

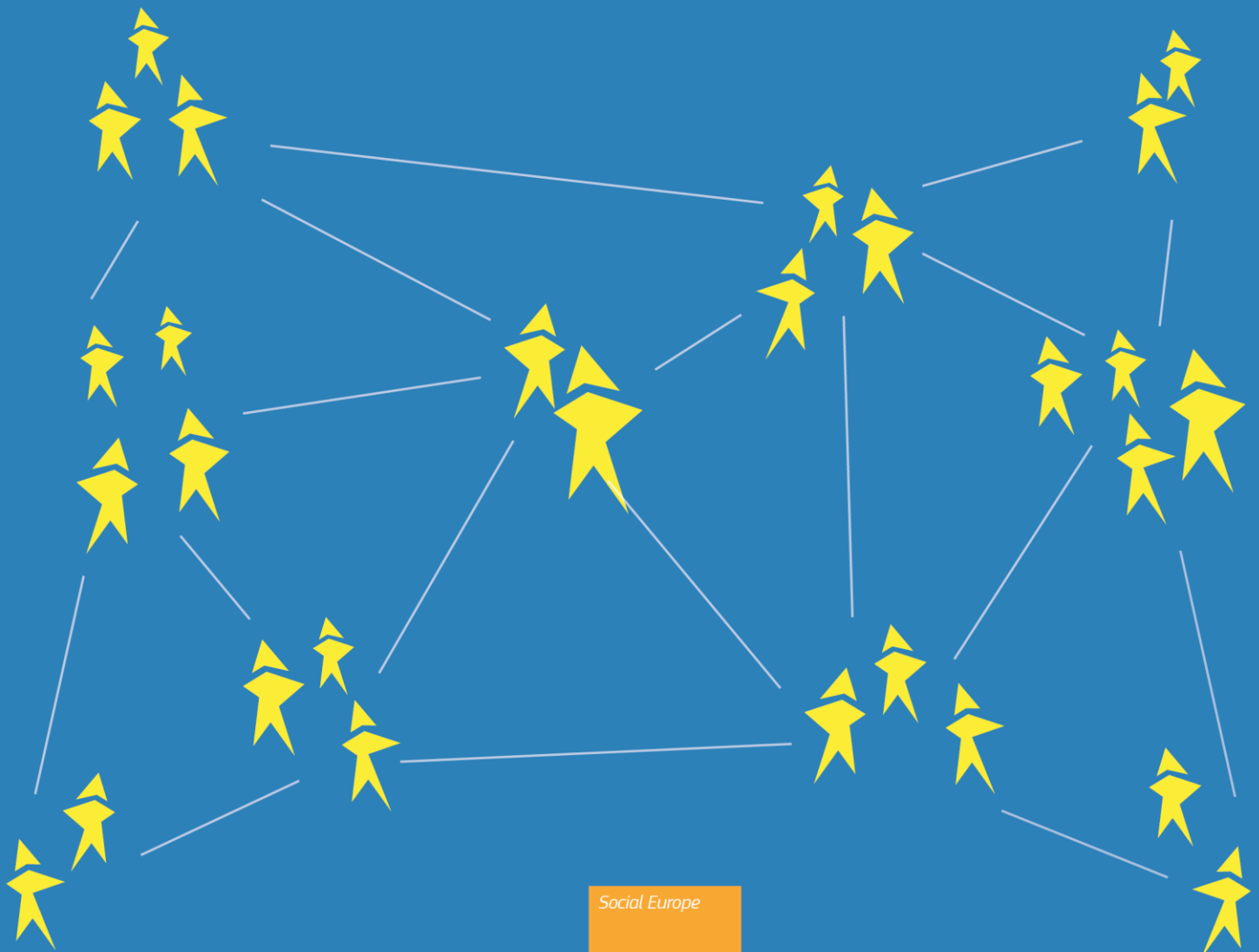


EUROPEAN SOCIAL POLICY NETWORK (ESPN)

Social protection expenditure and its financing in Europe

A study of national policies

Slavina Spasova and Terry Ward



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

European Social Policy Network (ESPN)

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2019

Slavina Spasova (OSE – European Social Observatory) and Terry Ward (Applica)

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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 Analytical Support on the Socio-Economic Impact of Social Protection Reforms (ASISP) and the MISSOC (Mutual Information Systems on Social Protection) secretariat.

The ESPN is managed by the Luxembourg Institute of Socio-Economic Research (LISER), APPLICA and the European Social Observatory (OSE).

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OFFICIAL COUNTRY ABBREVIATIONS

A. EU Countries

EU countries prior to 2004, 2007 and 2013 enlargements (EU-15)		EU countries that joined in 2004, 2007 or 2013	
BE	Belgium	<i>2004 Enlargement</i>	
DK	Denmark	CZ	Czechia
DE	Germany	EE	Estonia
IE	Ireland	CY	Cyprus
EL	Greece	LV	Latvia
ES	Spain	LT	Lithuania
FR	France	HU	Hungary
IT	Italy	MT	Malta
LU	Luxembourg	PL	Poland
NL	The Netherlands	SI	Slovenia
AT	Austria	SK	Slovakia
PT	Portugal		
FI	Finland	<i>2007 Enlargement</i>	
SE	Sweden	BG	Bulgaria
UK	United Kingdom	RO	Romania
		<i>2013 Enlargement</i>	
		HR	Croatia

In EU averages, countries are weighted by their population sizes.

B. EU Candidate countries and potential candidate countries covered by the ESPN

EU candidate countries and potential candidates	
AL	Albania
BA	Bosnia and Herzegovina
ME	Montenegro
MK	North Macedonia
RS	Serbia
TR	Turkey
XK*	Kosovo ¹ *

¹ *This designation is without prejudice to positions on status, and is in line with UNSCR 1244 and the ICJ Opinion on the Kosovo Declaration of Independence.

PREFACE

Comprehensive social protection systems are the cornerstones of European Union (EU) Member State welfare systems and at the heart of the “European social model”. The key role of social protection is enshrined in the Treaty on the Functioning of the European Union (TFEU, Art. 9), which stipulates that *“in defining and implementing its policies and activities, the Union shall take into account requirements linked to [...] the guarantee of adequate social protection, [...] and protection of human health”*.

Over the past few decades, structural pressures such as demographic ageing and changing patterns of work as well as the consequences of the Great Recession which struck European economies in 2008-2010 have challenged national social protection systems in their role of ensuring adequate support to all those in need. In this context, policy responses to these challenges have had a major effect on expenditure levels (mainly cost-containment policies) and the financing mix of social protection systems (e.g. reduced social contribution rate or exemptions from payment).

The focus of the present Synthesis Report is to analyse the changes in expenditure on social protection systems and their financing across Europe. The report reviews the main sources of financing involved, how they differ between countries and the changes which have occurred in their relative importance since 2005. It starts by examining the level of social protection expenditure in European countries which needs to be financed, and the changes in this over the period 2005 to 2016. It concludes by considering the strengths and weaknesses of the ways in which social protection is financed in different countries, the challenges that may arise, or become more serious, in the coming years, and the potential for meeting these challenges.

The European policy context

The EU's involvement with social protection dates back to the beginning of the 1990s. These were years of low economic growth, high unemployment and rising poverty, which were increasing policy concerns for national governments. Against this background, the first step towards including social protection on the EU agenda came in 1992. The Council of the EU adopted two Recommendations: one identifying commonly held objectives (“guiding principles”) with regard to social protection (Council of the European Union, 1992a), and the other defining common criteria to ensure sufficient resources and social assistance in the social protection systems of the Member States².

The two Recommendations – which included little on the financing of social protection³ – prepared the ground for enhanced EU co-operation based on common objectives and multilateral surveillance. In the slipstream of the Treaty of Amsterdam – which came into force on 1 May 1999 and placed employment and social protection at the heart of the Community/Union⁴ – the European

² Council of the European Union (1992b).

³ The first Recommendation stipulates that “it is for Member States to determine how their social protection schemes should be framed and the arrangements for financing and organizing them” (Council of the European Union, 1992a: 50). The second Recommendation stipulated that “it is important to take account during the progressive implementation of this recommendation of the availability of financial resources” (Council of the European Union, 1992b: 47).

⁴ The Treaty of Amsterdam incorporated the Maastricht “Agreement on social policy” into the EC Treaty.

Commission published, in July 1999, a “Concerted Strategy for Modernising Social Protection”⁵, which was adopted by the Council of the EU four months later. The Concerted Strategy was then politically approved at the highest level: the Lisbon European Council provided the mandate to launch “Open Methods of Coordination” on social inclusion (launched in 2000), pensions (2002) and healthcare and long-term care (2004). Around the same time, in 2001, the Economic and Financial Affairs (ECOFIN) Council was set up and started to discuss the budgetary challenges posed by ageing populations (EPC 2001) in the context of the EU’s Broad Economic Policy Guidelines⁶.

With the setting up of the European Semester in 2011, EU policy guidance in respect of social protection has addressed the performance of social protection systems, in terms of both effectiveness and efficiency. Indeed, Country-specific Recommendations (CSRs) have centred on to the long-term fiscal sustainability of pensions and healthcare systems in the context of population ageing, and to the promotion of cost-effective and safe complementary savings for retirement.

In 2015, at the request of the Council of the EU, the Social Protection Committee (SPC) produced a report on the financing of social protection systems, in view of social spending being a key element in post-crisis consolidation efforts⁷. The report stipulated that reform strategies “*must be designed in such a way that they fully achieve their social goals at the lowest possible budgetary costs and in ways that support economic performance, thanks to a strong focus on investment in human capital, strong labour force participation and financing methods that minimise distortions and disincentives which could weaken the economy*”. Moreover, policy guidance from the Commission and SPC has also highlighted the need to prevent certain risks as an efficient tool to reduce social expenditure.

More recently the Commission and the SPC have jointly encouraged Member States to implement active policies for the inclusion in the labour market of specific groups (such as people with disabilities) and have emphasised the necessity for social protection systems to better adapt to the needs as well as to the contribution capacities of “various types of self-employed and atypical workers”⁸. The 2018 (annual) SPC report stresses the greater fiscal space “to address adequacy concerns” provided by the on-going economic recovery.

In this post-crisis context, where the adequacy of social protection systems is gradually being taken more into account, the European Pillar of Social Rights (EPSR) has an entire Chapter with nine key principles on social protection and social inclusion (linked to access to and adequacy of pension systems, healthcare, long-term care, unemployment benefits, childcare etc.). Among the concrete offspring of the EPSR (Principle 12) is the proposal for a Council Recommendation on Access to social protection for workers and the self-employed, on which the Council reached political agreement in December 2018.

The economic recovery after the crisis (although still hesitant in many countries) brought with it favourable economic conditions providing more fiscal space for social investment and social

⁵ European Commission (1999a).

⁶ For an analysis of the EU’s policies on social inclusion during the period 1992-2005 see Marlier *et al.* 2007.

⁷ European Commission and Social Protection Committee (2015).

⁸ Commission/SPC report 2017.

protection⁹. However, global uncertainties are still looming over Europe, and less favourable economic conditions¹⁰ are already around the corner. To reach the level of ambition set out in the EPSR, the EU and its Member States will have to secure a sound financing basis for social protection systems.

A Synthesis Report from the European Social Policy Network

With a view to supporting its analysis and forthcoming initiatives, the European Commission asked the national experts of the European Social Policy Network (ESPN) to produce Country reports to describe the financing of social protection in their countries and to analyse country-specific challenges. This has been done with a view to:

- supporting the Commission's analysis and contributing to the current debate on the fiscal space for, and corresponding design of, social protection;
- supporting the Commission's analysis, in view of the above-mentioned short-term and structural challenges (population ageing, changing work patterns, "new social risks");
- feeding into the European Semester and the Social Open Method of Coordination (OMC) and supporting Member States' investment in social protection;
- updating and refining the analysis of social protection financing arrangements, effectiveness and efficiency of resource allocation prepared jointly by the SPC and the European Commission in 2015.

The present Synthesis Report: a) describes the state of play as regards financing models for European social protection systems, as well as their strengths and weaknesses; b) identifies the changes in levels of financing for social protection systems during the period 2005-2016; c) analyses the changes in the main sources of financing for these systems during the period 2005-2016 (or the latest year for which data are available); and d) assesses the main impact of past (since 2005) reforms and the possible impact of recent and current changes.

The question that guides the Synthesis Report is the following: *What are the challenges facing policymakers in financing social protection in Europe, and how are they responding to them?*

The Synthesis Report, therefore, provides answers to the following sub-questions:

- i. *How have levels of social protection expenditure which need to be financed changed since 2005? What are the main underlying reasons for these changes? What role have national reforms to social protection systems played in the changes which have occurred?*
- ii. *How have sources of financing changed since 2005? What are the main underlying reasons for these changes? What role have national reforms to social protection financing played over the past decade in the changes which have occurred?*

⁹ See Spring Package 2018, <https://ec.europa.eu/info/sites/info/files/2018-european-semester-country-specific-recommendation-commission-recommendation-communication-en.pdf>.

¹⁰ See Spring Package 2019, <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52019DC0500&from=EN>

- iii. What is the ESPN national experts' assessment of the current mix of financing sources? What are likely to be the biggest challenges to social protection financing in the years ahead?*

The analysis illustrates the main challenges and trends in national policies on the basis of examples. Countries which have developed along similar lines are listed in brackets so that the reader interested in knowing more about these can examine the 35 ESPN Country reports¹¹. In producing their reports, ESPN national experts cite many different sources in support of their analysis. References to these are not included in the present report. Readers wishing to follow up the original sources should consult the individual Country reports.

This Synthesis Report draws on the Country reports prepared by the 35 ESPN Country Teams¹². It was written by Slavina Spasova and Terry Ward, from the ESPN's Network Core Team.

¹¹ Here and throughout the report, the countries in brackets are provided as examples and the lists are not necessarily exhaustive.

¹² For a presentation of the ESPN Network Core Team and the 35 ESPN Country Teams, see Annex 2. The 35 ESPN national expert reports on Financing Social Protection can be downloaded here (ESPN page on the European Commission website).

EXECUTIVE SUMMARY

The Synthesis Report is based on: a) an analysis of key social protection indicators and of the breakdown of financing by function or risk (such as old-age, healthcare or unemployment); and b) in-depth national contributions prepared by 35 ESPN Country Teams. It contains 12 key findings grouped under 7 main points.

Expenditure on social protection in the EU over the period 2005- 2016: a piecemeal and slow increase

Overall expenditure on social protection averaged 28% of GDP in the EU in 2016 and increased by just over 2 percentage points (p.p.) over the period 2005-2016. This increase, however, was by no means a smooth one and a somewhat different picture emerges if the change in expenditure is measured in real terms (i.e. adjusted for inflation) rather than relative to GDP. **The first key finding of the report is that the Global Recession had a significant impact on social protection expenditure.** The increase in social protection expenditure as a share of GDP was concentrated in the period before 2010, **with most of the increase, being crisis-driven, occurring between 2008 and 2009.** This was not only because of the sharp decline in GDP fluctuations: expenditure also went up in real terms, largely as a response to the growing number of unemployed and people in need of social support.

After 2010, in virtually every country, budgetary consolidation led to measures being undertaken to contain or reduce spending. From 2010 to 2012, expenditure on social protection in the EU as a whole remained unchanged in real terms and fell relative to GDP: While it increased in real terms from 2012 to 2016, the growth was only around 1% a year, less than real growth of GDP. In 2016, therefore, social protection expenditure in the EU was 1 p.p. of GDP less than six years earlier.

Countries have had diverse spending patterns during this period, but three groups of EU Member States can be identified in terms of social protection expenditure relative to GDP: “high spenders”, “medium spenders” and “low spenders”. Significantly, the composition of these groups barely changed over the period 2005-2016. The groups reflect, *grosso modo*, geographical areas in Europe: Nordic and Continental countries (“high spenders”), followed by Southern European Countries (“medium spenders”) and then by Central and Eastern European Countries (“low spenders”). Although not entirely uniform, the relationship between GDP per head and social protection expenditure is also reflected in these three groups of countries, with high GDP per head countries in the “high spenders” group and those with low GDP per head in the “low spenders” group.

Linked to this grouping, the **second key finding is that the tendency for expenditure on social protection as a share of GDP, and in real terms, to increase by more in the “low spending countries” (mostly Central and Eastern European Countries) than elsewhere seems to have been brought to a halt by the Global Recession and its aftermath.** In the years up to 2008, growth in expenditure in “low spending” countries was higher than elsewhere. After 2010, this has no longer been the case.

Financing of social protection in the EU during the period 2005- 2016: policy reforms matter

On average in the EU, social contributions financed over half (55%) of total expenditure on social protection in the EU in 2016, with 40% coming from general government revenue, predominantly from general taxation. The proportion of financing from social contributions ranged from close to 80% in Estonia and around 75% in Lithuania and Czechia, to under 40% in the UK, Ireland and Malta and under 20% in Denmark.

A third key finding is that over the period 2005-2016, there was a tendency for the share of social contributions in overall funding of social protection to decline in the EU (by some 4 p.p.), accompanied by an increase in the share of general government revenue (2.5 p.p.).

Linked to this, a fourth key finding is that in nearly all countries, the government contribution came entirely or almost entirely from general taxation, and only in four countries did a non-negligible part come from earmarked taxes: some 10% in Luxembourg (4% of total social protection financing), 21% in Poland (also 4% of total financing), 26% in Belgium (10% of total financing) and as much as 66% in France (24% of total financing).

For financing, as for social protection expenditure, there is a need to consider developments before the Global Recession and those after. A fifth key finding of the report is therefore, that there was a widespread decline in the financing of social protection from social contributions over the period 2005-2016 which was almost wholly concentrated in the five years 2005-2010, continuing a longer-term trend dating back to 2000 at least. Indeed, in the EU, the share of contributions in overall financing fell by over 2 p.p. on average between 2000 and 2005, while the share from general government revenue increased to a similar extent. Between 2010 and 2016, the share of financing from social contributions fell only marginally and accordingly there was only a slight increase in the share from general government revenue to compensate for the reduction not only in contributions but also in interest from investments.

The reduction over the period 2005-2016 in the share of financing of social protection accounted for by social contributions, which are predominantly levied on wages and salaries, is, in general only partly attributable to decline in the latter relative to GDP. Indeed, wages in GDP increased slightly over this period as a whole. The sixth key finding is, therefore, that there appears to be only a limited relationship between the change in the wage share and the change in the share of contributions in financing; and changes in the social protection mix are more linked to policy reforms, especially in respect of changes of the financing mix for old-age benefits and healthcare (see below).

There have also been significant changes in the relative shares of social contributions paid by employers and employees, mostly as a result of reductions in contribution rates and the provision of concessions to employers. The seventh key finding is, therefore, that due to policy reforms throughout the 2005-2016 period, the share of social contributions from employers declined and there was a shift in the financing raised from contributions from employers to employees. The share of revenue raised from the self-employed remained relatively small and broadly unchanged over the period.

The eighth key finding as regards the overall mix of financing for social protection is that in most countries there was little change over the 2005-2016 period in the way social protection systems are funded. In countries where either social contributions or taxes were the main means of financing expenditure at the beginning of the period, this continued to be the case in 2016, though there are a few countries where there was substantial shift in the financing mix.

Expenditure and financing of social protection by function

The overall developments in social protection expenditure and financing outlined above are mostly linked to changes in old-age benefit and healthcare schemes, which in 2016 accounted for 40% and 30%, respectively, of total spending on social protection. These changes are linked in part to the Global Recession though mostly to underlying structural changes, such as population ageing in particular, and the policy response to these.

Old-age benefits: slow increase in expenditure and a shift towards financing from taxation

Over the period 2005- 2016, expenditure on old-age benefits increased by 1 p.p. in the EU as a whole. It also increased in real terms relative to the growth of population aged 65 and over in nearly all Member States, though it declined in Greece, Italy and Slovenia and remained unchanged in the Netherlands. The increase, however, was mostly concentrated in the period up to 2010. Between 2010 and 2016, real expenditure on old-age benefits relative to the population aged 65 and over declined in almost half the EU Member States (13 of the 28). The implication is that the real value of old-age benefits in these countries failed to keep pace with the growth in the number of people over the most common age of retirement.

The ninth key finding of the report is, therefore, that expenditure on old-age benefits has been curbed through long-term policy reforms in many countries. Cost-containment has focused mainly on increasing the pensionable age and, closing down early retirement opportunities, though in some cases, there have even been cuts in benefits and freezes in indexation since 2010.

Old-age benefits in the EU are mainly financed by social contributions. This is the case in nearly all types of social welfare system, even in those mainly funded by taxes. In 2015, social contributions accounted, on average, for 65% of the financing of old-age pensions in the EU, while government revenue from taxation accounted for only 20%, the rest coming from interest on investments and other sources.

There were some significant changes in the financing of old-age benefits over the 2005-2015 period, mainly as a result of policy. Over the period 2005-2010, there was a widespread shift from social contributions to general government revenue. The shift was most pronounced in several Central and Eastern European countries, mainly due to the introduction of statutory funded pension schemes (at the end of the 1990s- mid 2000s), triggering, as they matured, a need for general government financing.

Over the following five years, from 2010-2015, the shift in funding, though less widespread, was mostly in the other direction, from government revenue to social contributions. This was especially the case in a number of Central and Eastern European Countries where there was a major reverse shift with regards to statutory funded pension schemes (e.g. closing down of schemes, scaling down contributions).

These shifts were accompanied by a reduction in the share of financing of old-age benefits over the 2005-2015 period from employers' contributions (of around 2 p.p. on average) and a shift to employees' contributions in most EU countries for which there are data.

Healthcare and sickness benefits: expenditure restraint and stability of the financing mix

Spending on healthcare, which also includes sickness benefits, accounted for 30% of total social protection spending in the EU in 2016. Over the period 2005-2016 as a whole, spending on healthcare rose as a share of GDP in the majority of countries, though in only four of these (Slovakia, the UK, the Netherlands and Germany) did it increase by more than 1 p.p. In six countries (Hungary, Ireland, Portugal, Cyprus, Greece, and Luxembourg), it declined, (though in Ireland, this mainly reflects the very high rate of GDP growth recorded). The overall developments over these 10 years, however, conceal a sharp difference between the years before 2010 and the years after. Between 2005 and 2010, expenditure on healthcare increased relative to GDP in 24 of the 28 EU Member States, between 2010 and 2016, it fell in 18 of them.

In terms of real expenditure, the overall picture is also one of restraint after 2010, spending in real terms in the EU growing at half the rate between 2010 and 2016 as over the previous five years, in seven EU Member States (Greece, Cyprus, Portugal, Italy, Spain, the Netherlands and Belgium), real spending declined over the later period (by 35% in Greece) and remained unchanged in another four (Croatia, Denmark, Finland and Italy)

The tenth key finding is that despite population ageing and the increasing pressure on spending exerted by advances in treatments, there has been a slowdown in the growth of expenditure on healthcare both relative to GDP and in real terms in the EU on average over recent years

Similarly to expenditure on old-age benefits, the restraint in healthcare (and sickness benefit) spending over the period 2010-2016 was a result of deliberate government policy. This included a brake on pharmaceutical expenditure, use of generic drugs and changes to co-payment systems, and the introduction of a number of cost-containment measures in hospitals. Some of the slowdown was also linked to a tightening of eligibility conditions for sickness benefits and a shortening of the period of receipt in some countries during the core years of the crisis.

As regards the financing mix for healthcare, in most countries, there has been no long-term shift in either away from or towards social contributions since 2005. There are, however exceptions. In Lithuania and Cyprus, there has been a move away from a tax-based to an insurance-based system, the rates of existing social contributions being increased and new ones introduced. On the other hand, in Hungary, the move has been in the opposite direction, towards more reliance on taxation.

Other benefits: changes in expenditure and financing with a focus on family benefits

Expenditure on "other" benefits – family, disability, survivors', unemployment, housing and social exclusion benefits – increased relative to GDP in around half the EU Member States over the period 2005-2016 and declined in the other half. Moreover, except over the recession years (2008-2010), when spending on unemployment benefits increased in virtually all countries, there is no common

pattern of change in expenditure. There are, however, several changes which stand out. In particular, there was a marked increase in spending on family benefits in Poland, Bulgaria and Italy, accompanied in the latter by a significant expansion in unemployment benefits as the coverage of support was extended.

In most cases, the mix of sources of financing for the different kinds of “other” benefit remained broadly the same over the period. As regards family and child benefits, however, there are a number of exceptions. In Bulgaria, Finland, Latvia and Lithuania, the share of financing from social contributions increased markedly, accompanied by an equivalent reduction in the share of funding from taxation. On the other hand, in Italy, Greece and, above all, the Netherlands, there was a substantial reduction in the share of funding from contributions and a parallel increase in the share from taxation.

The eleventh key finding is that the significant changes in the financing mix of family benefits that occurred over the period were policy-driven, were linked to the changing structure of society and the labour market. These changes involved a deliberate expansion of public expenditure on the benefits concerned, financed from general taxation (in Italy, and Poland), re-designed family benefit schemes and newly implemented schemes (in the Netherlands) and the introduction of contribution-based parental benefits in 2008 (Latvia).

A need for diversifying social protection financing?

There have been various debates and reforms related to the strengths and weaknesses of social protection funding in the face of structural changes, such as population ageing, changes in the labour market (e.g. new forms of work) and the increase in “new social risks”, which took place in several of the countries examined in this report. The Synthesis Report takes stock of several of the challenges for the financing mix which are highlighted by the national ESPN experts. Adaptability to demographic change is most challenging for old-age benefits whatever the funding model and increasingly so for healthcare and long-term care systems. At the same time, the experts consider that the strength of their national systems depends on the strong redistributive effects of pay-as-you-go (PAYG) pension schemes and healthcare systems, in particular. However, several experts point to the main weaknesses affecting social redistribution resulting from the insufficiently progressive nature of taxes and social contributions. Experts also indicate that national social protection systems are vulnerable to structural changes in the labour market (temporary and part-time employment, including new forms of work) as well as to new social risks. Though they have been adapting, the pace has been slow. As might be expected, tax evasion is also seen as a significant scourge, exacerbating the difficulties of financing social protection.

What emerges from the national reports, and this is the twelfth finding of this Synthesis Report, is that the watchword for the future of social protection is “diversification” of financing. Debates on taxing property and corporations are highlighted by several experts, who suggest that the social protection financing mix could be diversified by extending taxation on both of these, especially if these are earmarked for social protection.

INTRODUCTION

This report is concerned with the financing of social protection systems across Europe, the main sources involved, how they differ between countries and the changes which have occurred in their relative importance over recent years, and since 2005 in particular. It begins by examining the level of expenditure on social protection in European countries which needs to be financed and the changes in this over the period 2005 to 2016, the latest year for which comparable data are available. It then considers the way that expenditure is financed, focusing on the division between social contributions and general government revenue, or taxes, and how this division changed over the period concerned. This is followed by a more detailed examination of the main functions of social protection, or the risks that are covered, of the expenditure on these across Europe and the sources of funding for them, of the differences between countries in spending and the financing sources and of the changes in both since 2005. The focus is on old-age benefits and healthcare, which between them account for the largest part of overall expenditure and which together largely determine the need for financing. The final section considers the strengths and weaknesses of the way that social protection is financed in different countries, the challenges that may arise, or become more serious, in the coming years and the potential for meeting these challenges.

It should be pointed out at the start that the period covered includes the global recession which struck European economies in 2008 causing a sharp decline in GDP in nearly all cases, which inevitably affected the sources of financing for social protection as well as the need for spending. This was followed by a period of hesitant recovery, or prolonged recession in some countries, with virtually universal fiscal consolidation and severe constraints on public expenditure. Such a context makes it especially difficult to identify long-term trends in both expenditure and in the mix of sources of financing, to differentiate between temporary responses to the effect of the economic downturn on financing sources and more sustained shifts in the relative importance of social contributions and taxation. These trends will only become clear as data become available for more recent years as the recovery is sustained. Nevertheless, it is of interest to examine what happened up to 2016, to identify, in particular, the extent of any shifts in the financing mix over the period and to assess the implications for the capacity of countries to finance social protection in future years, given the developments in expenditure and the growth of new forms of employment relations.

It should also be noted that the main focus as regards social protection expenditure is on the level in relation to GDP, since this broadly determines the rates of social contributions and taxes that need to be imposed to finance spending, and on changes in the level, which have corresponding implications for changes in rates. However, changes in expenditure in real terms – i.e. at constant prices – are also examined, since these are relevant for assessing the extent of protection provided to those in need of support.

1 CURRENT LEVELS AND CHANGES IN SOCIAL PROTECTION EXPENDITURE

This section begins by examining the overall level of expenditure on social protection in relation to GDP in European countries and the extent of differences between them, on the basis of the ESSPROS (European System of Social Protection Statistics) data for 2016, the most recent year for which statistics are published. Secondly, it considers the changes in expenditure which have occurred over recent years, specifically, over the period 2005-2016, looking not only at the changes relative to GDP but also in real terms. Thirdly, it examines spending on social protection in relation to total public expenditure and the changes in this over the period, partly to see to what extent the fiscal consolidation which was implemented in nearly all countries affected this element of spending as compared with others. Fourthly, it takes explicit account of the financing of social protection which is raised from benefit recipients themselves by examining expenditure net of this amount, which arguably gives a more informative picture of the funding which needs to be raised to pay for the (gross) level of spending concerned. Fifthly, it considers the scale of tax expenditures, or the transfers which are effectively made through tax allowances or concessions of various kinds to help support particular social groups and which, to this extent, are equivalent to social benefits. It also considers at the same time mandatory private social protection expenditure which serves the same function as public social spending but which is not wholly included as part of this. Sixthly, it examines the varying importance of means-tested benefits across countries and the way this changed over the period since, because they are predominantly financed by taxation, it has implications for the mix of financing sources. Finally, it reviews the information available for candidate and potential candidate countries on all of these issues.

The aim throughout is to identify both common patterns and differences across countries as well as to consider the main factors underlying the changes that have occurred, attempting, in particular, to distinguish the effects of policy changes from those of developments in the economic and demographic situation.

1.1 Variations in social protection expenditure between countries and since 2005

1.1.1 Overall social protection expenditure in 2016

Expenditure on social protection varies markedly across EU countries in terms of its scale relative to GDP, ranging from 34% of GDP in France and 32% in Denmark and Finland to only 15% in Romania, Latvia and Lithuania. Member States can be divided, in a heuristic way, into three groups in this respect, using as a benchmark the EU average (28% of GDP in 2016) and drawing the dividing lines between groups where the differences between countries are relatively marked. There are, accordingly, high spenders (where expenditure is 28% of GDP or over in 2016), medium spenders (between 21% and 28% of GDP) and low spenders (less than 21% of GDP)¹³.

¹³ This grouping does not pretend to be scientific but serves the purpose of having a general overview of Member State expenditure. It classifies the Member States according to their expenditure on social protection in a heuristic way as there are discrete differences around the cut-off points, i.e. there are discrete gaps between the three groups. The low cut-off point of 21% is chosen because almost all of the “new” Member States (EU enlargements since 2004) have

This distinction also *grasso modo* divides countries by geographical area: Nordic and Continental countries are “high spenders”, Southern European Countries “medium spenders” and Central and Eastern European Countries “low spenders” (Table 1).

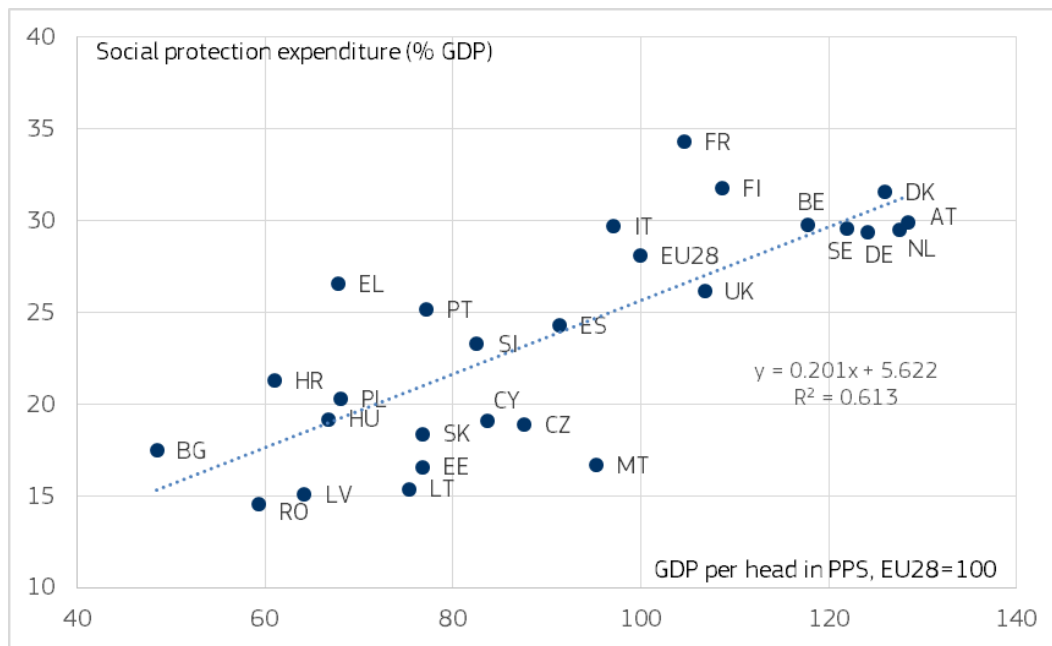
Table 1 Grouping of countries according to gross social protection expenditure as % of GDP, 2016 and 2005¹⁴

Year	High spenders	Medium spenders	Low spenders
2016 (EU 28)	AT, BE, DE, DK, FI, FR, IT, NL, SE	EL, ES, HR, LU, PT, SI, UK	BG, CY, CZ, HU, EE, IE, LT, LV, MT, PL, RO, SK
2005 (EU 28)	AT, BE, DE, DK, FR, SE	FI, HU, LU ¹⁵ , IT, NL, PT, SI, UK	BG, CY, CZ, EE, EL, ES, HR, IE, LT, LV, MT, PL, RO, SK

Source: Authors' own elaboration, based on Eurostat, ESSPROS Database.

The categories, in addition, reflect differences in GDP per head across countries, with the high GDP per head countries *tending to devote a larger share of resources to social protection and those with a low GDP per head a smaller share* (Figure 1).

Figure 1 Relationship between social protection expenditure and GDP per head in 2016



Note: Ireland, where GDP per head was 176% of the EU average in 2016 and social protection expenditure 15.8% of GDP, and Luxembourg, with GDP per head of 260% of the EU average and social protection expenditure of 22.0% of GDP, are excluded from the figure.

Source: Eurostat, ESSPROS Database and National accounts.

similar low values of social protection expenditure below 20-21%, both in 2005 and in 2016. The high cut-off points of 28% (2016) and 26% (2005) are based on the EU averages for these years.

¹⁴ The countries which change place in the cluster are denoted in bold.

¹⁵ If social protection expenditure is expressed in relation to GNI rather than GDP, Luxembourg, which would have the second highest level in the EU, shifts from the middle group to the high spending group. Croatia remains in the middle spending group and Ireland and Croatia remain in the low spending group.

The relationship between GDP per head and social protection expenditure, however, is not entirely uniform. Most especially, Luxembourg, the country with the highest level of GDP per head in the EU, is in the middle group in terms of social protection spending (which is only 22% of GDP); and Ireland, with the second highest GDP per head, is in the lowest spending group (with expenditure of just 16% of GDP). For both countries, however, there are questions over the suitability of GDP as a benchmark for measuring social protection expenditure and for both it is arguable that Gross National Income (GNI), which is lower than GDP, should be used instead which would significantly increase the relative level of expenditure (see Box 1)

Box 1 Alternative measures of income in Luxembourg and Ireland

For Luxembourg, the low level social protection expenditure relative to GDP is wholly explicable by the fact that the income of domestic residents who are the consumers of social protection is significantly less than GDP, since much of the GDP is generated in Luxembourg by commuters from neighbouring countries, who give rise to very little expenditure on social protection in Luxembourg itself. Measuring social protection expenditure in relation to the income earned by residents rather than the income generated in the country, i.e. in relation to Gross National Income (GNI) rather than GDP, would increase the figure in Luxembourg from 22% to 32% in 2016, i.e. shifting the country from a medium to a high spender on social protection.

For Ireland, the relatively low figure for social protection expenditure relative to GDP is also explicable, though only in part, by the fact that a significant part of GDP is produced by those not resident in the country, in this case by foreign companies located there. The profits earned by such companies add to GDP but not much to the income available to finance social protection, since such profits are taxed at relatively low rates (which is part of the reason for the companies being located in Ireland). The (imputed) value of the intellectual property of these companies is also located in Ireland (especially since 2015 when a number of large multinationals moved this to Ireland from other countries) again pushing up GDP, though in this case, also GNI as measured¹⁶. Relating social protection expenditure to GNI rather than GDP increases the figure from 15.8% to 19.3% in 2016 and to 24.4% in 2014 before the location of intellectual property in Ireland became such an issue. On the basis of the 2014 GNI figure, Ireland would, therefore, be a medium rather than a low spender on social protection. Accordingly, for both countries, it is arguable that Gross National Income (GNI) would represent a more meaningful base to take for measuring the relative scale of social protection expenditure^{17 18}.

¹⁶ The relocation of intellectual property to Ireland by multinationals in 2015 led to GDP growing in real terms by 25% between 2014 and 2015.

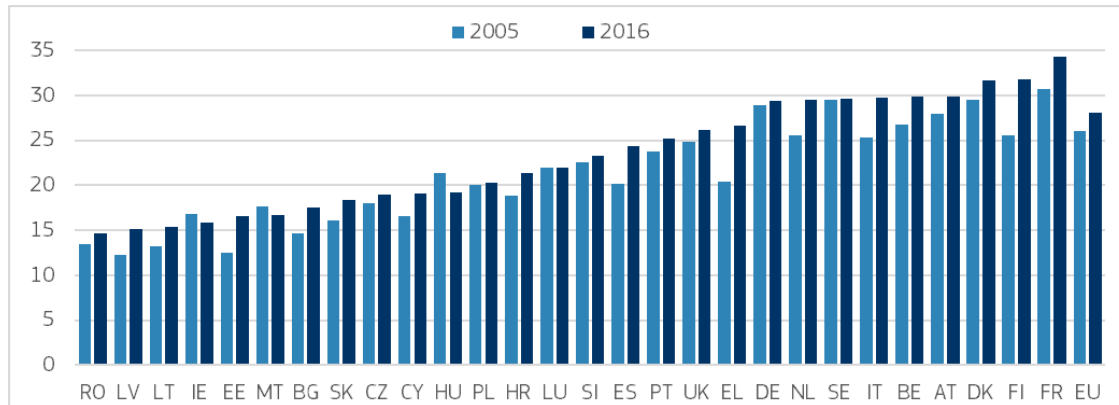
¹⁷ It is also arguable that cross-border commuters in Luxembourg and foreign companies in Ireland could potentially be asked to contribute more to the financing of social protection from the income they earn in the respective countries and, that, accordingly, relating social protection expenditure to gross national income (GNI) rather than GDP would exclude this income – or at least part of it in the case of Ireland – and would, therefore, tend to understate the income available for financing this expenditure. An equally more serious issue in the case of Ireland is that the relocation of intellectual property from other countries in 2015 had the effect of increasing GDP substantially, which means that the changes in social protection expenditure as a share of GDP calculated here serve to understate any increase in the figure and overstate any reduction. Since there is no easy way of adjusting for this, the figures for changes in social protection expenditure relative to GDP which span 2015 need to be regarded with caution.

¹⁸ For other countries, the difference between the GDP-based and GNI-based figures is much smaller, exceeding 1 p.p. only in Croatia (marginally) and Malta (by only slightly more). For Croatia, the figure is increased from 21.3 to 22.4%, in 2016 in Malta from 16.7% to 18.1%.

1.1.2 Changes in social protection expenditure since 2005

On average, expenditure on social protection in the EU as a share of GDP was higher in 2016 than 11 years earlier in 2005, by around 2 percentage points (p.p.). There are only three countries – Ireland, Malta and Hungary – where it was lower (Figure 2). In Greece and Finland, however, it was over 6 p.p. higher, and in Spain and Italy, 4 p.p. higher.

Figure 2 Social protection expenditure as % of GDP, 2005 and 2016



Note: Countries are ordered according to 2016 figures. 2005 figures for HR relate to 2008.

Source: Eurostat, ESSPROS Database

The three groups distinguished in Table 1 in terms of the level of social protection expenditure relative to GDP remained much the same over the period 2005-2016, with a few exceptions. In Finland, Italy and the Netherlands, social protection expenditure increased, moving them from the “medium” to “high spender” group. In Greece, Spain and Croatia, spending also increased, by 6 p.p., 4 p.p. and 2.5 p.p., respectively, moving them from the “low spender” group to the “medium” group. On the other hand, in Hungary, social protection expenditure declined over the period, moving it from the “medium spender” group to the “low spender” one.

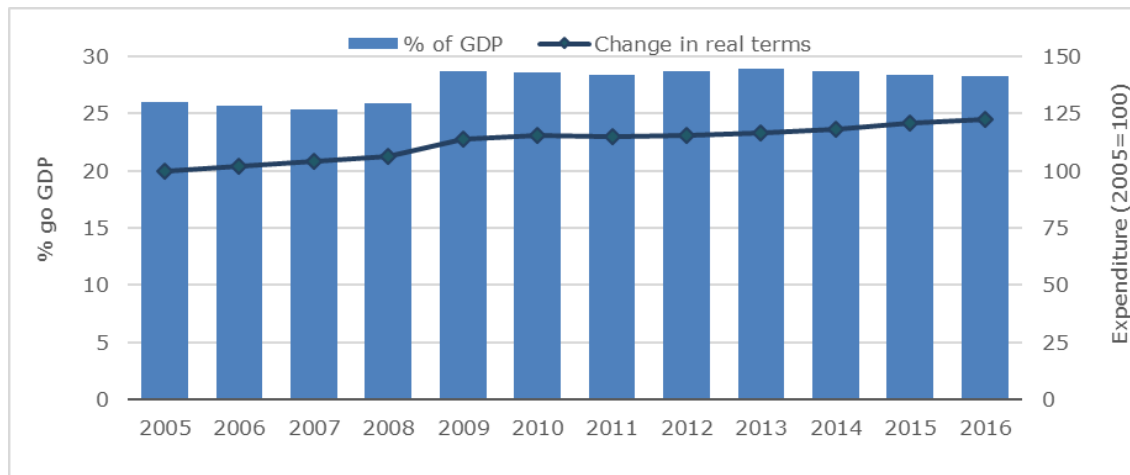
An examination of the changes which occurred within the period, however, reveals that the increase was largely concentrated in the period before 2010, since when, there has been a tendency for expenditure to fall relative to GDP. On average, therefore, expenditure in the EU was marginally lower in 2016 than in 2010, but in the latter year, it was almost 3 p.p. above the level in 2009, with all of the increase occurring between 2008 and 2009 (Figure 3).

Examining the changes in expenditure separately from GDP shows what happened to the former over the period. Adjusting for inflation, i.e. measuring expenditure at constant prices, indicates that average expenditure on social protection grew in real terms between 2005 and 2008, increased sharply in 2009 and then remained broadly unchanged up to 2012 before growing again up to 2016. Growth in real expenditure over these four years, however, was less than the real growth of GDP and over the period 2010-2016, it averaged only around 1% a year. This means that spending fell slightly relative to GDP over these six years given that the increase in prices for social protection expenditure was much the same as that for GDP as a whole, at least at EU level (see Box 2 and Table A.1 in Annex 1)¹⁹. (There were six countries in which the price increase for social protection

¹⁹ To clarify, the observed change in social protection expenditure relative to GDP is made up of two elements, The first is the change in real expenditure (i.e. expenditure measured at constant prices of what social protection cash and in-

expenditure diverged by more than 0.5 p.p. relative to the increase in the GDP deflator over the 2010-2016 period – Spain and Slovakia, where the increase was larger than for the GDP deflator, and Bulgaria, Latvia, Luxembourg and Malta, where it was smaller.)

Figure 3 Changes in social protection expenditure as % of GDP and in real terms, EU, 2005-2016



Source: Eurostat, ESSPROS Database

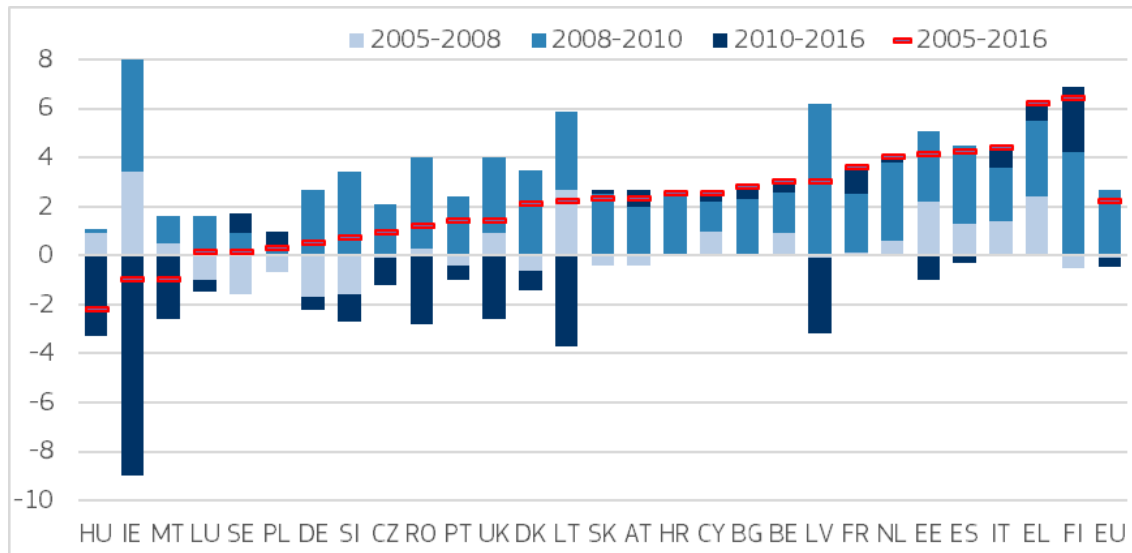
Box 2 The relationship between social protection expenditure and GDP

The observed changes in social protection expenditure relative to GDP are made up of two elements. The first is the change in real expenditure (i.e. expenditure measured at constant prices or nominal spending on social protection deflated by a price index for the goods and services which benefit recipients tend to purchase) relative to real GDP (i.e. GDP measured at constant prices). The second is the change in the price index used to convert social protection expenditure to real or constant price terms, relative to the price index used to deflate GDP to real term (the GDP deflator). An increase (or reduction) in the social protection expenditure price index relative to the GDP deflator can lead to nominal expenditure increasing (or declining) as a share of GDP in the same way as an increase (or reduction) in real expenditure relative to real GDP. If the two price indices (or deflators) change at the same rate then the change in social protection expenditure relative to GDP is determined solely by the relative real changes. Clearly both real increases in expenditure and relative price increases need to be financed. Table A.1 in Annex 1 shows the relationship between the price index used to deflate social protection spending to constant price terms and the GDP deflator over the period 2005-2016.

kind benefits are spent on) relative to real GDP (i.e. GDP measured at constant prices). The second is the change in the price index used to convert social protection expenditure to real or constant price terms and relative to the price index used to deflate GDP to real term (the GDP deflator). An increase (or reduction) in the average price of social protection expenditure relative to the GDP deflator can lead to expenditure increasing (declining) as a share of GDP just as much as an increase (reduction) in real expenditure. If the two price indexes (or deflators) change at the same rate then the change in social protection expenditure relative to GDP is determined solely by the relative real changes. Clearly both the real increases in expenditure and the relative price increases need to be financed.

Accordingly, the need for financing implied by the level of expenditure on social protection did not intensify over the period 2010-2016 and instead diminished slightly. This was the case in most countries (Figure 4) and contrasts with the experience in 2009, when expenditure increased markedly. The 2009 increase, however, was as much a consequence of the fall in GDP resulting from the global recession as of a rise in expenditure in real terms, though spending was pushed up by the rise in unemployment and the growing need for support as GDP and employment declined.

Figure 4 Change in social protection expenditure as % GDP, 2005-2016 (percentage point change)



Note: No data for HR for 2005-2008
 Source: Eurostat, ESSPROS Database

The general tendency for social protection expenditure to rise in the years leading up to the global recession, to accelerate as the recession hit, and then to increase in line with GDP or slightly more slowly is common to most countries. There are, however, some differences in experience between countries, as revealed by a more detailed examination of the changes in each sub-period (see Table 2). Overall, however, there is no apparent relationship between the change in social expenditure as a share of GDP and the real rate of growth of expenditure over this period. This is most evident for Greece, which had the second largest increase in expenditure relative to GDP over the period 2005-2016 but the second smallest increase in expenditure in real terms. Moreover, many of the countries in which expenditure fell as a share of GDP or increased relatively little – Malta, Ireland, Luxembourg and Poland – had among the largest increases in real expenditure.

Table 2 Change in Social protection expenditure relative to GDP and in real terms, 2005-2016

	Percentage point change (% GDP)				In real terms (average % change per year)			
	2005-2008	2008-2010	2010-2016	2005-2016	2005-2008	2008-2010	2010-2016	2005-2016
EU28	-0.1	2.7	-0.4	2.2	2.1	4.0	1.0	1.9
Finland	-0.5	4.2	2.7	6.4	2.2	4.2	2.0	2.5
Greece	2.4	3.1	0.7	6.2	6.6	0.8	-3.0	0.3
Italy	1.4	2.2	0.8	4.4	2.3	2.5	0.3	1.2
Spain	1.3	3.2	-0.3	4.2	4.9	4.9	-0.6	1.9
Estonia	2.2	2.9	-1.0	4.1	11.2	2.1	2.8	4.9
Netherlands	0.6	3.2	0.2	4.0	3.9	4.5	0.8	2.3
France	0.1	2.4	1.1	3.6	1.9	3.7	1.8	2.2
Belgium	0.9	1.7	0.4	3.0	2.3	3.3	1.2	1.9
Latvia	-0.1	6.2	-3.1	3.0	6.9	9.9	0.5	3.9
Bulgaria	0.0	2.3	0.5	2.8	9.4	6.7	3.2	5.5
Croatia	:	2.5	0.0	2.5	:	1.2	0.3	0.5
Cyprus	1.0	1.2	0.3	2.5	6.4	2.8	-0.4	2.0
Austria	-0.4	2.0	0.7	2.3	2.2	2.8	1.3	1.8
Slovakia	-0.4	2.5	0.2	2.3	5.5	6.2	1.8	3.6
Lithuania	2.7	3.2	-3.7	2.2	14.1	-0.9	0.3	3.6
Denmark	-0.6	3.5	-0.8	2.1	1.3	4.2	0.8	1.6
Portugal	-0.4	2.4	-0.6	1.4	0.6	5.2	-0.6	0.7
UK	0.9	3.1	-2.6	1.4	2.3	4.6	0.3	1.6
Romania	0.3	3.7	-2.8	1.2	14.1	7.3	0.6	5.3
Czechia	-0.1	2.1	-1.1	0.9	3.5	4.1	0.9	2.2
Slovenia	-1.6	3.4	-1.1	0.7	2.2	3.9	0.4	1.5
Germany	-1.7	2.7	-0.5	0.5	0.2	4.2	1.9	1.8
Poland	-0.7	0.4	0.6	0.3	4.8	4.1	3.6	4.0
Luxembourg	-1.0	1.6	-0.5	0.1	4.0	4.9	2.8	3.5
Sweden	-1.6	0.9	0.8	0.1	0.9	1.9	2.6	2.0
Ireland	3.4	4.6	-9.0	-1.0	6.9	9.0	-0.6	3.1
Malta	0.5	1.1	-2.6	-1.0	4.3	4.6	3.4	3.8
Hungary	0.9	0.2	-3.3	-2.2	2.8	-2.8	-0.4	0.0
<i>Serbia</i>	<i>0.0</i>	<i>1.0</i>	<i>-2.4</i>	<i>-1.4</i>	<i>:</i>	<i>0.5</i>	<i>-0.5</i>	<i>-0.2</i>
<i>Turkey</i>	<i>0.8</i>	<i>1.4</i>	<i>-0.8</i>	<i>1.4</i>	<i>7.1</i>	<i>8.1</i>	<i>5.8</i>	<i>6.7</i>

Note: Countries are ordered in terms of the change in expenditure as a % of GDP. For Croatia and Serbia, the change for 2005-2016 relates to 2008-2016 and for Turkey to 2005-2015. For Turkey, the change for 2010-16 relates to 2010-2015.

Source: Eurostat, ESSPROS Database

The pre-crisis period (2005-2008)

Between 2005 and 2008, expenditure on social protection in real terms grew in all countries, and by as much as 14% a year in Lithuania and Romania. The change relative to GDP, however, varied, being positive in the majority of countries (BE, CY, EE, EL, ES, FR, HU, IE, IT, LT, MT, NL, RO and UK) and negative in the others (AT, BG, CZ, DE, DK, FI, LU, PL, PT, SI and SK). Those countries in which expenditure as a share in GDP increased were to a large extent in the “low spenders” group (mostly Central and Eastern European Countries and Ireland) described above, as the countries concerned, which were tending to experience relatively high growth in GDP, spent more on social protection. On the other hand, in the “high spenders” group, there was a tendency for expenditure to decline relative to GDP – most markedly in Sweden, where it fell by 2 p.p. relative to GDP. There was, therefore, some tendency, if limited, for the change in social protection expenditure to be inversely related to its initial a share of GDP over these three years.

There are differing underlying reasons for these changes (see the discussion on policies below and in Section 3), but in many cases, the change in expenditure relative to GDP was a result of macroeconomic developments affecting the latter. For instance, in Slovakia, expenditure grew significantly in real terms, although expenditure relative to GDP fell slightly. This was both because of the relatively high GDP growth in real terms (by 27% over the period) and because the price index of GDP (i.e. the GDP deflator) increased much faster than that of social protection expenditure (so pushing up nominal GDP relative to social protection spending) (Table A.1 in Annex 1).

The recession years (2008-2010): growth in expenditure

During the first years of the crisis, 2008-2010, social expenditure grew in real terms in all countries, except in Lithuania and, most notably, in Hungary, where it fell by almost 3% over the two years (see Box 3). While in most cases, the growth rate for spending was higher than in the previous years as the need for income support increased, there were comparatively few countries where it was substantially higher. In all countries, expenditure rose in relation to GDP as the latter fell. The increase was especially large in countries where GDP fell by most (in Ireland and Latvia, in particular). Only in two countries, Hungary and Lithuania, did social protection expenditure in real terms fall during this period. Box 3 illustrates the significant impact of the 2008-2010 economic downturn on the values of social protection expenditure as a share of GDP for countries that can be considered as “outliers”, as well as two different ways of tackling the situation. Latvia and Ireland indeed applied a counter-cyclical approach to social protection spending in a context of a sharp decline of GDP, while Hungary implemented pro-cyclical policies.

Box 3 The outliers at opposite ends of the spectrum:
Latvia and Ireland versus Hungary
(2008-2010)

Latvia and Ireland: A sharp rise in social expenditure

In Latvia, the growth in social spending both in relation to GDP and in real terms over the two years 2008-2010 was the highest in the EU, following significant earlier increases in 2005–2008. During the recession years, expenditure on social protection in real terms was the highest in the EU: 9.9%. Similarly, social protection expenditure as a share of GDP rose by almost 6 p.p. from 2008 to 2010. At the same time, GDP fell by 18% in real terms over the period, so itself tending to raise expenditure relative to GDP. The increase in social protection spending is due not only to a rise in recession-related expenditure (on unemployment benefits and social support) but also to an increase in pensions and healthcare, and, to a lesser extent, in disability benefits.

In Ireland, social protection expenditure increased by over 3 p.p. relative to GDP between 2005 and 2008, and by almost 5 p.p. from 2008 to 2010. At the same time, Ireland had the second highest increase in social protection spending in real terms (+9%) between 2008 and 2010. The Irish ESPN expert stresses that the volatility in the economic situation was the main reason for the increase in social protection expenditure. In 2005 and 2006, GDP was rising and unemployment falling, but this pattern was reversed from 2007 to 2013. Unemployment benefit expenditure rose from 0.7% of GDP in 2005 to 2.4% in 2010. Another defining feature of the Irish social protection system – the relative importance of means-tested programmes – further explains the increase in expenditure. Their importance rose significantly during the crisis period, due to a growing need for income support and a tightening of the eligibility conditions for the equivalent insurance-based benefits (e.g. illness and unemployment benefits: there are insurance-based and a means-tested ones). Accordingly, it became more difficult to qualify for insurance-based benefits leading to a growth in beneficiaries of the means-tested ones.

Hungary: The steepest fall in social expenditure in the EU

In stark contrast to other Member States, social protection expenditure in real terms in Hungary experienced the sharpest decline in the EU over the period 2008-2010 (-3%), when there was a significant downturn in the economy: it thus acted pro-cyclically rather than counter-cyclically, after having seen a higher growth rate than GDP over the previous period. Over the period 2008-2010, according to the government, regular excessive budget deficits throughout the 2000s, and the resulting high rates of public debt, left little room for manoeuvre. It therefore introduced various austerity measures in order to cut public expenditure, which affected, among other things, social protection.

Source: ESPN Country reports (2019)

The end of the crisis and post-crisis recovery period (2010-2016)

After 2010 and the economic shock of the global recession, the widespread upward trend in spending on social protection came to end. In the period up to 2016, the growth of expenditure in real terms was in nearly all cases either less than the growth of GDP or only a little higher and, accordingly, there were few countries where spending increased more than slightly relative to GDP.

There are only two countries, France and Finland, where social protection expenditure as a share of GDP increased by more than 1 p.p. of GDP over this period. These, it should be noted, are the countries with the highest expenditure relative to GDP in 2016. In another five – Austria, Greece, Italy, Poland and Sweden – it increased by over 0.5 p.p. of GDP, and of these only Poland is among the group of “low” spenders” on social protection. In Greece and Italy, the increase was largely the result of a reduction in GDP in real terms (2% in Italy and 18% in Greece) given that the change in prices over the period – a reduction in Greece and an increase in Italy – was much the same for social protection spending as for GDP (see Table A.1 in Annex 1). There are multiple factors behind these developments. For example, the economic situation led to significant reductions in GDP, and growth remained sluggish or non-existent up until 2013 in many countries, and there were also changes in expenditure for particular risks, or functions, especially for old-age pensions and healthcare, and to some extent unemployment and family benefits (see Section 3.1.5). Box 4 presents examples of countries with the highest increases in social protection expenditure as a share of GDP during the period 2010-2016.

Box 4 Country examples of increasing social protection expenditure over the period 2005-2016

In Finland, the increase in social protection expenditure as a share of GDP was mainly crisis-driven. Although there are several reasons for the expansion of social spending in relation to GDP, the major explanation is that expenditure was pushed up by declining employment while GDP shrank. From 2008 to 2009, GDP fell by over 8% in real terms, while the increase in prices was much the same for social protection spending as for GDP. The economic recovery which followed (2009 to 2011) was short-lived and there were three consecutive years of falling GDP. Unemployment increased and became an important driver of expansion in social protection spending; real expenditure on three unemployment-related benefits increased by 71% percent between 2007 and 2016. Similarly, spending on pensions which increased substantially by 4% in real terms during the period 2005-2016.

In France, expenditure on social protection increased steadily over the entire period under scrutiny: from 31% of GDP in 2005 to 34% 2005 and 2016 as well as by 2.2% in real terms. According to the French ESPN team, social protection expenditure played an economic buffer role, increasing more than the revenue earmarked to cover it during years of low economic growth. This this was the case for expenditure on unemployment benefits and poverty, as well as for means-tested family and housing benefits.

Source: ESPN Country reports (2019)

There are eight Member States (CZ, EE, IE, HU, LT, LV, MT, RO, SI and UK) in which expenditure as a share of GDP declined by more than 1 p.p. over the period. All of these, apart from Slovenia and the UK, are in the group of “low spenders” on social protection. *Accordingly, there was some tendency towards divergence of social protection expenditure relative to GDP over this period, in the sense that expenditure relative to GDP to decline in the low spending and to increase in a number of the high spending ones.*

It is noteworthy that the countries in which social protection expenditure declined in real terms between 2010 and 2016 were all hit relatively hard by the crisis: Greece, Spain and Portugal, in which GDP either fell or increased relatively little over this period and where consequently the need for social support tended to increase. In most cases, this was due to cost-containment policies, especially affecting old-age pensions and healthcare (see Section 3 below), that were implemented following the crisis and the resulting sharp expansion of social spending on benefits such as unemployment and social assistance ones. In Greece, in particular, as noted above, GDP fell dramatically over the period 2010-2016, while total expenditure on social protection was reduced from €58.6 billion to €46.3 billion in current price terms, corresponding to a reduction in real terms of 17%, as a result of the fiscal consolidation measures implemented under three bail-out agreements.

In Ireland, after the increase in expenditure during the first years of the crisis, described above (Box 4), there was a sharp fall over the period 2010-2016: of 9 p.p. in relation to GDP²⁰, corresponding to a reduction of almost 1% a year in real terms. The austerity budgets in 2009 and 2010 cut core benefit rates for people of working age and reduced child benefit as well as other benefits. Entitlement conditions were also tightened, so lowering recipient numbers. Following this, successive policy changes have reduced the social insurance character of the Irish system and expanded the extent of means-testing. In particular areas this, in turn, has reinforced the high reliance on general taxation to fund social protection spending.

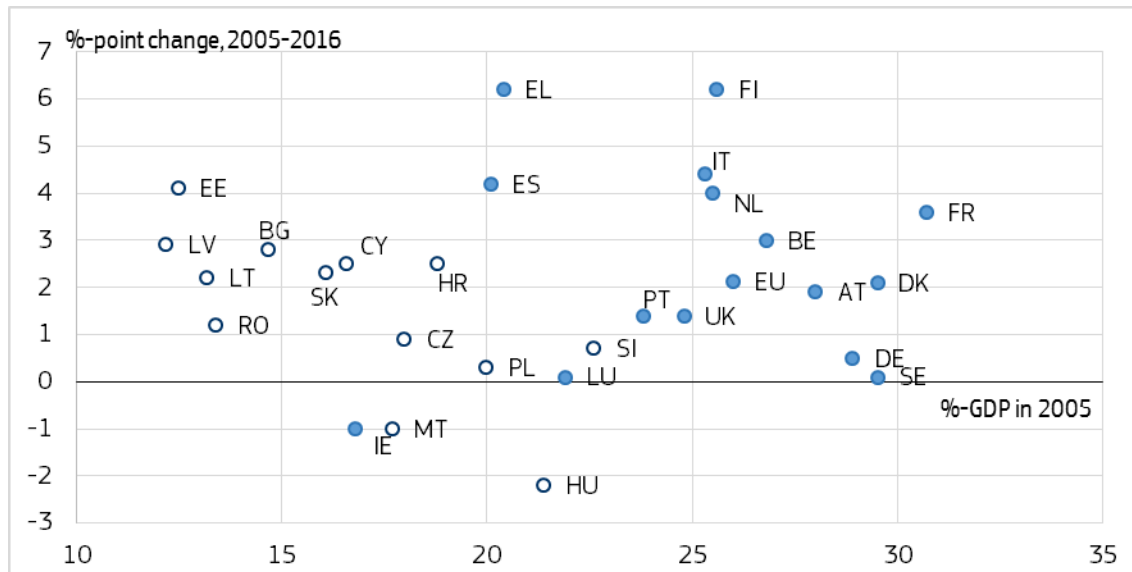
The general picture, therefore, is one of expenditure restraint over the period since 2010, and there are only a few countries in which spending has outpaced the growth in GDP.

Lack of overall convergence in social protection expenditure relative to GDP across the EU over the period 2005-2016

Although, as indicated above, in the years before the global recession there was some tendency, for expenditure on social protection as a share of GDP to increase in the low spending countries by more than elsewhere, this has not really been the case since 2010. As noted above, the two countries in which expenditure was highest, France and Finland, in these terms have experienced relatively large increases over these years. Accordingly, over the period 2005-2016, there is no overall apparent tendency for social protection spending to increase by more as a share of GDP the lower the initial level (Figure 5).

²⁰ The reduction in expenditure relative to GDP is greatly affected by the substantial increase in GDP over this period resulting from the relocation of intellectual property to Ireland by a number of multinationals, as described above.

Figure 5 Social protection expenditure as % of GDP in 2005 and percentage point change in this, 2005-2016



Note: The markers with no fill denote the Central and Eastern European countries. The change for HR relates to the period 2008-2016
 Source: Eurostat, ESSPROS Database

However, if the Central and Eastern European Member States are examined separately, there is a clear tendency for social protection spending as a share of GDP to have increased by more, over this period, in countries where the share was lowest initially (the markers with no fill in Figure 5). This is particularly true for the Baltic countries and Bulgaria, which had among the lowest levels of social protection expenditure relative to GDP in 2005.

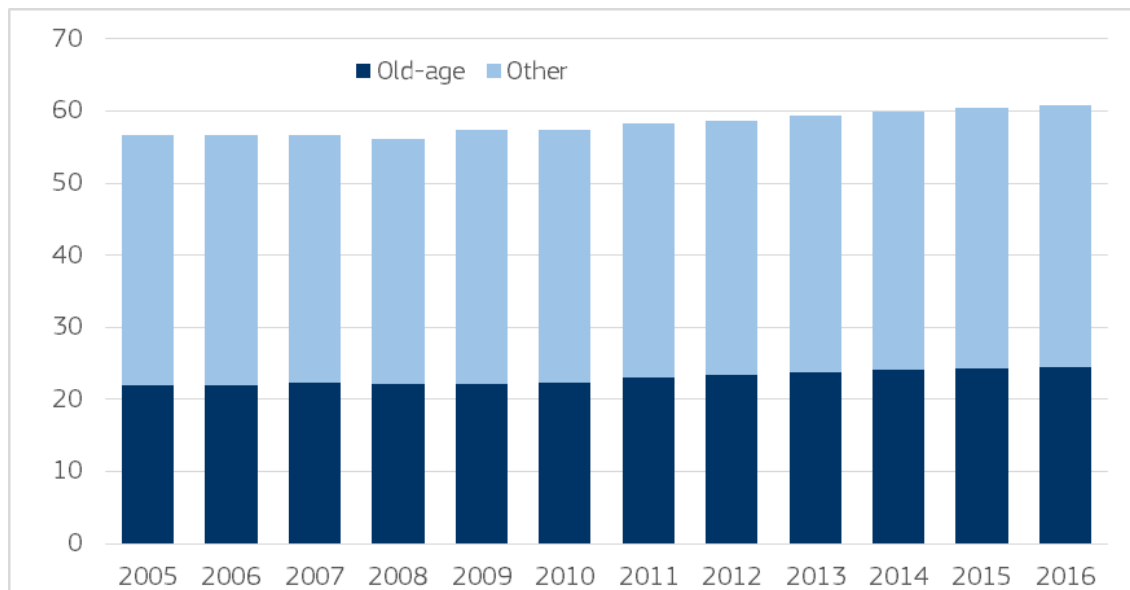
1.1.3 Social protection expenditure as a share of total public expenditure

As indicated above, there are relatively few countries in which expenditure on social protection has increased relative to GDP over the period since 2010. Since this is a period marked for much of it by fiscal consolidation policies, when government spending has been severely restrained in many countries, this perhaps is only to be expected. The question arises, however, of whether and to what extent social protection expenditure was treated differently from other parts of public spending as regards the fiscal consolidation measures that were implemented.

Overall in the EU, spending on social protection increased relative to total government expenditure over the period 2005-2016, from just under 57% of the total to just under 61% (Figure 6). The increase occurred largely after 2010 rather than before. Indeed, in the years up to the crisis, expenditure on social protection remained much the same as a share of total spending, declined slightly in 2008, before increasing by just over 1 p.p. in 2009. It remained constant in 2010 and then rose slowly each year up to 2016.

Much of the increase in the share of total government spending going to social protection over the period was a result of an expansion in expenditure on old-age benefits, primarily retirement pensions. The share of such expenditure went up by 2.5 p.p. between 2005 and 2016, accounting for almost two-thirds of the overall increase in social protection spending.

Figure 6 Expenditure on social protection, divided between old-age benefits and other, as a share of total General Government expenditure, EU, 2005-2016 (%)



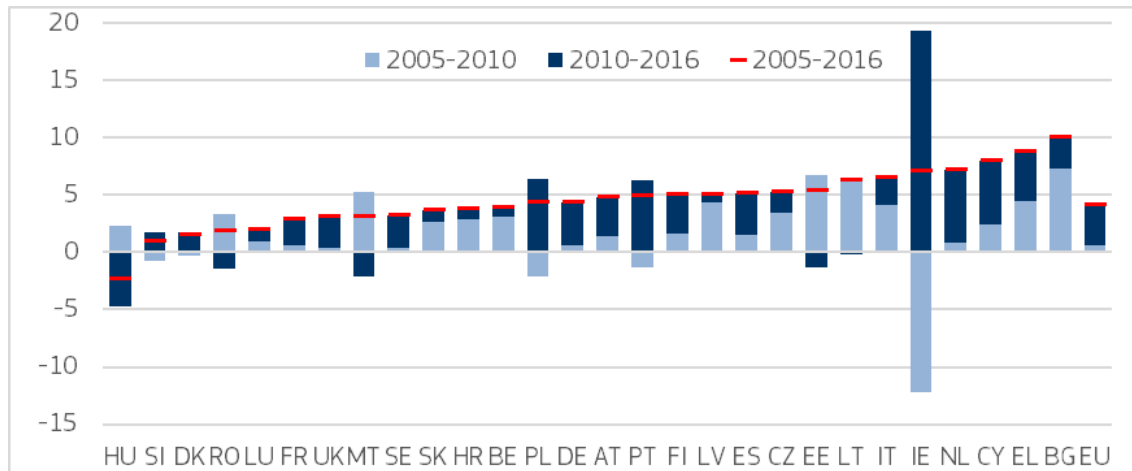
Source: Eurostat, ESSPROS Database and National accounts

The implication is that other elements of government expenditure were restrained, or cut back, by more than social protection over the period after 2010 (i.e. they declined from just under 43% of the total to just over 39%), when fiscal consolidation measures were implemented in nearly all Member States. The result of these measures is that total government expenditure was reduced from 50% of GDP in 2010 to just over 46% in 2016 and spending other than on social protection declined from just over 21% of GDP to 18%.

Though there are differences across Member States, in nearly all of them, the share of total public spending in social protection increased over the period (Figure 7). The only exceptions are Hungary, Malta, Romania, Estonia²¹, in which, accordingly, spending on social protection was restrained by more than other elements of public expenditure, and Lithuania, where it was restrained to much the same extent. In all of these five countries public expenditure declined over this period, which was also the case in all other Member States, apart from Finland. However, in all five of the countries, except for Hungary, social protection spending as a share of total public expenditure increased by more over the five years before 2010 than it fell in the subsequent six years. Moreover, countries in which the share of social protection expenditure fell over the 2005-2010 period (Ireland, Poland, Portugal and Slovenia), experienced a larger increase over the 2010-2016 period than the preceding fall. Accordingly, with the sole exception of Hungary, the share of public spending on social expenditure was larger in 2016 than it had been in 2005.

²¹ Countries are ordered here and elsewhere in terms of the scale of the change.

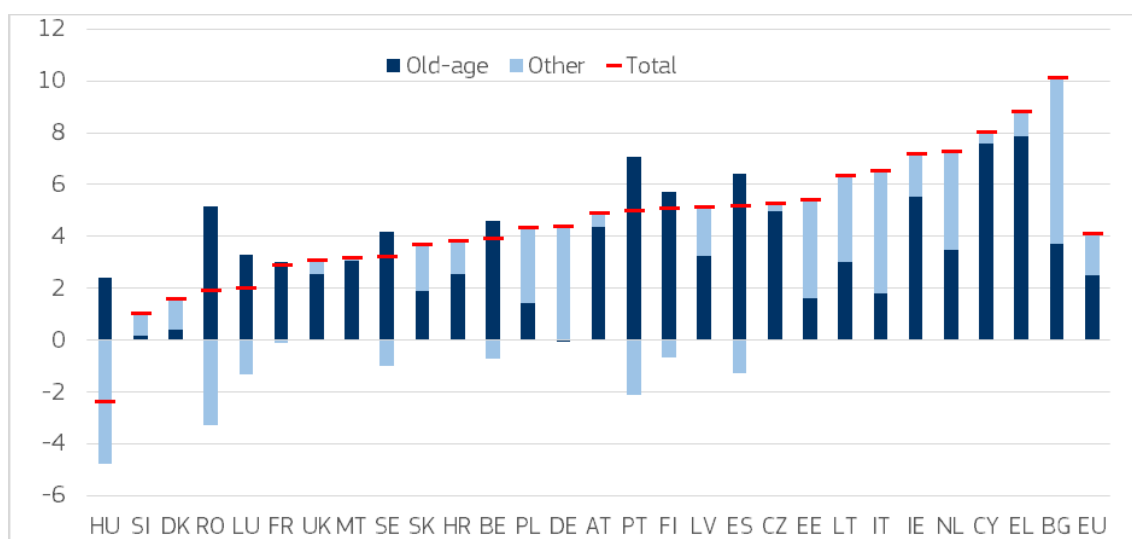
Figure 7 Change in expenditure on social protection as a share of total General Government expenditure, 2005-2016 (percentage point change)



Note: Countries are ordered according to the increase in the share of expenditure, 2005-2016.
 Source: Eurostat, ESSPROS Database and Government finance statistics.

The rising share of expenditure on old-age benefits was the main reason was the increase in the overall share of social protection spending in total government expenditure over the period in most Member States. The old-age benefit share increased between 2005 and 2016 in all of the countries, except Germany where it remained unchanged, though the increase was marginal in both Denmark and Slovenia (Figure 8). Apart from these three countries, the share of old-age benefits in total government spending increased by more than other elements of social protection in all Member States except Bulgaria, Estonia, Italy and Poland. In around half the Member States (15 of the 28), the increase in expenditure on old-age benefits accounted for all or nearly all of the overall expansion of the share of social protection in total government spending and in 8 of these, the old-age benefit share went up while the share of expenditure on other elements of social protection went down.

Figure 8 Change in expenditure on old-age benefits and other elements of social protection as a share of total government expenditure, 2005-2016 (percentage point change)



Note: Countries are ordered according to the increase in the share of expenditure, 2005-2016.
 Source: Eurostat, ESSPROS Database and Government finance statistics.

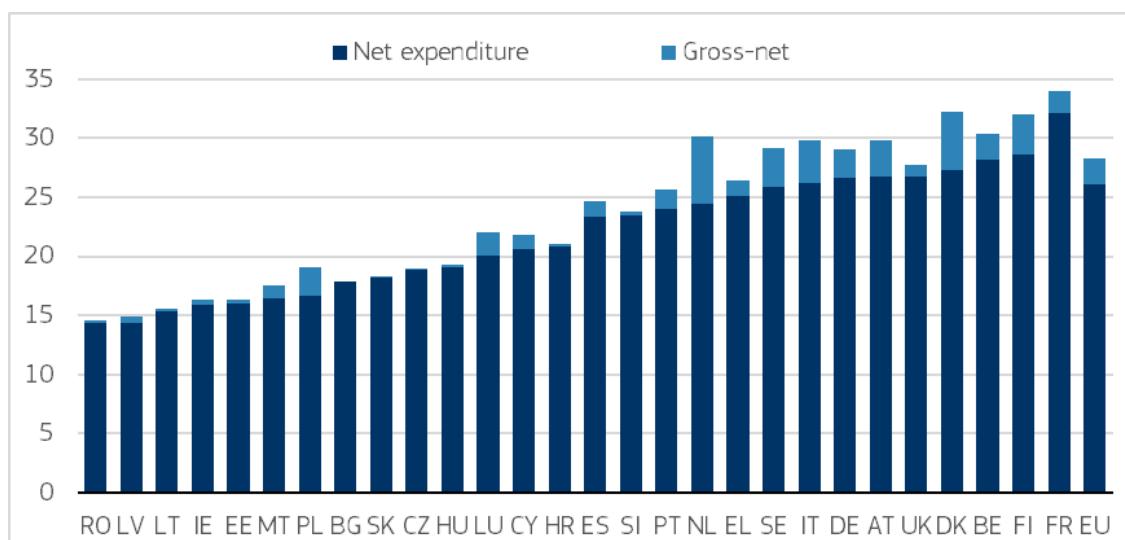
1.1.4 Gross versus net expenditure

While the above section has focused on developments in expenditure on social protection measured in gross terms, which is the conventional means of measurement, there is a strong case for examining developments in net expenditure at the same time. This is measured after deducting the revenue which comes directly from benefit recipients through the social contributions and taxes they pay and which, in a sense, constitutes an “automatic” form of financing²². Although in many countries this figure is relatively small and makes little difference to the amount which needs to be financed “externally”, in some it is significant and changes the latter perceptibly.

In countries where the difference between gross and net expenditure is significant, this to some extent reflects a policy of using the tax system as a means of targeting benefits on those most in need of income support. This is done by taxing some of the benefit payments made to them, the amount concerned tending to increase with income where tax systems are progressive. Such a policy essentially represents an alternative to using means-testing as a way of targeting benefits (see below in the present section for a discussion of the relationship between means-testing and the extent to which taxes and social contributions are levied on benefit recipients).

Overall, the difference between gross and net expenditure in the EU amounts to just over 2% of GDP, so that on average net expenditure was some 26% of GDP in 2015 (the latest year for which estimates of net expenditure are available from Eurostat), as opposed to gross expenditure, at just over 28% (Figure 9).

Figure 9 Gross and net expenditure on social protection, 2015 (% of GDP)



Source: Eurostat, ESSPROS Database

The difference between gross and net expenditure is largest in Denmark and the Netherlands (at 5-6% of GDP in 2015) – where most benefits are taxed but benefit recipients are exempt from paying social contributions – and only slightly smaller in Italy, Finland, Sweden and Austria (over 3% of GDP in each case). By contrast, there is little or no difference between gross and net

²² As the Eurostat User Guidelines state: ‘gross data on social benefits are less adequate if, for instance, one wants to know the overall implications of social protection on the government budgetsince countries differ markedly in the measure to which benefits are subject to taxes and social contributions’ (Eurostat, 2016).

expenditure in many countries, particularly in the Central and Eastern European Member States (Poland is the main exception), and most especially in Bulgaria, Czechia and Slovakia, where benefit recipients pay very little or nothing in the way of taxes or social contributions.

The variation in the difference between the gross and net figures between countries, and the extent to which taxes and social contributions are levied on benefit recipients, changes the relative level of expenditure which needs to be financed and the ranking of countries in this respect. Italy the Netherlands and Sweden are both move from the “high spender” group to the “medium” one while the UK’s ranking increases shifting it from the “medium spender” group to the “high” one. In general, when social protection expenditure is measured in net terms, the “high spenders”, except for France, are much closer to the EU average than when it is measured in gross terms. When countries are grouped according to the above ranking, the “medium spender” group is expanded, some low spending countries moving up because benefit recipients pay little in taxes and social contributions. (Table 3).

Table 3 Grouping of countries according to gross and net social protection expenditure, as % of GDP, 2015

High spenders (more than 28% of GDP), gross	Medium spenders (28-21%), gross	Low spenders (less than 21%), gross
AT, BE, DE, DK, FI, FR, IT, NL, SE	EL, ES, HR, LU, PT, SI, UK	BG, CY, CZ, HU, EE, IE, LT, LV, MT, PL, RO, SK
High spenders (26% of GDP or more), net	Medium spenders (20-26%), net	Low spenders (less than 20%), net
AT, BE, DE, DK, FI, FR, UK	EL, ES, HR, IT, LU, NL, PT, SE, SI	BG, CY, CZ, HU, EE, IE, LT, LV, MT, PL, RO, SK

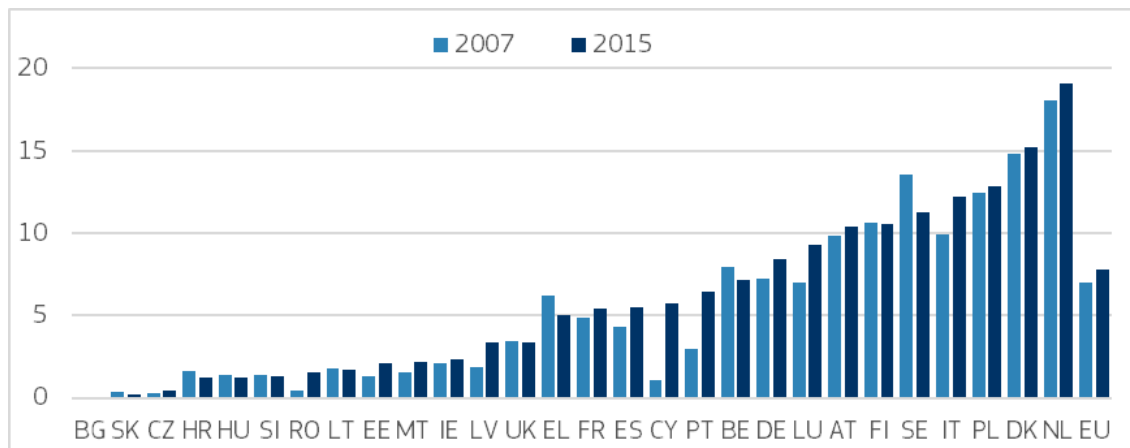
Note: Countries in bold are those that change groups when expenditure is measured in net rather than gross terms.

Source: Eurostat, ESSPROS Database

For Luxembourg, expenditure, if measured in net terms, amounted to 29.5% of GNI (down from 32% of GNI if measured in gross terms) instead of 20% when related to GDP. For Ireland, since benefit recipients pay relatively little in taxes and social contributions, measuring expenditure in net rather than gross terms makes comparatively little difference to the figure.

The amount of revenue collected from benefit recipients in tax and social contributions has tended to increase over recent years, which implies that compared to the small overall reduction in the EU in (gross) social protection expenditure in relation to GDP, noted above, the decrease was slightly larger if measured in net terms. The amount of revenue involved averaged close to 8% of gross expenditure on social expenditure in the EU in 2015, up from 7% in 2007 (Figure 10). The increase was fairly widespread across countries, with only four (Croatia, Belgium, Greece and Sweden) showing a decline of more than 0.1 percentage point, the decline being particularly large in Sweden (over 2 p.p. as a share of gross expenditure). In Italy, Luxembourg, Portugal and Cyprus, the increase was over 2 p.p. (close to 4 p.p. in Portugal and almost 5 p.p. in Cyprus) and there were another seven countries where it was more than 0.5 p.p.

Figure 10 Effective tax and social contribution rates on social protection expenditure, 2007 and 2015 (% of gross expenditure)



Note: Countries ordered in terms of effective tax and contribution rate in 2015. Figures for 2007 for FR and PL relate to 2010; figure for 2015 for PL relates to 2014.

Source: Eurostat, ESSPROS Database

In Italy, gross social protection expenditure expanded significantly over the period 2005-16. It rose by over 4% of GDP, the third largest increase in the EU after Greece and Finland, and from below the EU average to above. Part of the increase, however, was financed by benefit recipients themselves, with the amount raised from these rising from 10% of gross expenditure to over 12%. As a consequence, the increase in social protection expenditure in net terms was 1 p.p. less than in gross terms (i.e. just over 3 p.p. instead of over 4 p.p.)²³, which brings the level of expenditure to much the same as the EU average, rather than higher.

1.1.5 Tax expenditures and mandatory private social expenditure

Unlike the financing raised from benefit recipients themselves, tax expenditure – i.e., tax concessions of various kinds, such as allowances or deductions, which reduce the amount of tax payable – are not included in the ESSPROS data. Nevertheless, though their distributional consequences may be very different, they are similar to social benefits, in that they transfer income to particular groups and have financial implications for government budgets. They should therefore also be taken into account when assessing the need for funding²⁴. Such expenditure seems at present, from the estimates available, to be of only minor importance in most countries. These estimates put its overall value in 2015 (the latest year for which estimates are available for most of the EU Member States on a comparable basis) at 1% of GDP at most (in France and just under in Germany, Czechia and Portugal) and at over 0.5% of GDP in only a few countries (Italy, Hungary

²³ This assumes that the gap between gross and net expenditure was the same in 2005 as in 2008, the earliest year for which data for net expenditure are available for Italy from ESSPROS. The increase between 2008 and 2015 was just over 3 p.p. in gross terms and just over 2 p.p. in net terms.

²⁴ Although they may have similar implications for financing, their distributional implications may be very different, in that to enjoy the benefits of tax concessions, or allowances, people need to be paying taxes, which is often not the case as regards income tax for those on low incomes. Equally, tax allowances tend to be worth more the higher the rate of tax that a person is paying, which implies that higher income earners gain more than lower income ones. Accordingly, as compared with flat rate cash benefits, tax allowances tend to have a more regressive effect on the distribution of income.

and the Netherlands)²⁵. Although the effective worth of these tax benefits may have changed over the period, they seem to be too small in all countries to affect the developments in overall expenditure described above.

In Germany tax allowances are mostly linked to or private insurance, particularly for private pensions, which have been increased at the same time as social insurance benefits have been reduced. In Czechia, tax relief is an important supplement to child benefits. There have been several forms of tax relief introduced in recent years. In the case of family policy, the most significant development since 2008 is the increase in child tax credit. Whereas the tax credit reduces the tax liabilities equally for everyone with children, entitlement to the tax bonus is limited to families whose annual income from economic activity is six times the minimum wage or more. In 2014, a new tax credit was introduced, related to the cost of placing a child in an early education and care facility (the “kindergarten” tax credit).

Unlike tax expenditures, mandatory private social protection expenditures should be included in the ESSPROS data to the extent that they are collective rather than individual in nature. These are benefits paid directly by the private sector, often by employers, instead of by social insurance funds or government, such as sickness payments which employers are obliged to make when an employee falls ill. Mandatory social protection expenditures which are deemed to be individual rather than collective in nature and which are not included in ESSPROS are, from the perspective of employers, similar to taxes or social contributions in that they are obligations which have to be met. Like tax expenditures, however, they tend to play only a minor role in Member State welfare systems. Nevertheless, such expenditures are estimated at 2.6% of GDP in 2015 in Denmark, 2.2% of GDP in Germany, and as much as 6.2% of GDP in the Netherlands. These three countries apart, estimates put the amount involved at around 1% of GDP or slightly less in Italy, the UK, Luxembourg, Austria and Greece, but at under 0.5% of GDP everywhere else ²⁶.

In the Netherlands, the mandatory private social expenditure concerned consists predominantly of health and sickness insurance schemes, in Denmark, to a large extent of accidents at work and occupational disease schemes, which exist in both cases in place of public insurance schemes.

In Germany, the two main sources of mandatory private expenditure are sickness and healthcare schemes, which account for almost 9% of total expenditure on healthcare and sickness, which are not included in ESSPROS, and pension schemes, which are included. In the case of pensions, there has been a paradigm shift to reduce the financial contribution of employers and government, and to introduce a new public-private mix, with individuals becoming more responsible for funding. In Italy, it is estimated that in 2016 around EUR 55 billion, an amount equivalent to around 12% of social protection expenditure, was spent by the Government on “fiscal” welfare (tax incentives for individuals and firms to help them provide welfare).

²⁵ Estimates from OECD, social protection data. The estimates cover only OECD countries in Europe and therefore exclude eight EU Member States in Central and Eastern Europe. In the case of Denmark, for which the OECD estimates give a figure of zero in 2013, according to national data, tax expenditure was made up, to a large extent (over 60% of the total), of tax exemptions for families with children and old age pensioners or those about to retire, and amounted to around 1.5% of GDP in 2017.

²⁶ Estimates from OECD, *op. cit.* Again, only OECD European countries are covered.

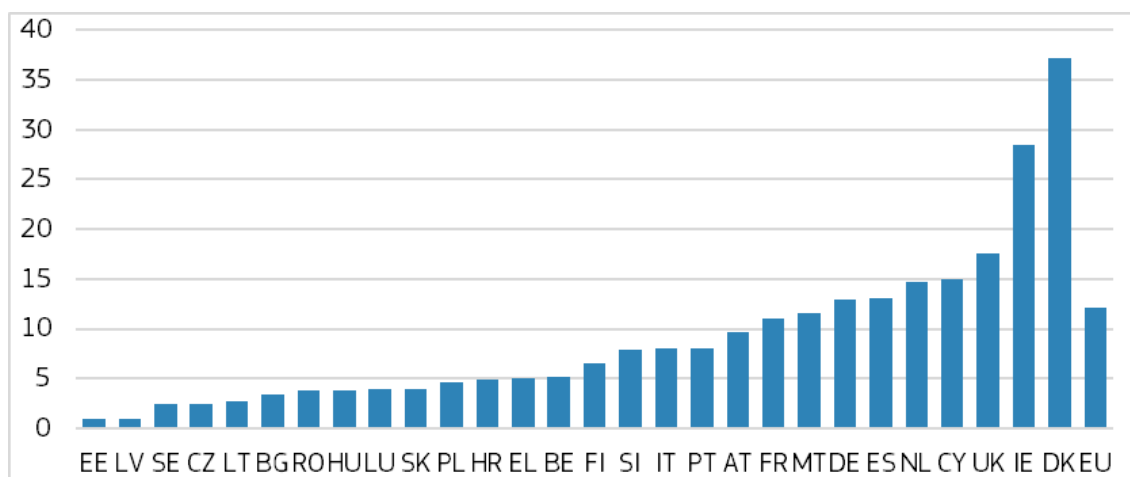
The relatively low importance of mandatory private social protection expenditure in the statistics, however, conceals, to some extent, the growing importance of spending on private insurance schemes in many countries which are individual rather than collective-based (such as Croatia, Ireland, Italy, Portugal, Sweden and the UK, as well as Denmark and Germany) and which, accordingly, are not captured in the ESSPROS data. These provide protection against risks in a similar way to social protection schemes but without the collective element and tend to be implemented in specific economic sectors and by large enterprises. In Denmark, for example, the number of people covered by private health insurance continues to grow. More than half of families have a healthcare policy for their children and about one fifth of the adult population has a private policy to cover the costs of medical treatment, two thirds being taken out by individuals themselves and one third by employers for their employees. Though not part of social protection systems as such, they have implications for them, including in terms of equity of access to services (see Section 4 below).

1.1.6 Expenditure on means-tested benefits

Although not invariably the case, there is a widespread tendency for means-tested benefits to be financed from taxation rather than social contributions. Accordingly, a change in the relative importance of means-testing has consequences for the division of financing between social contributions and taxation, pushing up reliance on the latter if it covers more of expenditure on social protection.

In 2016, the extent to which social benefits are subject to means-testing varies considerably across the EU. On average 12% of expenditure on social protection in the EU was means-tested, but this varies from 37% in Denmark and 29% in Ireland to only 1% in Estonia and Latvia (Figure 11).

Figure 11 Social protection expenditure subject to means-testing, 2016 (% of total social protection expenditure)



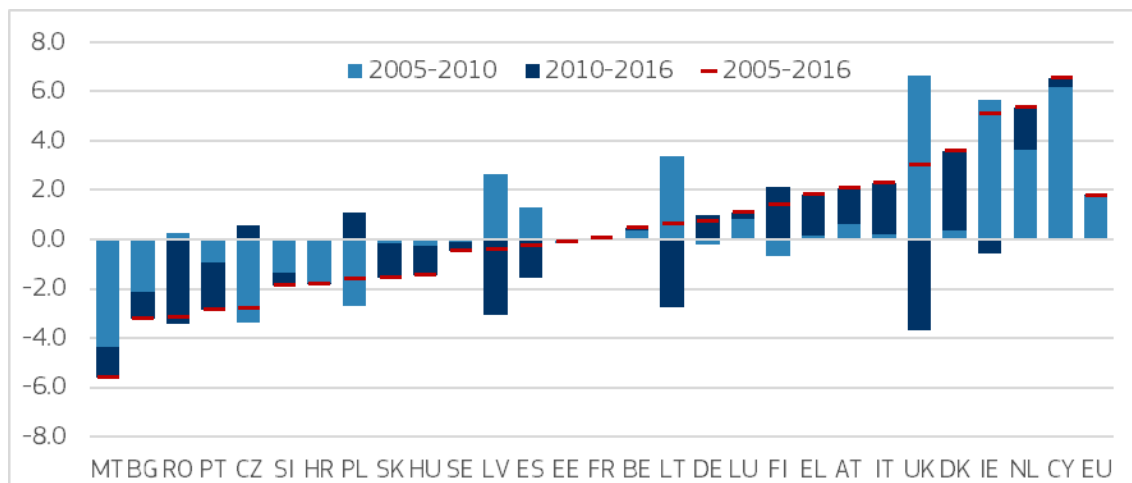
Source: Eurostat, ESSPROS Database

Imposing a progressive structure of taxation on benefits is an alternative way of targeting support on those most in need, in the sense that those with highest income levels have more of their benefit taxed away, while those with low income pay little or nothing in taxes. However, there is only a limited relationship evident between the taxes (and social contributions) paid by benefit recipients as a share of social protection expenditure and the share of spending on means-tested benefits in the latter. Means-testing, therefore, is most important in Denmark where benefit recipients are also

taxed a relatively large amount on their benefits. It is also relatively important in the Netherlands, where the same is true. On the other hand, means-testing covers a relatively large share of expenditure in both Ireland and the UK as well, where the taxes paid on benefits are relatively small, while in Sweden, means-testing covers a small share and the taxes paid on benefits are relatively large. In practice, therefore, it seems that means-testing is used in a number of countries in addition to taxation in order to target benefits on those in need.

The changes in means-tested benefits which occurred over the period 2005-2106 show no common pattern, in the sense that their share of total expenditure increased in some countries, declined in others and remained much the same, in a third group (Figure 12). Although on average, the proportion of means-tested social protection expenditure increased between 2005 and 2010 (by around 2 p.p.), there were as many EU Member States where the share declined as where it increased. In the following six years up to 2016, the proportion of spending subject to means-testing remained unchanged on average and again declined in half the Member States and increased in the other half. There is no general tendency, therefore, for means-testing to become more important over the period.

Figure 12 Expenditure on means-tested benefits as % of social protection spending, 2005-2016 (percentage point change)



Note: Countries are ordered in terms of the change in means-tested benefits as a share of total expenditure over the period 2005-2016. Change for HR for 2005-2010 relates to 2008-2010.

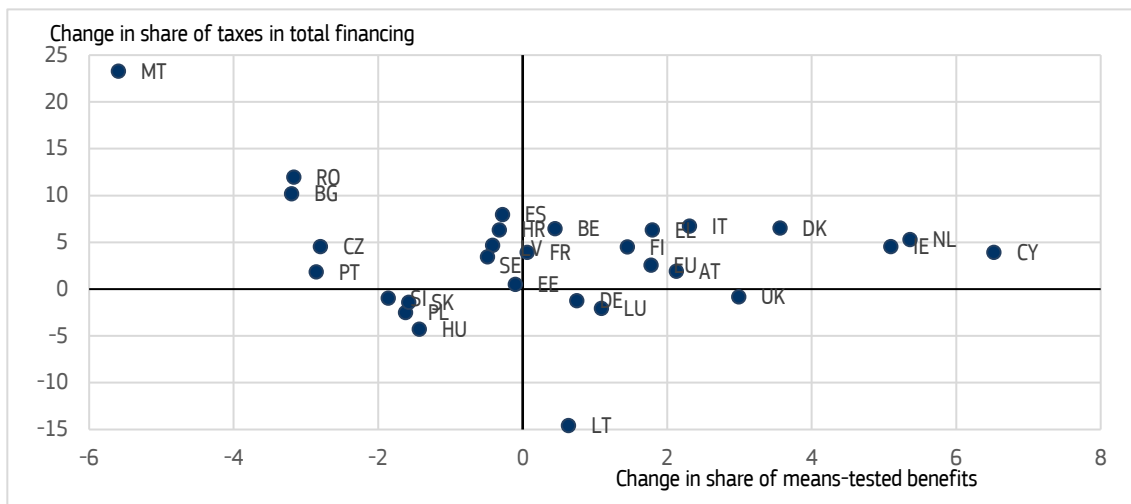
Source: Eurostat, ESSPROS Database

Moreover, there are very few countries in which means-testing increased in importance in both the period before 2010 and the period after. The Netherlands and Cyprus stand out as countries where this occurred, the share of social protection spending subject to means-testing rising by over five percentage points between 2005 and 2016, though in Cyprus, the increase occurred predominantly in the first half of the period. This was a result of both a need for income support during the economic downturns and the introduction of a means-tested top-up income support scheme for low-income pensioners (see section 3.2.1) . In both countries, it should be noted the taxes paid by benefit recipients on the amounts they received also increased over the period.

To anticipate the analysis in Section 2 on the financing mix of social protection below, although in both the Netherlands and Cyprus, taxation increased as a share of financing of social protection over the period, the increase was smaller than in many other countries. Moreover, in a number of

countries, the share of expenditure on means-tested benefits declined while the share of financing raised from taxes increased, most notably in Romania, Bulgaria and Malta (Figure 13). Indeed, there is little sign of any relationship between the change in the share of expenditure on means-tested benefits and the change in the proportion of financing derived from taxation. This does not mean that means-testing is not a factor pushing up the taxation share of social protection financing, but rather that other factors tended to outweigh any effect on the composition of financing that means-testing might have had.

Figure 13 Changes in expenditure on means-tested benefits as a % of total social protection spending and changes in government contribution as a % of total financing of social protection, 2005-2016 (percentage point change)



Note: Changes in HR relate to 2008-2016

Source: Eurostat, ESSPROS Database

Ireland is among the EU Member States where the expenditure on means-testing grew strongly during the period 2005-2016. This is partly due to the growth in expenditure on the means-tested Disability Allowance, which increased by an annual average rate of over 4% between 2005 and 2016. In 2005, employees with long-term illnesses could receive sickness benefit indefinitely, but by 2016, the indefinite duration entitlement had been abolished and a maximum duration of two years imposed. Moreover, some of the inflow to the means-tested Disability Allowance was from “insured” workers excluded from insurance benefits because of the tightened eligibility rules. Based on an OECD analysis, the Irish ESPN Country report highlights the fact that this growth also derives from fundamental changes in patterns of morbidity and disability, in particular, rising life expectancy among the disabled and a higher incidence of longer-term illnesses among the working age population, as well as a lack of appropriate rehabilitation programmes.

1.2 Social expenditure in EU Candidate Countries and Potential Candidates

1.1.7 Overall social protection expenditure

In EU candidate countries and potential candidates²⁷, social protection expenditure relative to GDP is much lower than the EU average (28% of GDP), and the figures are similar to those in the “low

²⁷ It should be noted that ESSPROS data are available only for Serbia and Turkey. For the rest of the countries, the ESPN Country teams provided national data, and there may be differences in the calculation of social protection expenditure.

spenders” group of Central and Eastern European Member States (see Table 1, Section 1). Apart from Serbia, where the total expenditure on social protection was 21.5% in 2016, values were below 20% in the rest of these countries, ranging from 19% in Montenegro in 2016 to the lowest level (of the 35 ESPN countries) of 8.9% in Kosovo* (Table 4).

As regards the dynamics of gross expenditure relative to GDP, almost all these countries, with the exception of Serbia, experienced a slight increase of 2 p.p. on average in the period 2005-2016 (see Table 4²⁸), driven, in particular, by increasing expenditure on old-age benefits. Bosnia and Herzegovina and Kosovo* are at the top the list, with an overall increase of around 3 p.p. In Kosovo*, this increase is due to changes in the pension system (in 2008) and to the growth of benefits provided to “categories of war” and “former political prisoner” recipients. Social protection expenditure in real terms grew faster in all the countries, and more than tripled in Albania. As in the EU Member States, social protection expenditure relative to GDP increased only slightly during the crisis period (2008-2010) due to rising unemployment and falling GDP values. It should be noted, however, that in most of these countries, the economic slowdown only hit a few years after the 2008 EU crisis – i.e. 2011-2013.

As in most of the EU Member States, and in particular the Central and Eastern European Countries, there is no significant difference between gross and net expenditure, as these countries generally collect no tax or social contributions from benefit recipients.

Table 4 Social protection expenditure in EU candidate countries and potential candidates as a share of GDP (2005 and 2016)

Country	Gross Expenditure as a share of GDP	
	2005	2016
Albania	7.6%	9.4%
Bosnia and Herzegovina	13%	16%
Montenegro	17.8%	19%
North Macedonia	13.2%	14.9%
Serbia	22.9%	21.5%
Turkey	10.6%	12.0%
Kosovo*	5.9%	8.9%

Source: National administrative data for AL, BA, ME, MK and XK; ESSPROS data for RS and TR*

²⁸ This table does not allow for full comparability between countries, as ESSPROS data are available only for Serbia and Turkey.

2 SOCIAL PROTECTION FINANCING AND CHANGES IN THE SOURCES OF THIS OVER THE PERIOD 2005-2016

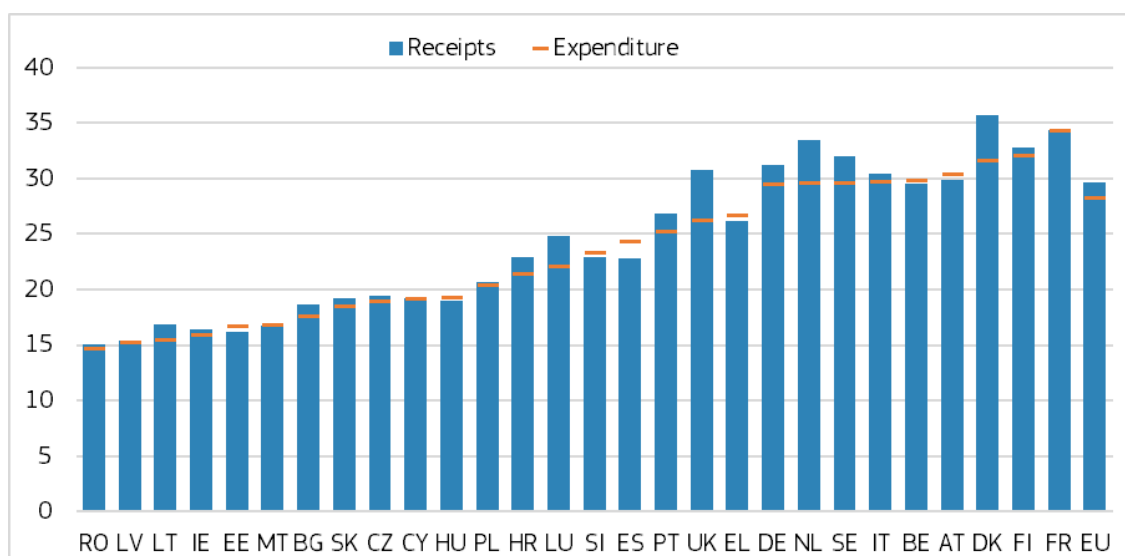
This section, first, reviews the level of financing of social protection and the changes in relation to expenditure over the period 2005-2016 in EU Member States. Secondly, it examines the division between the main sources of financing across the EU, in particular, the amount raised from social contributions as opposed to taxation and the amount from employers' social contributions relative to those from employees and others, and the way that the financing mix changed over the period. Thirdly, it considers the financing of social protection in candidate and potential candidate countries.

2.1 The overall financing of social protection and changes over the period 2005-2016

The changes which have occurred since 2005 in the revenue collected from social contributions, taxes and other sources to finance expenditure on social protection broadly mirror the changes in spending described above. However, they are not entirely the same, since countries vary in the extent to which there are surpluses or deficits on the social protection account in particular years.

In 2016, receipts used to finance social protection systems in the EU averaged almost 30% of GDP, while expenditure amounted to just over 28%, as noted above. Receipts were, therefore, 5% larger than expenditure, corresponding to 2% of GDP. (Figure 14) In most countries too, the amount of revenue raised exceeded expenditure, most especially in Luxembourg, Denmark and the Netherlands, where the amount involved was around 13% of expenditure, and above all in the UK, where it was around 17%. In seven Member States, on the other hand – Belgium, Hungary, Austria, Greece, Slovenia, Estonia²⁹ and, especially, Spain, expenditure exceeded receipts, implying that spending was covered in part by borrowing rather than by social contributions or by taxation.

Figure 14 Expenditure on social protection and receipts, 2016 (% of GDP)



Source: Eurostat, ESSPROS Database

²⁹ In this case listed in reverse order of the scale of the difference.

The difference between receipts and expenditure has varied over time as well as between countries. Since, however, the difference tends to fluctuate from year to year in many countries, there is a need to examine changes in the average difference over periods of time, rather than the difference between single pairs of years. In the recession years, there was some tendency for expenditure to increase by more than receipts, if we compare the average for the two years 2009 and 2010 with the average over the preceding four years. This perhaps reflects a failure of receipts to keep up with expenditure when it is increasing significantly and/or for tax and social contribution rates to lag behind the need for an increase when revenue is falling. However, the increase was by no means universal (in 10 of the 28 Member States, receipts increased by more than expenditure between the two periods).

Over the six years, 2005-2010, as a whole, there were only five countries in which there was on average a deficit in respect of social protection (taking the system as a whole and not just the social insurance part): Estonia, Austria, Romania, Poland and Malta. In the last two, however, the deficit was very small (only 0.1-0.2% of expenditure) (Figure 15). All of these countries, apart from Poland, also had deficits over the four years preceding the crisis. In addition, there were two countries, France and Lithuania, which had deficits over the recession years which were more than offset by surpluses over the previous four years. (In Lithuania, the deficit was substantial, reflecting the large decline in GDP and employment in 2009, though the preceding surplus was also large – 10% of expenditure.) Deficits and surpluses are reported in the ESPN Country reports for specific functions, mostly pensions and healthcare (for more information see Section 2). In Greece, from 2011 to 2016 the country's annual social budgets were systematically in deficit and have returned to surplus only since 2017.

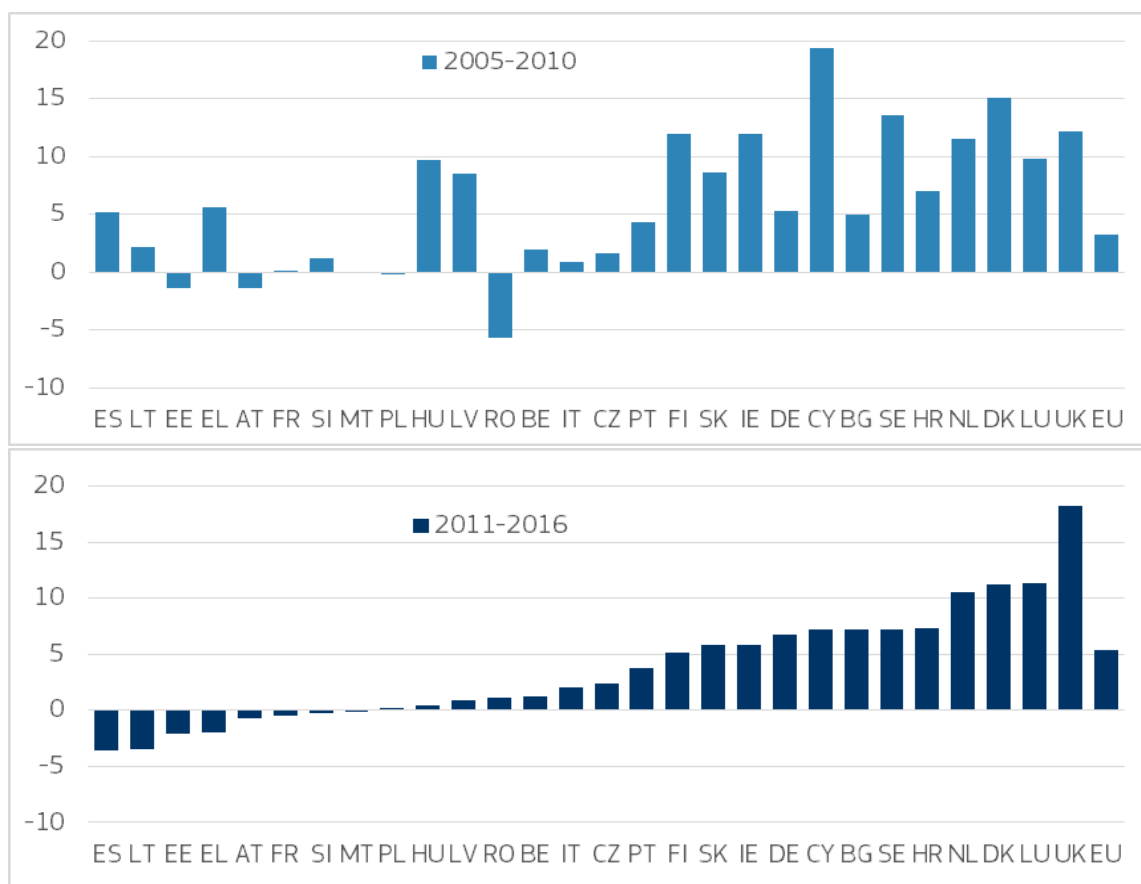
In contrast to the above – mentioned examples, in Latvia, the social protection budget was never in deficit over the 2005-2016 period due to the large reserves accumulated during a long period of economic growth before 2008. The sharp temporary cut in transfers to statutory funded pension accounts in 2009-2012 also contributed to the positive balance in the social insurance budget, along with the temporary removal of ceilings on social contributions in 2009-2013.

Over the following 6 years, 2011-2016, Estonia and Austria still had a deficit, on average, on social protection, though less than 1% of expenditure in the latter, as did Malta, where again it was very small. There were five other countries where expenditure also averaged more than receipts – Spain, Lithuania, Greece, France and Slovenia – though in the last two, the deficit was small (no more 0.5% of expenditure). In all of the other countries, there were surpluses on average on social protection over this period, most especially in the Netherlands, Denmark, Luxembourg and the UK, where, as noted above, the surplus was large in 2016. These four countries, therefore, maintained larger surpluses than other Member States virtually throughout the period.

As over the recession years, there is a slight tendency for receipts to decline more relative to expenditure over the period 2005-2016 the larger the rise in spending relative to GDP. This suggests that it becomes more difficult to put receipts aside to finance future spending when the latter is increasing. The tendency, however, is not particularly strong³⁰.

³⁰ The correlation coefficient is 0.25, indicating that there is some relationship between the two but not a particularly close one.

Figure 15 Social protection receipts less expenditure, 2005-2010 and 2011-2016 (% of expenditure, average per year)



Note: Countries are ordered in terms of the average difference between receipts and expenditure over the years 2011-2016. The figure for Croatia for 2005-2010 covers only the years 2008-2010

Source: Eurostat, ESSRPOS Database

2.2 Current mix and recent changes in the sources of social protection financing

2.2.1 The structure of social protection financing in 2016

Social contributions, on average in the EU, financed over half (55%) of total expenditure on social protection in 2016. The general government contribution, financed predominantly by general taxation, accounted for 40% of funding, while “other sources” (such as interest payments from financial investments) accounted for 5% of the total (Figure 16).

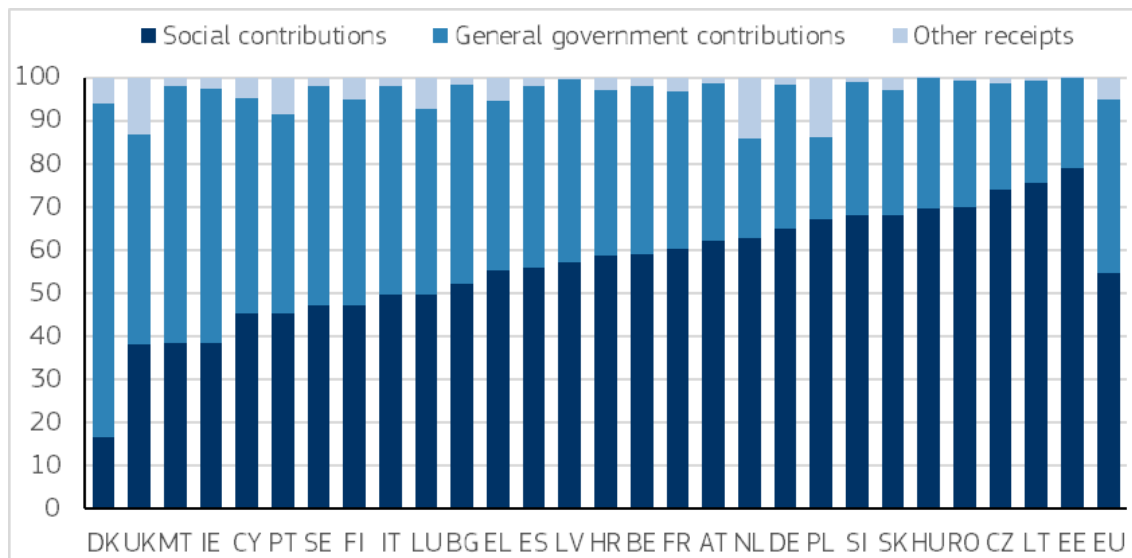
The split between these sources of financing, however, varied markedly between countries, reflecting the kind of social protection scheme in operation — either insurance-based (i.e. a Bismarckian model, more heavily financed by social contributions) or a tax-based (and in some cases more universal) system mainly financed by from general government revenue.

The proportion of financing from social contributions ranged from close to 80% in Estonia, and around 75% in Lithuania and Czechia, to under 40% in the UK, Ireland and Malta and under 20% in Denmark. The latter, however, were the only countries in which social contributions accounted for less than 45% of total financing.

In the vast majority of countries, the general government contribution made up less than half of total financing, exceeding 50% only in Sweden, Ireland, Malta and Denmark (where it accounted for 77% of the total).

In nearly all countries, this contribution came entirely or almost entirely from general taxation. In four countries, however, a non-negligible amount of the general government contribution came from earmarked taxes: some 10% in Luxembourg (4% of total social protection financing), 21% in Poland (also 4% of total financing), 26% in Belgium (10% of total financing) and as much as 66% in France (24% of total financing).

Figure 16 Division of social protection receipts by main source (% GDP), 2016



Note: Countries are ordered in terms of the share of social contributions.

Source, Eurostat, ESSPROS Database

2.2.2 Changes in the sources of social protection financing, 2005-2016

Over the period 2005-2016, the share of financing accounted for by social contributions declined in the EU as a whole, by some 4 percentage points (Figure 17). *This decline however, was almost wholly concentrated in the first part of the period, and since 2010 there has been very little reduction in the share raised from contributions.* The decline occurred largely in the years before the global recession, with the share falling by 3 p.p. in the three years 2005-2008 rather than during the recession itself. The decline in the share accounted for by social contributions was common to virtually all EU Member States, with only Lithuania and Estonia experiencing a small increase.

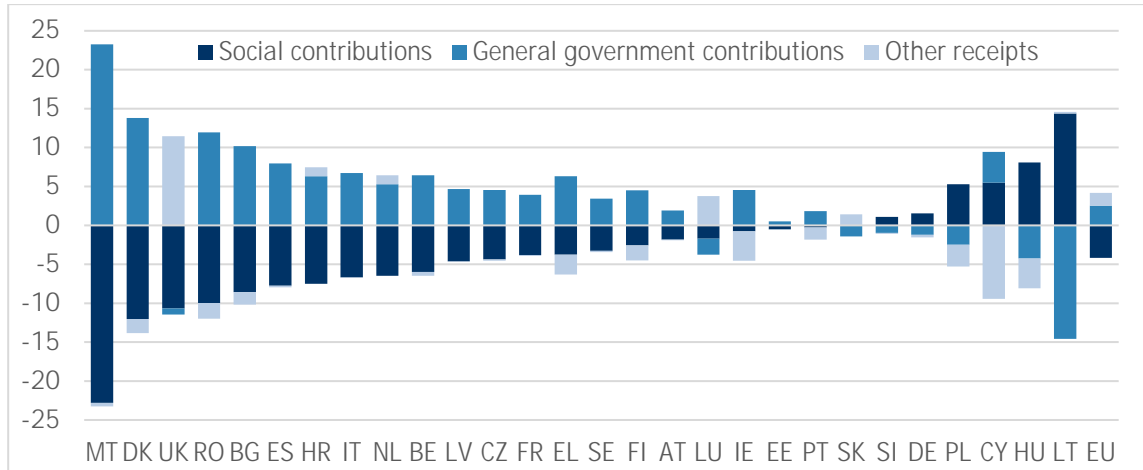
In most Member States, the decline was accompanied by an increase in the share of general government revenue, raised predominantly from general taxation. In five countries, however – Slovakia, Hungary, the UK, Poland and Luxembourg – the fall in the share of financing coming from contributions was matched, either wholly or mostly, by an increase in funding from other receipts, such as interest on financial investments.

The widespread reduction in the share of financing raised from social contributions over the 5 years 2005-2010 is a continuation of a longer-term trend: this share fell by over 2 p.p. on average between 2000 and 2005 and increased in only six Member States: Czechia, Luxembourg, Slovenia and Slovakia, as well as Estonia and Lithuania as in the subsequent period. Moreover, except in

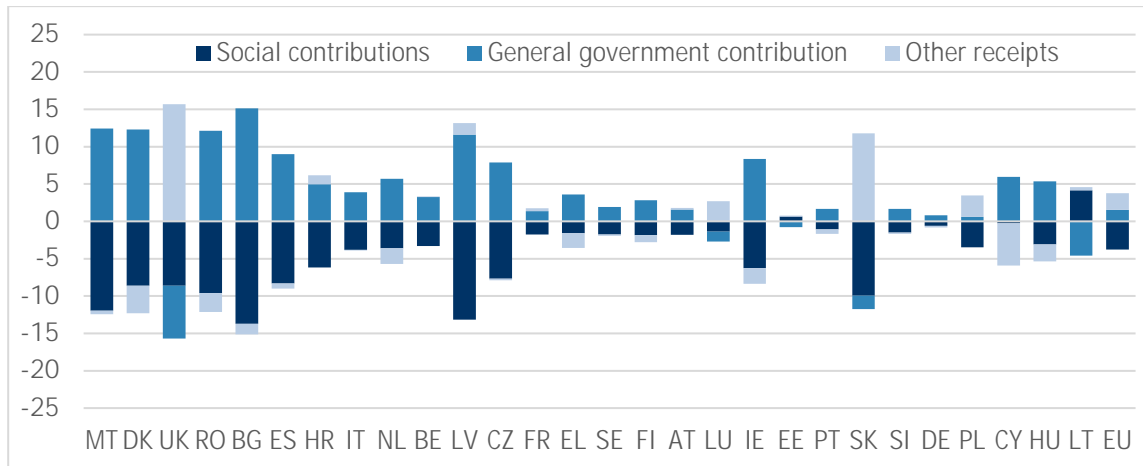
Luxembourg, the reduction in the share over the following five years more than outweighed the increase over the 2000-2005 period.

Figure 17 Change in the share of the main sources of financing for social protection expenditure, 2005-2016 (percentage point change)

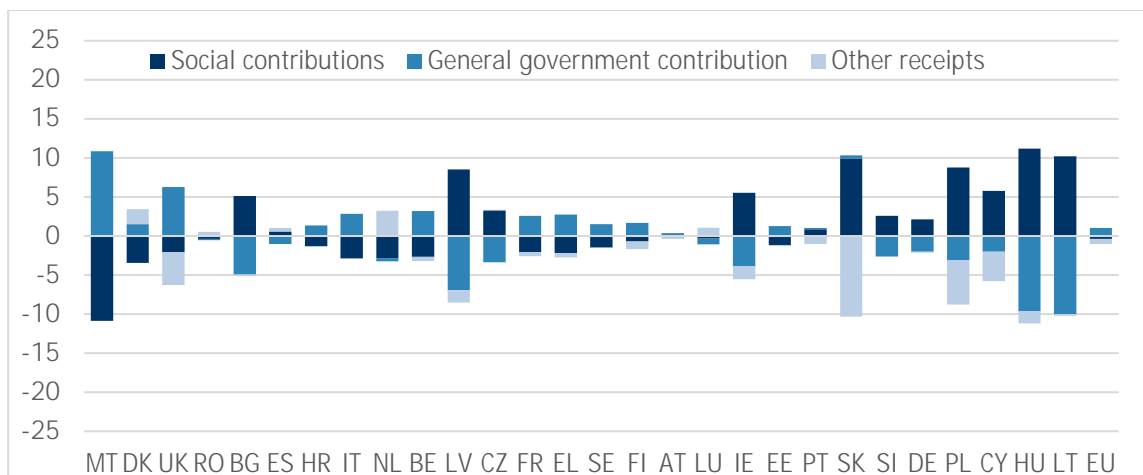
2005-2016



2005-2010



2010-2016



Note: Countries are ordered in terms of the change in the share of contributions in 2005-2016. For HR, the change for 2005-2016 relates to 2008-2016 and for 2005-2010 to 2008-2010.

Source: Eurostat, ESSPROS Database

Over the six years 2010 to 2016, on the other hand, the share of financing raised from social contributions fell only marginally on average. In 13 of the EU Member States, the contribution share increased over these six years, most notably in Latvia, Lithuania, Hungary, Poland and Slovakia (where it rose by over 8 p. p. in each case – and by 18 p. p. in Hungary)³¹. In all these countries, however, apart from Lithuania, as well as in other countries where the share of contributions increased significantly – Bulgaria, Czechia, Ireland and Cyprus – the share had fallen over the preceding 5 years (though only marginally in Cyprus), and in most cases it had fallen by more than it rose in the subsequent 6 years. Moreover, in nearly all the countries in which the share of social contributions fell over the period 2010-2016, it had also declined over the preceding 5 years (Estonia is the only exception). Accordingly, there are only six EU Member States – Germany, Cyprus, Hungary, Lithuania, Poland and Slovenia – where the share of revenue raised from social contributions was larger in 2016 than in 2005, though in another six (AT, EE, IE, LU, PT and SK, the share was only slightly smaller than 11 years earlier (by under 2 p. p.). In another six, the reduction in the share of social contributions over the period was less than 5 p. p., so that overall, there was far from a widespread decline of any size in the share. Moreover, in all the countries where a decline occurred, except for Malta, the reduction was concentrated in the period before 2010.

2.2.3 Earmarked taxes

Taxation-based funding for social protection comes predominantly from general taxes rather than earmarked taxes, or taxes which are specifically directed at financing social protection or a particular element of social protection, such as healthcare or social assistance. They can be levied as a separate tax or as part of existing taxes on consumers' expenditure, income or property (see also Box 5). Once the rates are set, the revenue raised from them tends perhaps to be less volatile than the revenue from general taxation in that it is less dependent on annual policy decisions about how much funding should be allocated to social protection.

Despite some shift from social contributions to taxation in the financing of social protection over recent years, there has been little tendency across the EU to use earmarked taxes for this purpose. Only nine EU Member States raised revenue for social protection from earmarked taxes (mostly VAT, but also taxes on property, and income) in 2016, and only in Belgium (10%) and France (24%) did they account for over 5% of total funding. In Ireland, such taxes existed up to 2014, but were then withdrawn, and in the UK they were in existence up to 2006 but not subsequently. In France, the share of earmarked taxes in overall funding remained much the same over the period 2010-2016, as it did in Portugal (but at less than 2% of the total), while in Belgium and Greece, it declined (from 15% in the former and from just over 3% to under 2% in the latter). In Luxembourg, the share of this funding source increased (from under 3% to just over 4%). In Hungary, and Poland, such taxes were introduced during the period, though in the first two countries, they accounted for less than 2% of total financing in 2016, and in Poland for just 4%.

³¹ The published ESSPROS data also show a substantial increase in the share of financing from social contributions in Romania over this period, specifically between 2015 and 2016, but this is entirely a consequence of a revision in the way financing is accounted for; the figures for earlier years are in the process of being revised to be on the same basis as those in 2016. This break in the series has been adjusted for in Figure 16, which for Romania shows the change only up to 2015.

Box 5 Earmarked taxes

France

Earmarked taxes account for 24% of the finance for social protection. These consist of an allocation to social security, since 2004, of specific tax revenues, designed to compensate for reduced social security contributions for those on low wages (e.g. taxes on alcohol and tobacco).

Portugal

New earmarked taxes were introduced in 2017 and 2018, following on from the earmarking of part of VAT to finance social security between 2005 and 2009. An “Additional tax to the Municipal Property Tax” (AIMI) was introduced in 2017 to boost the Social Security Financial Stabilisation Fund (FEFSS). This is levied on the tax value of residential property above a certain threshold. From 2018, part of corporate income tax revenue has also been earmarked for the FEFSS and this will increase each year from an initial 0.5% to 2% in 2021.

Greece

In contrast to the above-mentioned developments, the significant reduction in earmarked taxes in Greece was due to the adoption of Law 4254/2014, which provided for the abolition of most earmarked taxes for social insurance. In the decade before, earmarked taxes were used to finance healthcare and sickness benefits. Although there are indications that earmarked taxes increased during the decade 2004-2014, especially those imposed on alcohol and tobacco, their share in total healthcare financing declined, reaching zero in 2012 and 2013. The Greek ESPN experts provide two possible explanations a) increased taxes resulted in a steep rise in illicit trade and so reduced revenue from them b) as taxes earmarked specifically for health are not institutionalised, the proportion of revenue from taxes on consumption allocated to the health sector is politically determined. It can, therefore, be argued that revenue from indirect ‘sin’ taxes were used to cover part of the public deficit, or for other purposes, instead of healthcare.

In Greece, the sharp reduction in revenue from earmarked taxes was a result of the abolition of most of them in 2014. In Bulgaria, there have been several unsuccessful attempts to introduce earmarked taxes on unhealthy food as an additional source of funding for healthcare.

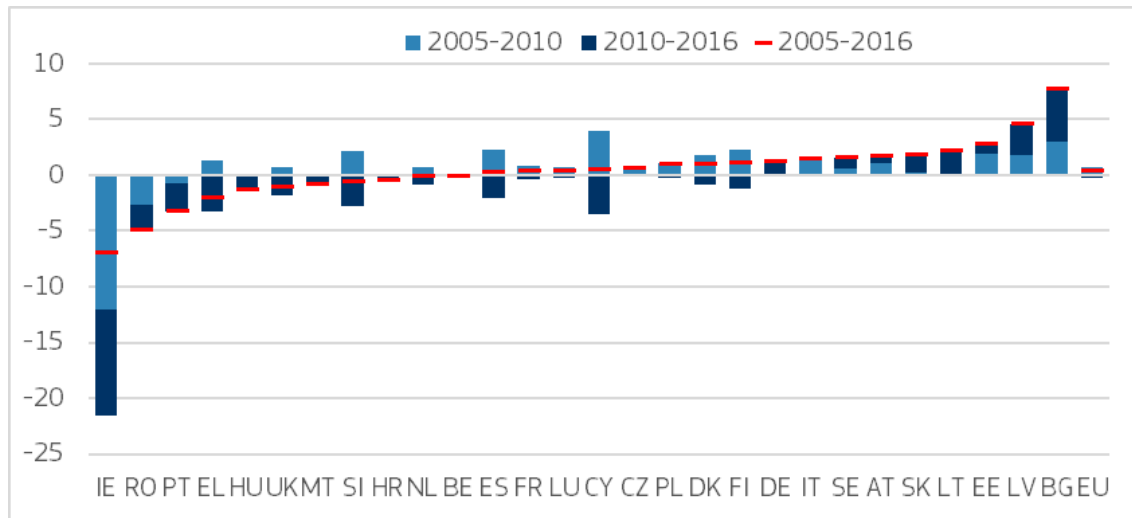
2.2.4 Changes in the base on which social contribution are levied

The evidence suggests that while the share of funding raised from social contributions declined in most countries over the period 2005-2016, there are comparatively few where the decline was substantial. The question considered here is to what extent the changes which occurred over this period are linked to a change in the base on which social contributions, both employers’ and employees’ are predominantly levied – i.e. wages and salaries – as opposed to policy changes in contribution rates or in the extent of coverage.

In practice, the share of wages and salaries in GDP (which, of course, encompass both the number employed and the average wage that the people concerned receive) increased slightly on average over the period 2005-2016 as a whole in the EU rather than declining. It fell in a minority of

countries, 10 of the 28, and in only 6 by more than 1 p.p. – Ireland³², Romania, Portugal, Greece, Hungary and the UK (in the last two, by only just over 1 p.p.) (Figure 18).

Figure 18 Share of wages and salaries in GDP, 2005-2016 (% of GDP)



Note: Changes for Romania for 2010-2016 relate to 2010-15 and for 2005-2016 to 2005-2015

Source: Eurostat, ESSPROS Database and National accounts

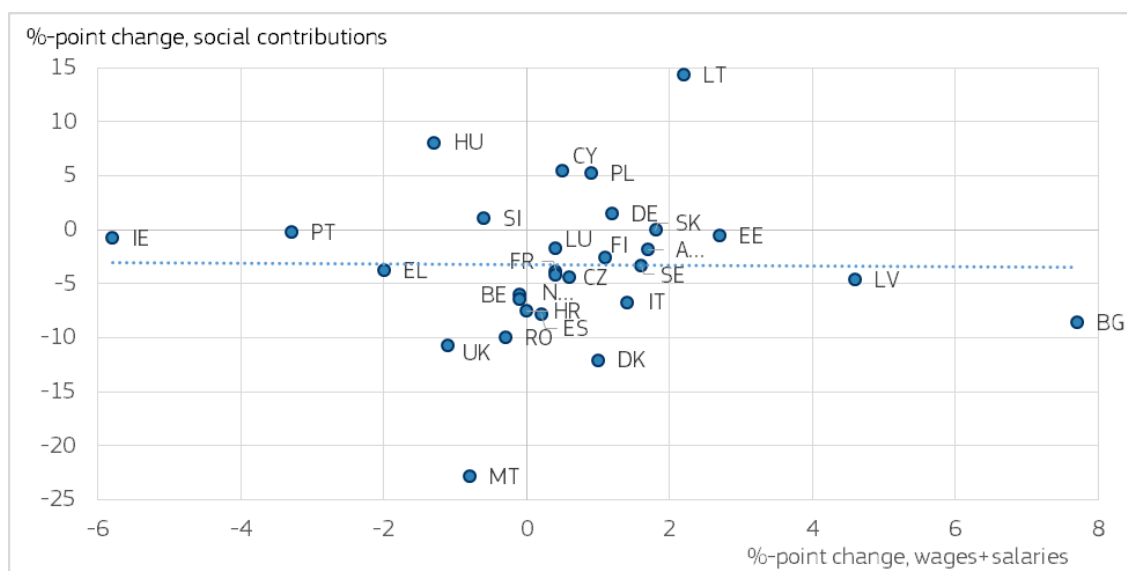
In all of these countries except Hungary, the share of funding raised from social contributions also fell, though only marginally in Portugal. Equally, the share from social contributions declined in Latvia and Bulgaria where there was a significant increase in the share of wages and salaries in GDP. In general, therefore, there is little relationship between the change in the wage share and the change in the contribution share (Figure 19).

This seems also to be the case for changes within the period. While the decline in the share of social contributions in financing largely occurred before 2010, the reverse is the case for the wage share. This declined in 18 of the 28 countries over the period 2010-2016 but only in three countries over the period 2005-2010. Even over the recession years 2008-2010, the wage share increased in most countries, reflecting the large reduction in profits. Although, therefore, wages and salaries fell in these two years and the contribution base was eroded, profits fell by even more.

The implication of the above is that taking the period 2005-2016 as a whole, the reduction in the share of social contributions can be attributed only to a limited extent to an erosion of the wage and salary base on which contributions are predominantly levied. It could still be the case, however, that a change in the composition of wages and salaries towards those not paying contributions at the lower end of the scale and those paying reduced rates at the top end reduced the effective base. Nevertheless, the implication seems to be that policy changes played an important role over the period.

³² The substantial decline which occurred in Ireland is largely a result of the large increase in the value of intellectual property in 2015 which pushed up GDP sharply. Nevertheless, even without this, there is still likely to have been a reduction in the wage share of over 1 p.p. over the period, given that in 2014 the share was 1 p.p. smaller than in 2005 and had fallen by almost 4 p.p. in the preceding 4 years.

Figure 19 Changes in wages and salaries as % GDP and changes in revenue from social contributions as % total financing of social protection, 2005-2016



Note: The change for Romania relates to 2005-2015 because of a break in the series in 2016

Source: Eurostat, ESSPROS Database and National accounts

Indeed, the national ESPN experts show that reforms, depending on the country were at least partly responsible for the change in the financing mix, and in some cases mostly responsible, the reform consisting mainly of changes to the old-age benefits and the healthcare system (see Section 3 for discussion of policy changes). In some countries, the changes consequent on these reforms mainly affected general taxation (e.g. Denmark and Sweden). In Denmark, for instance, the tendency for taxation to increase in importance as a source of social protection financing is particularly evident. Between 2005 and 2016, the share of financing raised from general taxation went up by 14 p.p. to 77%, the highest in the EU. Several tax reforms have been introduced since 2005. These have had the effect of reducing marginal tax rates on income from work – and so curbing any disincentive effects that these might have – and broadening the tax base by reducing the scope of tax allowances.³³

2.3 Division of funding from social contributions by source

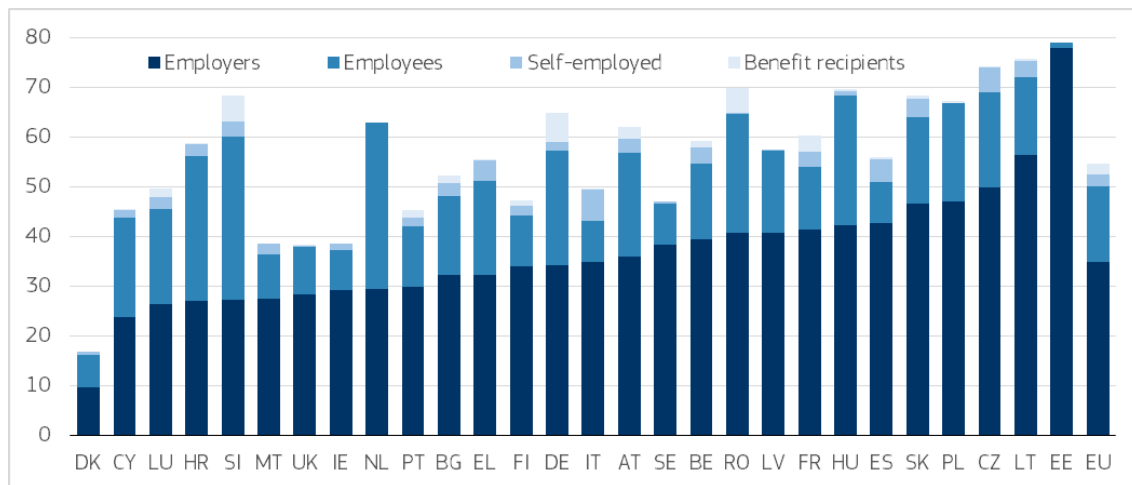
2.3.1 Sources of social contributions in 2016

Most of the revenue from social contributions comes from employers, who provided, on average, 35% of total social protection financing in 2016, over twice the amount paid by employees (15%). The self-employed and benefit recipients themselves accounted for relatively little (2% each) (Figure 20).

Employers accounted for more than half of the revenue raised from social contributions in 2016 in all EU Member States, except Croatia (46%), the Netherlands (46%) and Slovenia (40%). In Ireland, Sweden, Spain and Lithuania, they accounted for 75% or more of the revenue concerned and in Estonia, for 99%.

³³ In addition, expenditure has been cut by reducing levels of some benefits, such as child benefits, partly through incomplete indexation for inflation.

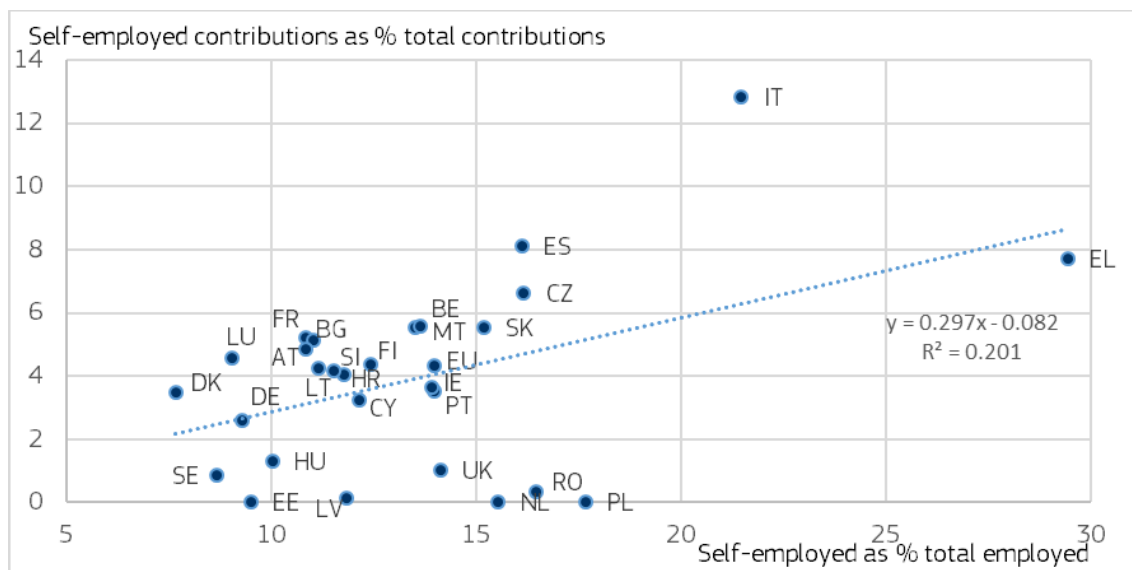
Figure 20 Division of social contributions by source, 2016 (% of total social protection financing)



Note: Countries are ordered in terms of the share of employers' contributions in total financing.
 Source: Eurostat, ESSPROS Database

The self-employed in nearly all countries are responsible for only a very small part of financing. Italy was the only country where over 10% of the revenue from contributions came from the self-employed in 2016 (around 6% of total social protection financing), and Greece and Spain were the only other countries where this figure was higher than 7% (8% in each case, around 5% of total financing). Italy and Greece are also countries where the self-employed make up a large share of total employment³⁴. However, while there is some relationship between the share of social contributions raised from the self-employed and their share of employment, it is not particularly close (Figure 21).

Figure 21 Self-employed as a share of total employment and self-employed contributions as a share of total financing of social protection, 2016



Source: Eurostat, ESSPROS Database

³⁴ See Eurofound 2017 and Spasova et al. 2017

The self-employed in nearly all countries were responsible for only a very small part of financing. Italy was the only country where over 10% of the revenue from contributions came from the self-employed (around 6% of total social protection financing), and Greece and Spain were the only other countries where this figure was higher than 7% (8% in each case, around 5% of total financing). Italy and Greece are also countries where the self-employed make up a large share of total employment³⁵. In 9 countries, the self-employed accounted for 1% or less of the total financing for social protection through the contributions they paid and in most of these for zero or close to zero. In some of these, mainly Nordic countries (Denmark and Sweden), this can, at least in part, be explained by the small numbers of self-employed. Moreover, social protection in these countries, for the self-employed as well as generally, is mostly tax-based, with social contributions playing only a limited role. In some other countries, this may reflect the fact that either the self-employed are not eligible for some social benefits or that eligibility is voluntary and relatively few of the self-employed choose to take up the opportunity. Indeed, more generally, the relatively small share of social protection financing that self-employed are responsible for in nearly all countries is a consequence of the situation of the self-employed in relation to social protection, of the limited extent to which they are covered by the social insurance system as well as the relatively low rates of contribution that in most cases apply to them.

However, social contributions from the self-employed also make up a very small share of social protection financing in the Baltic countries and Romania, which are countries with large numbers of self-employed. This seems partly due to the relatively small income assessment base on which the self-employed pay contributions, as well as to the underpayment of contributions. In Ireland and the UK, where the share of self-employment is around the EU average, the share of social contributions raised from the self-employed is also relatively small. This reflects the fact that they are eligible to a large extent only for the means-tested equivalent of benefits (and not for contribution-based benefits)³⁶

Benefit recipients (i.e. those whose payments of contributions as well as taxes make up the difference between gross and net social protection expenditure) also account for only a very small share of the financing of social protection through the social contributions they pay – on average, in the EU, for only 2% of the total in 2016. Indeed, in many countries, they are exempt from paying contributions at all (though they may still contribute to financing through taxes, as indicated above). Only in Germany and Slovenia was the share of financing raised from benefit recipients more than 5% of the total. (In both Denmark and the Netherlands, it should be noted, while benefit recipients contribute significantly to the funding of social protection, they do so through the tax system and not at all through social contributions.)

2.3.2 Changes in the sources of revenue from social contributions over the period 2005-2016

Over the whole period under examination, 2005-2016, there was an effective shift from employers to employees, in terms of the revenue raised from social contributions, in the sense that the share of the former declined and the share of the latter increased. This is also the case if the period is

³⁵ See Eurofound 2017 and Spasova *et al.* 2017. In Italy, the self-employed accounted for 23% of total employment in 2016 and in Greece, 30%, the two highest figures in the EU. In Spain, the percentage of self-employed was only slightly higher than the EU average (16% as opposed to 15%).

³⁶ Spasova *et al.* 2017.

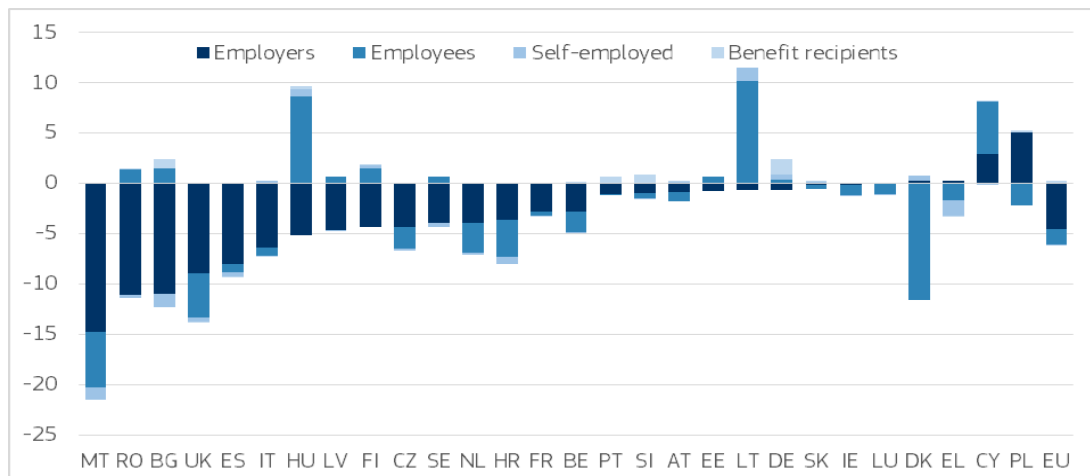
extended back to 2000. There was also a marginal increase in the share of revenue raised from benefit recipients, though the share of revenue raised from the self-employed remained unchanged (Figure 22).

Between 2005 and 2010, the share of social protection financing raised from both employers' and employees' contributions declined in most countries, though in most cases the amount from employers' contributions fell more steeply than that from employees. In only three EU Member States – Denmark, Greece and Poland – was there a significant shift in funding from employees to employers. In most countries, also, the share of financing from the contributions paid by the self-employed either declined or remained much the same over this period. In only three EU Member States – Denmark, Germany and Lithuania – was there much of an increase (0.5 p.p. or more). By contrast, in half the EU Member States there was an increase in the share of financing obtained from benefit recipients, though this was very small in most cases, except in Germany.

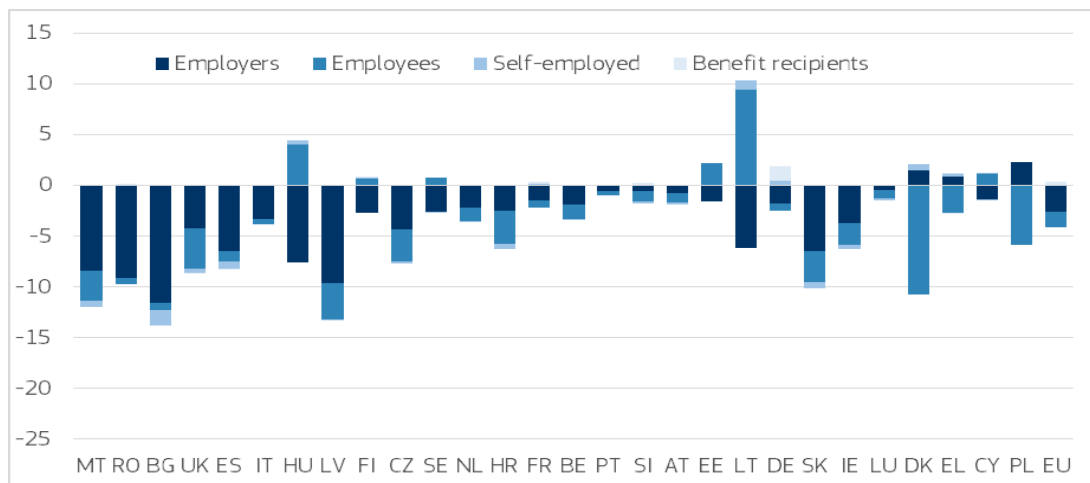
Over the subsequent six years, 2010-2016, there was an even more marked shift in funding from employers to employees. In 20 of the 28 Member States, the share of financing from employers' contributions either declined by more than the share from employees' contributions, declined while the latter increased or increased by less than the latter. In two other countries (Czechia and Luxembourg), the change in share was much the same for both, so that there were only six Member States – Estonia, Ireland, Latvia, Poland and, most notably, Slovakia and Lithuania, – in which there was an effective shift in financing from employees to employers. In all these countries, except Estonia, the share of overall financing raised from both employers' and employee's contributions increased but less for employees than for employers. In the other countries, the effective shift from employers to employees was particularly marked in Cyprus and, to a lesser extent, in Malta and the Netherlands. In in both of the latter countries, the overall share of financing from employees' contributions declined but to a lesser extent than the share from employers' contributions.

This shift, over both 2010-2016 and the previous period, reflects conscious policies to reduce employers' contributions, especially during the crisis. This was the case in Germany, where the contribution rate for employees was 4.4 p.p. higher in 2015 than in 2005 whereas the contribution rate for employers was 1.6 p.p. lower. Successive Federal government efforts, were, therefore, made, from 2000 or so, to lower labour costs while reducing the financial burden on the government by shifting the financing of social protection from taxation more on to employees' contributions.

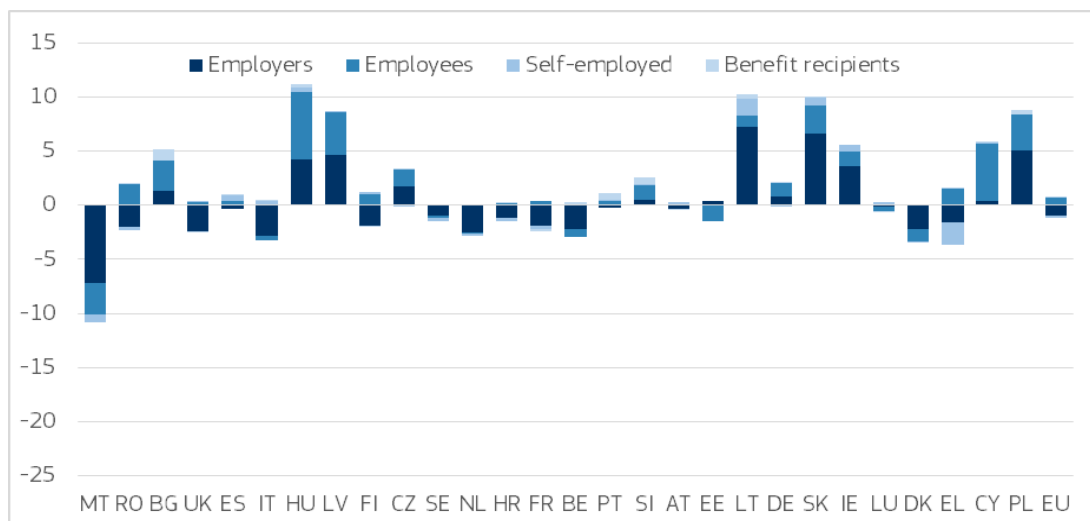
Figure 22 Change in the share of revenue from social contributions as % of total financing of social protection by source, 2005-2016 (percentage point change)
2005-2016



2005-2010



2010-2016



Note: Countries are ordered in terms of the change in the share of social protection financing from employers' contributions between 2005 and 2016. Changes for Romania for 2010-2016 relate to 2010-2015 and for 2005-2016 to 2005-2015

Source: Eurostat ESSPROS Database

Although there was a marginal overall decline in the share of financing raised from self-employed contributions over the period, the share increased in the majority of countries (in 17 of the 28 EU Member States). Where the share declined, this was partly due to the crisis, which forced many self-employed to close down their businesses. For instance, in Greece, before the crisis struck, the share of social contributions paid by the self-employed was tending to increase (rising from 6% of the overall financing of social protection in 2005 to 6.5% in 2008), but, since then, it has fallen markedly (to only just over 4% in 2016). This is a result both of many small traders going out of business and of others being unable to pay their social contributions.

In the majority of countries, too, the share of financing raised from the contributions paid by benefit recipients increased or remained the same between 2010 and 2016, declining only in France and Finland, and then only to a small extent.

2.4 The design of taxes and social contributions

The design of taxes and social contributions in terms of income floors and ceilings can play an important redistributive role in the social protection system.

Social insurance *floors* represent a threshold below which people do not pay taxes and social contributions (exemptions) or may have a specific reduced rate. Countries may have an overall social contribution rate (e.g. BE, CY, EE, ES, IE, LV, MT, PT, UK) or – as is the case in the majority of the Member States – separate social contribution rates for different functions (e.g. AT, BG, CZ, DE, ES, FI, HR, IE, LT, LU, PL, RO, SE, SI, SK) to which they may apply floors. As Table 5 illustrates, floors are applied mainly to old-age benefits and healthcare and sickness benefits.

Table 5 Income floors for social contributions

Old-age pensions	Healthcare and sickness benefits	Other benefits
AT, CZ, DE, IE, LT, RO, SE, SI, SK	AT, FI, BG, CZ, DE, SI	AT, FI, BG, CZ, HR, SK

Source: This table is based on the ESPN Country reports on Financing social protection and on the Missoc database. The table does not claim to be exhaustive.

Countries which have an overall social contribution rate may apply floors to it as well (with exceptions for some functions): Belgium (with the exception of long-term care in Flanders), Cyprus (except for healthcare), Estonia, Spain (except for unemployment and accidents at work), Ireland, Latvia, Malta, Portugal, the UK.

Floors may be favourable to low income groups which cannot afford to pay (high) rates of contribution. However, floors may hinder effective access to social protection benefits, since if the workers are exempted from paying contributions, they do not build up entitlement to benefit. This may, for instance, be the case for some marginal types of work (e.g. mini-jobs in Germany) and some forms of self-employment³⁷.

Lithuania, for instance, introduced floors for old-age pensions in 2018 in order to combat the under-declaring of taxes and social contributions due to widespread undeclared wages and salaries.

³⁷ For more information on effective access for non-standard work and the self-employed, see Spasova *et al.* 2017.

Contributions need to be paid at least on the official minimum wage, even in the case of part-time jobs (except for some groups, i.e. old-age and disability pensioners and young people). Sweden, by contrast abolished the exemption (2007-2016) for young people which was introduced in 2007 in order to stimulate job growth in younger age groups. These exceptions were abolished in 2016 after their effectiveness was questioned, among other things. In Germany, the floor (the exemption for paying social protection for the so-called mini-jobs) was increased once, in 2013, from EUR 400 a month to EUR 450 a month.

In some cases, floors apply to a specific category of worker, such as the self-employed (e.g. CZ, SK, RO). This is the case in Czechia, where the minimum assessment base for the self-employed is set as a proportion of the average wage in the economy (50% for social insurance, 25% for healthcare insurance).

Social contribution *ceilings* on insurable income may also affect the financing of social protection, as well as having distributional effects (mostly regressive). As illustrated in table 6, several Member States apply income ceilings, mainly applicable to pensions. In some cases, only to certain workers (such as the self-employed)³⁸. In Estonia, for instance, there is no ceiling on social contributions, except for the self-proprietors.

Table 6 Income ceilings for social contributions

Pensions	Healthcare and sickness benefits	Other benefits
BG, CZ, EL, FR, IT, LU, LT, PL, SI, SK	BG, CZ, SI	AT, BG, CZ, EL, ES, FR, HR, NL, SK

Source: This table is based on the ESPN Country reports on Financing social protection and on the MISSOC database. The table does not claim to be exhaustive.

In several countries there have been reforms, or attempts at these, either to remove, to set or to increase ceilings. For instance, in Poland the maximum ceiling on contributions paid for old-age, disability and survivor contributions is 250% of the average wage in the economy (set at 30 times the monthly average wage projected for the calendar year). In 2018, the Parliament voted to remove this ceiling. The Constitutional Court overruled this decision, and the contribution ceiling still exists in 2019.

Other countries have introduced or increased ceilings. Lithuania, for instance, is introducing a ceiling in 2019 for social insurance contributions for old-age pensions, at the level of ten times the average wage. In Slovakia, there has been a significant increase in the ceiling on social contributions for financing sickness insurance. Between 2005 and 2012, the ceiling was set as 1.5 times the average monthly wage, while in 2017 it amounted to 7 times the average monthly wage. During the crisis period (2009-2013), Latvia temporarily removed the ceilings (combined with direct cuts in benefits) on social contributions in order to generate more receipts for the social protection system.

Some Member States do not apply ceilings (e.g. HU, EE, FI, IE, PT, SE). For instance, the Finnish income transfer system has no income ceilings for contributions or benefits. Pensions – like all other earnings-related transfers – are earnings-related without any caps. Some countries have been using this leverage in order to increase the inflow of revenue from social contributions. In

³⁸ Some countries which have an overall social contribution rate also apply an income ceiling (e.g. CY, EE, ES)

Hungary, the ceiling on social contribution payments was abolished in 2013. The Hungarian ESPN team estimates that this helped to strike a balance in social security in the short and medium term, but will result in increased benefit inequality. Ireland also abolished the ceiling for social contributions (PRSI) in 2011 which made it a broadly proportional tax. Czechia also abolished ceilings on social contributions for healthcare in 2013.

Income bases also play an important role in the financing of social protection and defining the ceilings and floors for contributions. In general, the income base for social contributions and taxes is the gross wage for employees and a part of trading income for the self-employed. In several Central and Eastern European countries, the latter are often required to pay contributions on the basis of the national minimum wage. Moreover, the ESPN experts from the latter countries (BG, HU, HR, LV, LT) highlight the practice of employers of declaring that workers are paid the minimum wage (while they receive the rest of their wage “under the table”) leading to smaller payments of social contributions (for more information see Section 3) Several reforms have taken place over the period 2005-2016, mostly on expanding and increasing the income base (Box 6).

Box 6 Examples of assessment base for taxes and social contributions

Ireland

The income base was widened in two respects. The lower rate for public sector workers) was abolished in 2013 and they become subject to the usual rate for all employees. An year later (2014) occupational pensioners (under the legal pensionable age of 66) became liable to social contributions on unearned income (investment income, interest and dividends).

Slovenia

Since 2014, the maximum contribution base for the self-employed and farmers has been set at 3.5 times the average gross annual salary (against 2.4 times before).

Poland

In 2016, a new principle of a minimum income base was introduced for social insurance equal to the minimum wage. As a result, if an employee is covered by more than one contract with a total remuneration lower than the minimum, social insurance contributions are payable on the basis of all relevant contracts, up to the required minimum.

Estonia

The minimum income base for social contributions have increased several times since 2005 and in 2019 it is €165.

2.5 EU Candidate Countries and Potential Candidates: overview of the financing of social protection

Most EU candidate countries and potential candidates have a Bismarckian type of social protection financing: revenues from social contributions play a major role in social protection financing, with the percentage ranging from 76% in Bosnia and Herzegovina to 57% in Turkey. The only exception is Kosovo*, where government revenues account for 95% of financing³⁹. Kosovo*'s social protection system is still under construction, continues to depend on international donors, and only a small share of financing comes from social contributions — mandatory pension savings. Social contributions are also slightly less important in Albania, where they represented 51.1% of all financing sources in 2017. Albania has an overall balanced financing mix of social contributions and government revenue: the latter funded 49% of social protection expenditure in 2017, mainly from indirect consumption taxes and only 8% from personal income taxes (Table 7).

Table 7 Sources of overall financing of social protection in EU candidate countries and potential candidates (2005-2016)

	Social Contributions		Government Revenues	
	2005	2016	2005	2016
EU28	58.7%	54.5%	37.8%	40.4%
Albania	51.9%	47.7%	48%	53%
Bosnia and Herzegovina	77%	76%	23%	24%
FBiH	69%	71%	31%	29%
RS	95%	85%	5%	15%
Montenegro	75%	60%	15%	40%
North Macedonia	No information	51.8%	No information	46.3%
Serbia	61.3% (2008)	60.2%	36% (2008)	38.8%
Turkey	42.4%	52.3% (2015)	48.8%	42% (2015)
Kosovo*	No information	No information	99.8%	96.4%

Source: National administrative data for AL, BA, ME, MK and XK*; ESSPROS data for MK, RS and TR.

³⁹ It should be noted that ESSPROS data are available only for Serbia and Turkey, and as of 8 April 2019 for North Macedonia (but only for 2015 and 2016); For the rest of the EU candidate countries and potential candidates, the ESPN Country teams provided national data which does not allow for full comparability. Moreover, at this stage, overall data is still missing for some countries (see Table 11).

3 SOCIAL PROTECTION EXPENDITURE AND FINANCING BY FUNCTION

This section, first, examines expenditure on the different broad functions which make up the social protection system in EU countries and the way that it changed over the period 2005-2016, which has implications for the relative importance of the different sources of financing. The focus, in particular, is on old-age benefits (predominantly retirement pensions but also benefits in kind) and healthcare combined with sickness benefits which account for the greater part of social protection spending in all Member States and which, accordingly, have the most effect on the mix of financing sources. Expenditure on other functions, however, is also considered. Secondly, it examines the division between the broad sources of financing for the different social protection functions, on the basis of estimates derived from the ESSPROS data by scheme, and the changes which occurred over the period from 2005 to 2015, the latest year for which data are available. Again the main focus is on the financing of old-age benefits and healthcare, though the mix of financing sources for the other broad functions and how it changed over the period is examined as well. As above, it also considers expenditure and financing by function in the candidate and potential candidate countries on the basis of the information available.

3.1 Division of social protection expenditure by function

3.1.1 Composition of social protection expenditure in 2016

Old-age benefits and healthcare, here combined with sickness benefits⁴⁰, together account for over two-thirds of total spending on social protection in the EU, with old-age benefits alone accounting for 40% and healthcare for 30% in 2016 (Figure 23).

There is, however, substantial variation across countries in the relative importance of these two items. At one extreme, in Greece, old-age benefits absorbed 55% of total social protection expenditure in 2016, which partly reflects the cutbacks in spending on other functions as part of fiscal consolidation measures as part of the Economic Adjustment Programmes. At the other extreme, in Ireland, Luxembourg and Germany, they accounted for only around 31-32%.

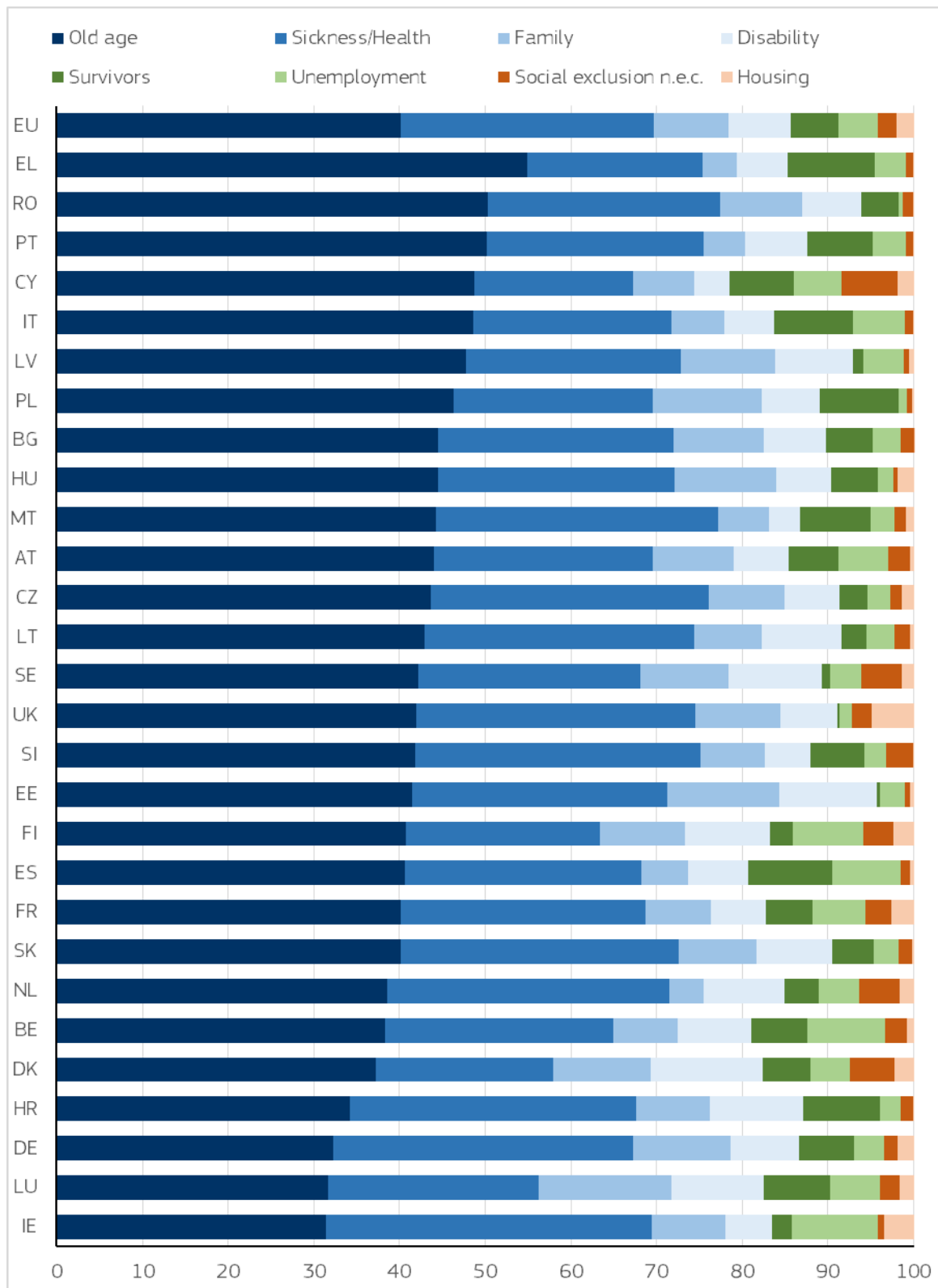
Spending on healthcare made up close to 40% of total social protection expenditure in Ireland but only just over 20% in Denmark. This difference is partly a reflection of the relatively high level of expenditure on other benefits in the latter country, as in Luxembourg and to a lesser extent in Finland and Belgium. However, these four countries apart (where they accounted for between 35% and 43% of spending), “other benefits” taken together accounted generally for around 30% or less of expenditure, and for only just over 20% in Romania.

Expenditure on other benefits goes mainly on family and disability benefits, which accounted for, respectively, just under 9% and just above 7% of total social protection spending on average in 2016. Survivors’ and unemployment benefits are the next most important in terms of spending, accounting for around 5% of the total on average in both cases. Housing and social exclusion plus other benefits accounted for only a relatively small proportion of expenditure: around 2% of the total on average in each case.

⁴⁰ The two are combined here because it is difficult to distinguish the two separately so far as financing is concerned. Sickness benefits account on average for 10-15% of the overall expenditure on the two combined.

The relative share of each type of benefit, however, varies markedly across countries, with, for example, as much as 15% of total social protection expenditure going on family benefits in Luxembourg but only 4% in the Netherlands and Greece. Such differences do not reflect differing numbers of children in these countries (children under 15 make up 16% of the population in both Luxembourg and the Netherlands and only a slightly smaller proportion in Greece, just over 14%), but, rather, differences in the coverage of children (or in how children are defined for support), differences in the generosity of schemes and eligibility conditions. Similarly, 13% of expenditure goes on disability benefits in Denmark but only 4% in Cyprus: a differences which again reflects differences in policy towards people with disabilities, their coverage, the level of benefits, periods of receipt of benefits and eligibility conditions. In addition, 10% of expenditure is allocated to unemployment benefits in Ireland but less than 1% in Poland and Romania, where the unemployment rate is only slightly lower than in Ireland (6% as opposed to 8% in 2016).

Figure 23 Breakdown of social protection expenditure by broad function, 2016 (% total social protection expenditure)



Note: Countries are ordered in terms of the share of old-age benefits in total expenditure.

Source: Eurostat, ESSPROS Database

3.1.2 Changes in the composition of social protection expenditure, 2005-2016

On average over the period 2005-2016, the share of total social protection expenditure allocated to old-age benefits in the EU increased by 1.6 p.p., while the share allocated to healthcare (including sickness benefits) went up by 0.8 p.p.. Accordingly, the share of expenditure on other benefits declined by 2.3 p.p. (Figure 24). This pattern of shifts in the composition of expenditure, however, was by no means universal across the EU. Whereas there was an increase in the old-age benefit share of spending in most countries (21 of the 27), the share of spending on healthcare declined in most Member States (19 of the 28), while the share of “other benefits” increased in six countries.

In the case of old-age benefits, the share of social protection spending on these declined by around 2 p.p. or more over the period 2005-2016 in Bulgaria, Germany, Estonia, Italy and Poland, the decline occurring in both the 5 years before 2010 and the six years after in Germany, Italy and Slovenia). By contrast, the old-age benefit share of spending increased by 8 p.p. or more in Hungary, Spain, Portugal and Romania, in all of which the share of expenditure on both healthcare and other benefits declined.

In the case of healthcare, in four of the nine countries in which the share of healthcare spending rose over the period, the increase was small – only around 1 p.p. or less. In the other 5 – Germany, Malta, Poland, Slovakia and the UK – the main counterpart of the increase was a reduction in the share of spending on benefits other than old-age. Nevertheless, despite the widespread decline in the share of spending on healthcare over the period as a whole, in the majority of countries (16 of the 28), there was an increase in the share over the period 2010-2016.

In the case of “other” benefits, the decline in the share which occurred in most countries over the 2005-2016 period (in 22 of the 28), was spread across the different types of benefit included, though less in respect of housing and social exclusion benefits (for which the share increased in around half the Member States) than the others. This was also the case in the 2010-2016 period (Figures 25-30).

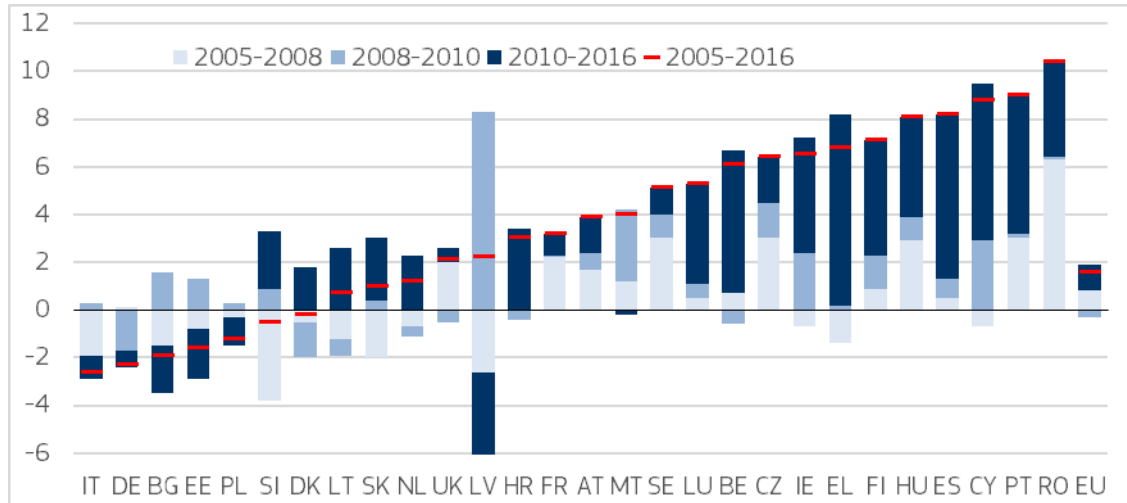
For family benefits, there are three countries – Italy, Bulgaria and Poland – in which their share of total expenditure on social protection increased by more than 1 p.p. over the period 2005-2016, most of the increase occurring after 2010 in Italy and Poland and all of the increase occurring before 2010 in Bulgaria. By contrast, in Cyprus, Romania and Ireland, the share fell by over 3 p.p. over the period. and in another 10 countries, by 1 p.p. or more.

For disability benefits, there are also three countries in which the share increased by more than 1 p.p. between 2005 and 2016, Belgium, Latvia and Estonia, the increase mainly occurring after 2010 in the first two and before in the third. At the same time, there are 5 countries, in which the share fell by 3 p.p. or more. – Poland, Sweden, Hungary, Slovenia and Finland – and another 11 where the reduction was 1 p.p. or more.

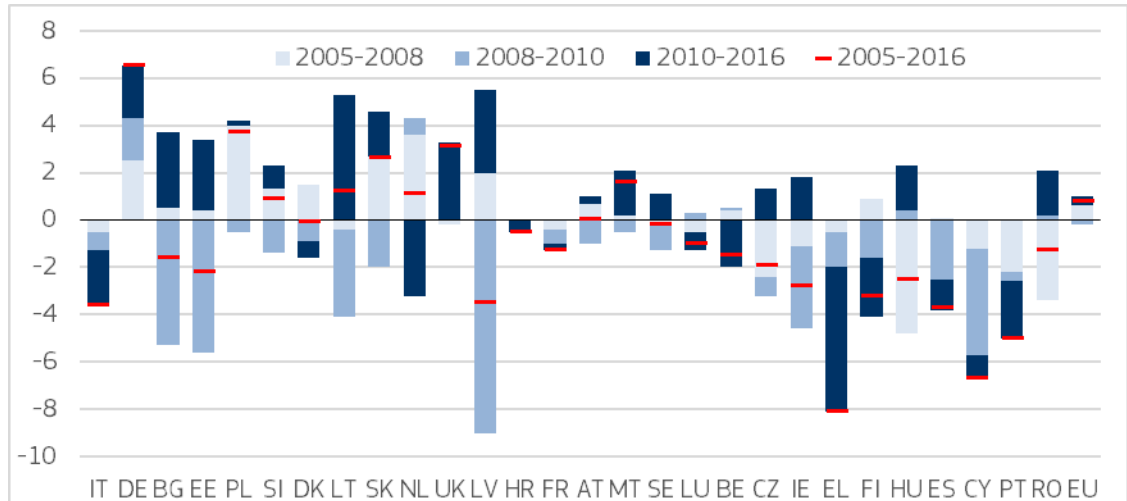
For survivors benefits, Slovenia and Denmark stand out as experiencing a substantial increase in the share (of 4-5 p.p.) over the period, while there are 12 countries in which the share fell by 1 p.p. or more, most notably in the UK, Ireland and Luxembourg, where the reduction was 2-3 p.p.

Figure 24 Changes in the share of total social protection expenditure accounted for by old-age, healthcare+illness and other benefits, 2005-2016 (percentage point change)

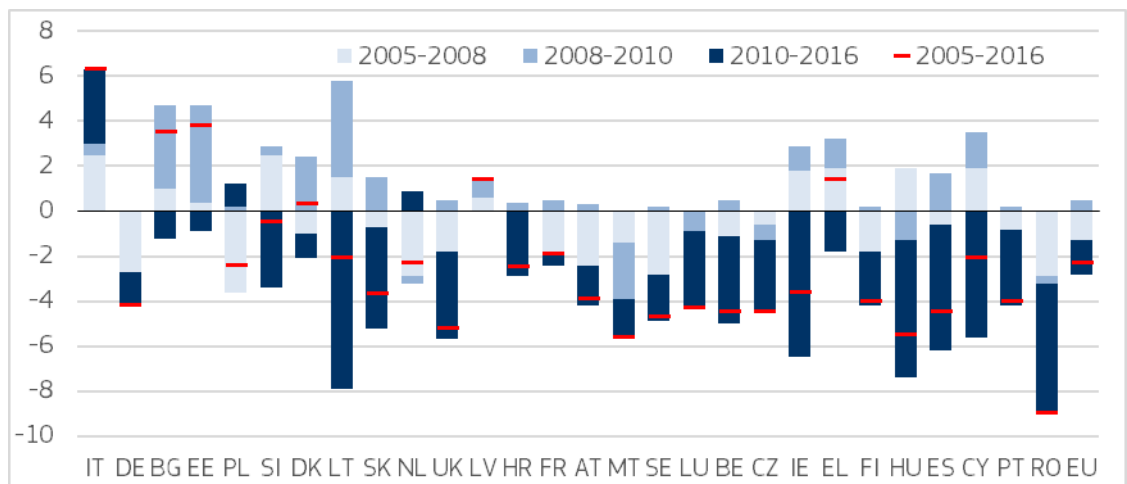
Old-age benefits



Healthcare and sickness benefits



Other benefits



Note: Countries are ordered in terms of the change in the share of old-age benefits over 2005-2016. The change for HR for 2005-2016 relates to 2008-2016.

Source: Eurostat, ESSPROS Database.

In the case of unemployment benefits, the share of total expenditure on social protection tended to change more between 2005 and 2016 than for the other functions, reflecting the fluctuations in unemployment over the period. In five countries, the share was at least 1 p.p. larger in 2016 than 11 years earlier, most markedly in Italy (4 p.p. larger), where the increase was a result of an extension of the coverage of benefits as well as of a rise in unemployment (see in Section 3.1.5). There are 11 countries in which the share was smaller in 2016 by 1 p.p. or more, most notably in Belgium, Denmark and Germany, in all of which the share fell by 4 p.p. over the period.

For social exclusion benefits, there are as many countries (7) in which the share of total social protection expenditure fell by 1 p.p. or more over the period as it increased, the increase exceeding 2 p.p. in Cyprus, the Netherlands and Sweden and occurring wholly or mainly before 2010 in the first two but almost entirely after 2010 in Sweden.

In the case of housing benefits, there was very little change in the share between 2005 and 2016 in most countries, the main exceptions being Luxembourg, Ireland and Finland, where the share increased by 1 p.p. or more over the period.

Figure 25 Changes in the share of total social protection expenditure accounted for by family and child benefits, 2005-2016 (percentage point change)

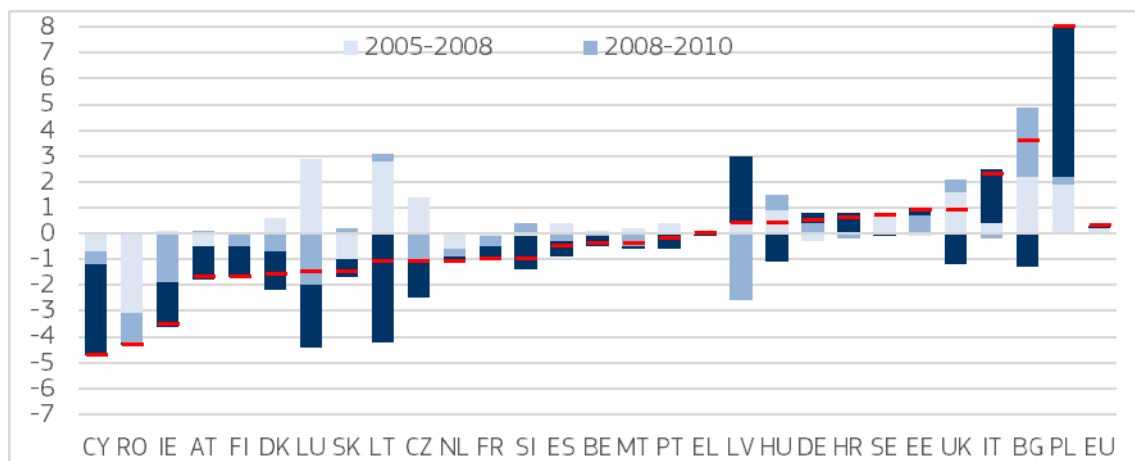


Figure 26 Changes in the share of total social protection expenditure accounted for by disability benefits, 2005-2016 (percentage point change)

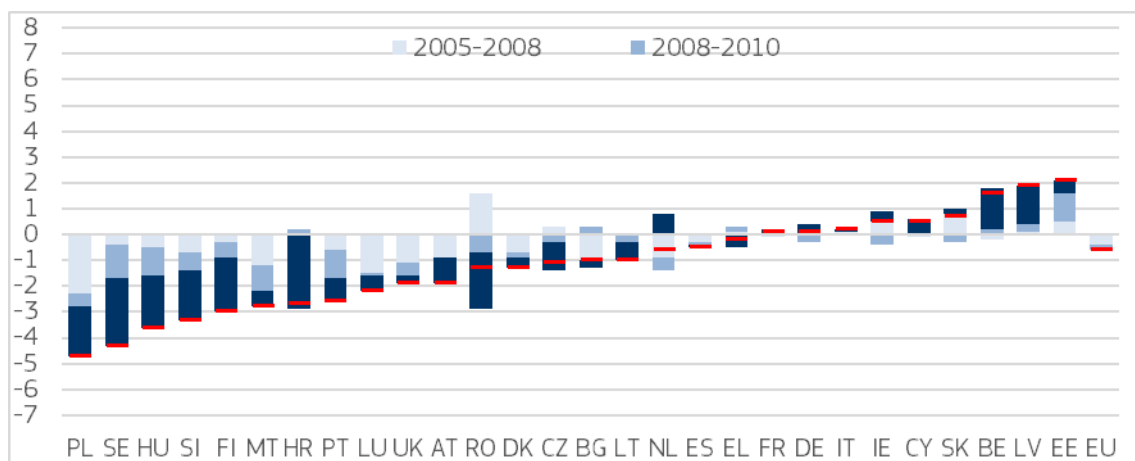


Figure 27 Changes in the share of total social protection expenditure accounted for by survivors' benefits, 2005-2016 (percentage point change)

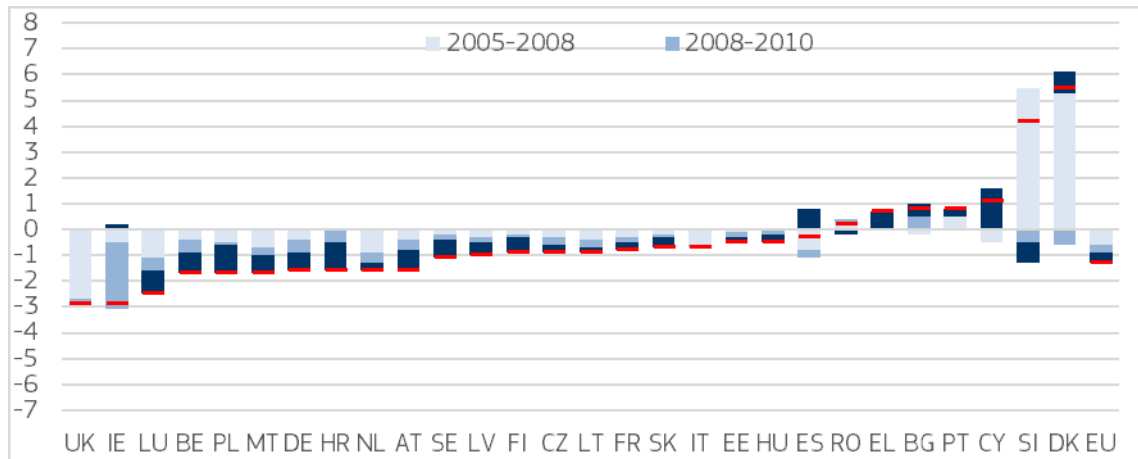


Figure 28 Changes in the share of total social protection expenditure accounted for by unemployment benefits, 2005-2016 (percentage point changes)

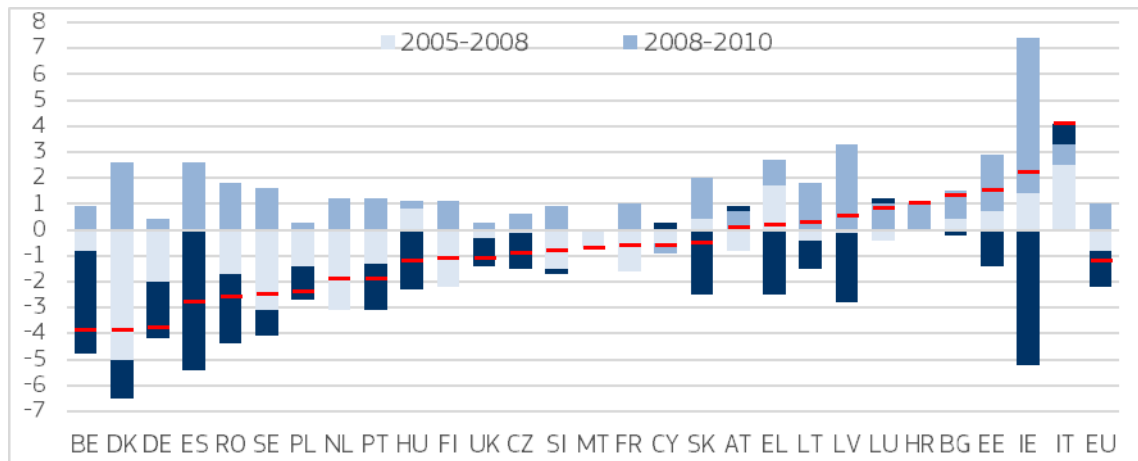


Figure 29 Changes in the share of total social protection expenditure accounted for by social exclusion benefits n.e.c., 2005-2016 (percentage point change)

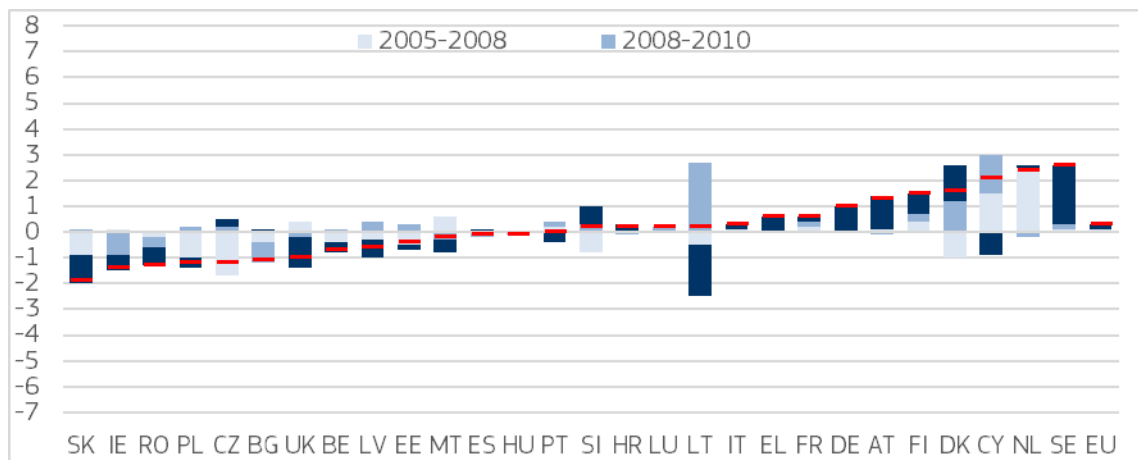
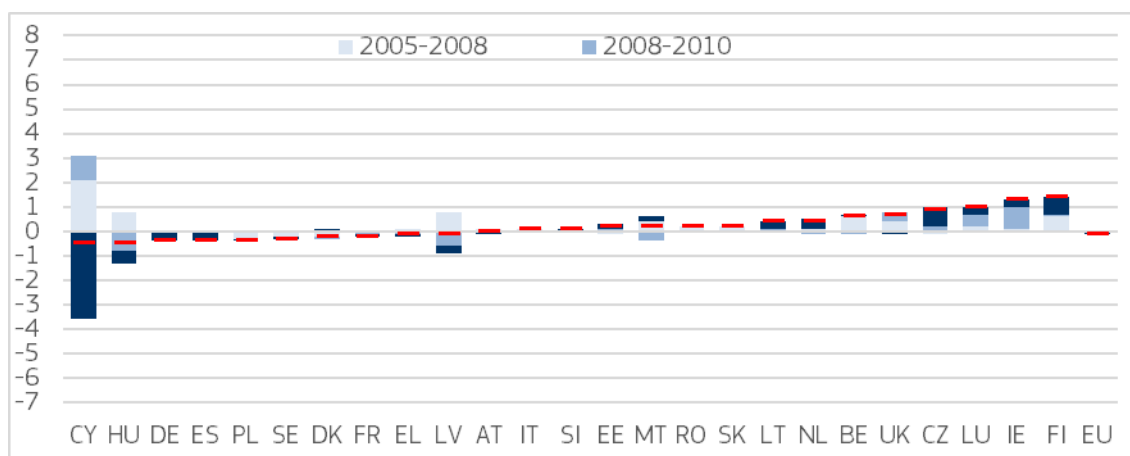


Figure 30 Changes in the share of total social protection expenditure accounted for by housing benefits, 2005-2016 (percentage point change)



Note to Figures 25-30: For HR, changes for 2005-2010 relate to 2008-2010 and for 2005-2016 to 2008-2016. No housing benefits for BG, HR, PT.

Sources for Figures 25-30: Eurostat, ESSPROS Database.

3.1.3 Changes in expenditure on old-age benefits

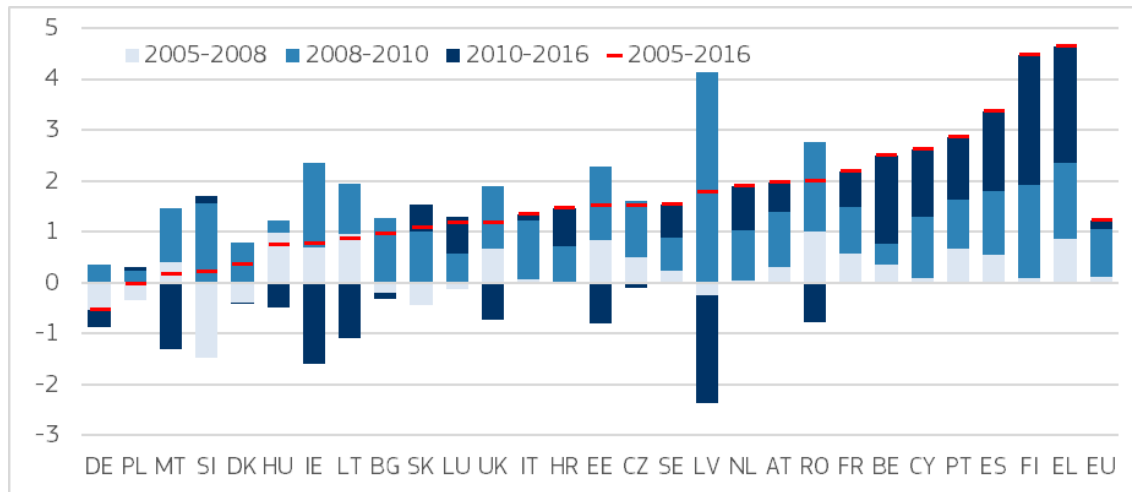
The implications of the changes in the composition of social protection expenditure described above for financing depend on the changes which occurred in overall expenditure relative to GDP, while the implications for the real value of the benefits concerned depend on the developments both in total expenditure and prices.⁴¹ These are examined in turn below in respect of old-age benefits, while the following section considers expenditure on healthcare.

Over the period 2005-2010, there was an almost universal tendency for expenditure on old-age benefits to increase relative to GDP, as might be expected given the ageing of the population and growing numbers reaching pensionable age. In the EU as a whole, the share of the population aged 65 and over (65 being the retirement age in most countries), increased by 1 p.p. in the five years 2005-2010. Over the same period, expenditure increased relative to GDP in all countries apart from Germany and Poland where there were marginal reductions, concentrated in the years before the onset of the global recession in both cases (Figure 31). This was despite an increase in the share of the population aged 65 and over, of 2 p.p. in Germany and 0.5 p.p. in Poland.

Over the subsequent six years, 2010-2016, however, when a more widespread tendency for expenditure to increase might have been expected as the baby-boom generation reached retirement age, there are 11 EU Member States where spending on old-age benefits fell relative to GDP. This is particularly the case in Latvia, Ireland, Malta and Lithuania, in all of which expenditure relative to GDP declined by over 1 p.p. At the same time, in all of these countries, and in most of the others where reductions occurred, spending, had risen by much more than GDP in the five years before (both before and during the recession). There may, therefore, have been adjustments made to the earlier expansion, such as not adjusting pensions in line with inflation (see below in this section for a description of policy changes).

⁴¹ The price index used to adjust nominal social protection expenditure to real terms is the same for all the functions.

Figure 31 Changes in expenditure on old-age benefits as a % of GDP, 2005-2016 (percentage point change)



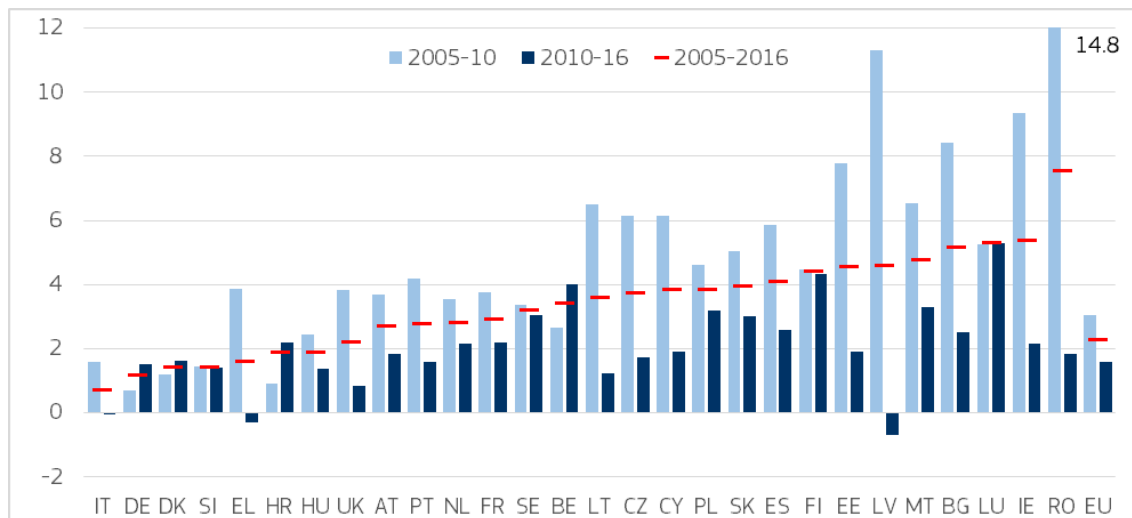
Note: Countries are ordered by the overall increase over the period. No data for HR 2005-2008
 Source: Eurostat, ESSPROS Database

In the 11 countries where expenditure fell in relation to GDP over the period 2010-2016, apart from Germany and Poland, spending on old-age benefits was still higher relative to GDP in 2016 than it had been 11 years earlier, though in Malta, the overall increase over the period was marginal. In Germany, although the decline in expenditure after 2010 was relatively small, it offset the increase which occurred between 2008 and 2010 after the reduction in the previous three years and meant that spending on old-age benefits relative to GDP in 2016 was just over 0.5 p.p. lower than in 2005. In Poland, there was only a very small increase, but added to the increase which occurred over the 2008-2010 period, this offset the decline which occurred between 2005 and 2008, so that spending relative to GDP was much the same in 2016 as 11 years earlier.

At the opposite extreme, expenditure on old-age benefits relative to GDP increased by 4-5 p.p. over the period 2005-2016, in Finland and Greece, and by over 2 p.p. between 2010-2016. In Greece, however, GDP was 17% lower in real terms in 2016 than in 2005 and 18% lower than in 2010, while in Finland, GDP in real terms was only 7% higher in 2016 than 11 years earlier and just 3% higher than in 2010. The significant increases relative to GDP in both cases, therefore, do not necessarily signify substantial increases in expenditure in real terms. Much the same is true of Cyprus, Portugal and Spain, where spending on old-age benefits rose by 2-3 p.p. relative to GDP over the period 2005-2016 and by over 1 p.p. between 2010 and 2016 and where real GDP either declined (by 3% in Cyprus and Portugal) or increased by very little (by 2% in Spain) over the latter period.

Nevertheless, in all of these countries, expenditure on old-age benefits increased in real terms between 2005 and 2016, though less so in Greece than the other four. It also increased in all other EU Member States, by just over 2% a year on average in the EU, and by over 5% a year in Bulgaria, Luxembourg and Ireland and over 7% a year in Romania (Figure 32). The increase, however, was in most cases less after 2010 than before and in three countries – Italy, Greece and Latvia – expenditure fell in real terms over these 6 years, though the reduction was marginal in Italy.

Figure 32 Changes in expenditure on old-age benefits in constant price terms, 2005-2016 (annual average % per year)

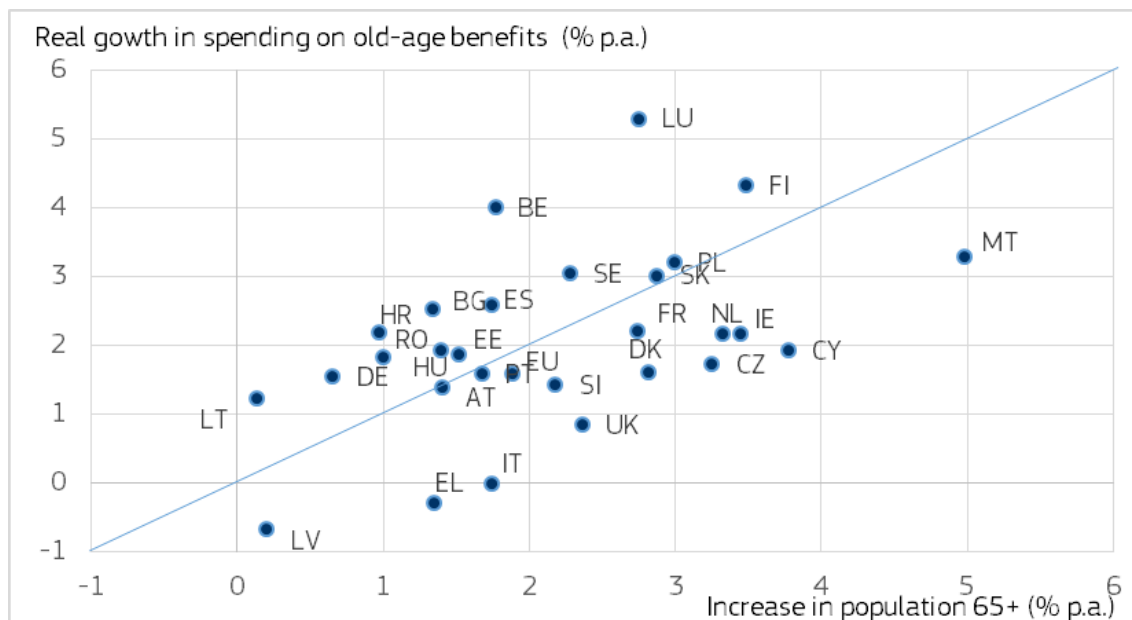


Note: For HR, the change for 2005-2010 relates to 2008-2010 and for 2005-2016 to 2008-2016.

Source: Eurostat, ESSPROS Database.

In practice, in all of the latter three countries, the reduction in spending on old-age benefits between 2010 and 2016 is particularly striking if compared with the increase in the population aged 65 and over, which, though relatively small in Latvia, averaged well over 1% a year in both Greece and Italy (Figure 33).

Figure 33 Growth in expenditure on old-age benefits in real terms and increase in population aged 65 and over, 2010-2016 (annual average % change)



Note: For countries below the diagonal line, the real increase in expenditure on old-age benefits was less than the increase in population aged 65 and over. For countries above the line, it was more.

Source: Eurostat, ESSPROS Database and demographic statistics.

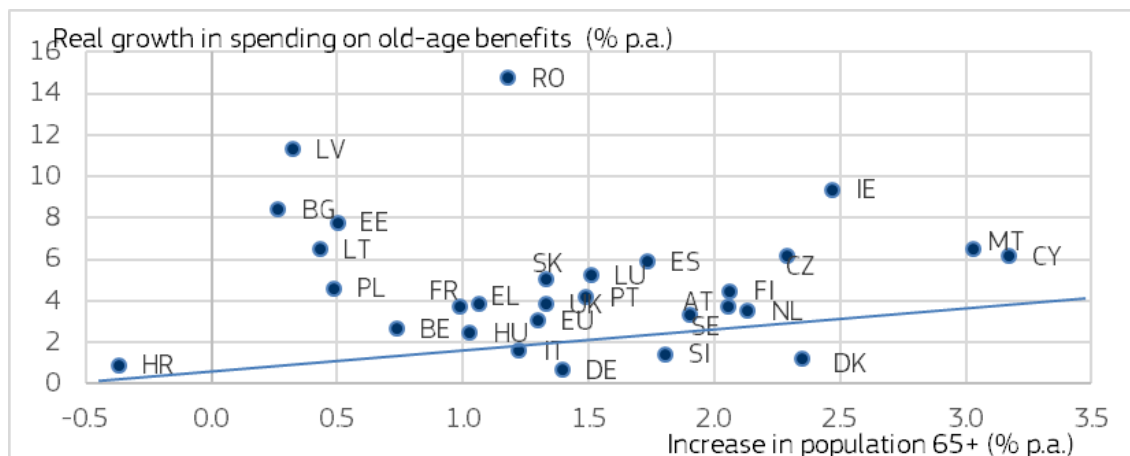
There are another 10 Member States where real expenditure on old-age benefits failed to keep pace with the increase in population aged 65 and over and in six of these – Czechia, Denmark,

Ireland, Cyprus, the Netherlands and the UK – the difference was more than 1 p.p., as it was in Greece and Italy.

This came after a five-year period when there were only three Member States – Denmark, Germany and Slovenia – in which spending on old-age benefits lagged behind the increase in population aged 65 and over and in only one of these, Denmark, was the difference over 1 p.p. (Figure 34). It is noteworthy that the failure of spending to keep up with the growth of population of pensionable age in these three countries occurred in the three years before 2008 rather than in the recession period 2008-2010.

This, of course, does not necessarily mean that average expenditure per person in retirement also declined over this period in these countries, or indeed, in the many countries in which spending fell relative to the population aged 65 and over in the period after 2010. It is quite possible that the number of people of 65 and over does not reflect the number in retirement because of both a reduction in the number retiring before they reach 65 (as noted below the possibility of taking early retirement was greatly restricted in many countries over the period) and more people of 65 and over delaying their retirement (with incentives to do so being introduced in a number of countries – for policy reforms and country specific cases see below). Nevertheless, relating spending on old-age benefits to those aged 65 and over represents a useful benchmark against which to assess the changes in expenditure which have occurred.

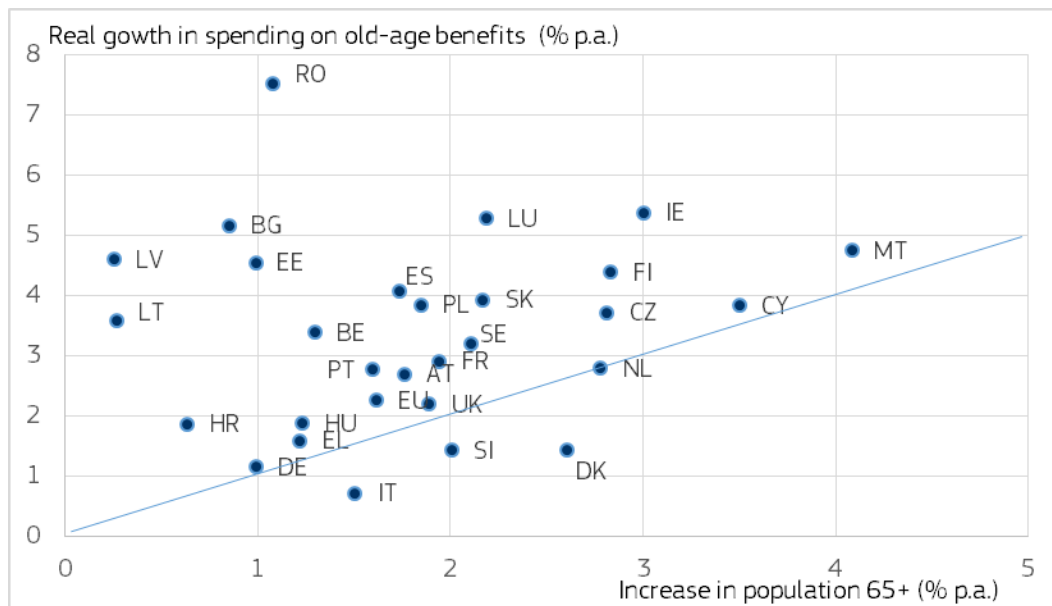
Figure 34 Growth in expenditure on old-age benefits in real terms and increase in population aged 65 and over, 2005-2010 (annual average % change)



Note: For countries below the diagonal line, the real increase in expenditure on old-age benefits was less than the increase in population aged 65 and over. For countries above the line, it was more.
 Source: Eurostat, ESSPROS Database and demographic statistics.

The result of developments over both 2005-2010 and 2010-2016 is that, over the 11 years 2005-2016, spending on old-age benefits in real terms increased relative to population aged 65 and over in all EU Member States except the Netherlands, where the growth in spending was the same as that in the population concerned, and Denmark, Italy and Slovenia, where spending grew by less than population (Figure 35).

Figure 35 Growth in expenditure on old-age benefits in real terms and increase in population aged 65 and over, 2005-2016 (annual average % change)



Note: For countries below the diagonal line, the real increase in expenditure on old-age benefits was less than the increase in population aged 65 and over. For countries above the line, it was more.

Source: Eurostat, ESSPROS Database and demographic statistics.

The increase in spending relative to population of 65 and over, however, was marginal in Germany, Greece, Cyprus and the UK, while, on the other hand, it was relatively large.

The above developments in expenditure on old-age benefits relative to the increasing number of people reaching pensionable age, especially over the period after 2010, reflect reforms implemented both over this period and before. All Member States have been trying to contain and react to the pressure on expenditure from demographic trends through reforms aimed at maintaining the financial sustainability of pension systems⁴². Accordingly, the factors affecting expenditure on old-age benefits are multiple, and the changes in spending observed in any country during this period cannot be attributed directly to a single cause (for examples see Box 7).

There were two waves of old-age pension reforms after the mid-1990s which were primarily aimed at ensuring the financial sustainability of pension systems, in response to major demographic and economic changes. The first (mid-1990s to mid-2000s) already saw an emphasis on increasing pensionable ages, moving from defined benefit to defined contributions schemes, and on introducing statutory funded schemes. As noted by several ESPN national experts (e.g. in AT, BG, DE, FI, SE), some of the changes which occurred during the period 2005-2016 were a result of reforms already enacted before 2005, such as increases in the pensionable age and the closure of early retirement pathways. The second wave began with the onset of recession in 2008 and has been marked by cost-containment reforms to raise the pensionable age, tighten eligibility conditions and reduce the generosity of benefits in some countries, linked to increases in life expectancy⁴³. In general, the 2005-2016 period is one which saw the continuation of such reforms, with the exception of the recession years when several ad hoc measures were implemented.

⁴² European Commission (2015).

⁴³ European Commission (2015).

However, it should be noted that in several Central and Eastern European countries, statutory funded pension schemes were permanently removed (HU, PL) or their coverage (SK) or contribution rates (e.g. LV) were reduced (see also Section 3.2.1)

As indicated above, the main changes took place in the period 2010-2016, when expenditure on old-age benefits declined both relative to GDP and in real terms, relative to population aged 65 and over. These changes partly reflect policy measures implemented during the first half of the period, some of which, such as freezes on indexation of pensions or direct cuts in benefits, had an immediate impact. Many of the Member States (BG, DE, EE, IE, HU, LV, LT, RO, UK) where old-age benefit expenditure as a share of GDP declined during this period reduced benefit payments. In particular, over half the Member States reduced the real value of pensions by temporarily halting and/or permanently reducing the indexation of pensions (e.g. BG, CZ, EL, FI, FR, HU, IT, LV, ES, PT, RO, SE). In addition, direct cuts to pensions were made in a number of countries (CY, EL, HU, IE, LT, LV, PT, RO, SI). In Latvia, for example, pensions benefits were cut by 10% in 2009 (as evident in Figure 32).

Together with these *ad hoc* measures, many Member States introduced reforms with a longer-term effect. These included (further) increases in pensionable age (CY, CZ, DK, EE, IE, EL, ES, FR, HU, IT, HR, IT, LV, LT, MT, NL, PT, RO, SI, SK, UK) and mechanisms linking this to life expectancy (CY, DK, EL, IT, NL, PT, SK). A number of Member States also increased the length of contributory periods (CY, CZ, EL, IT, NL, PT, SK) and a larger number took further steps to restrict access to early retirement (AT, BE, CY, DK, EL, ES, HU, IT, MT, EL, PL, LU, SI, FI)⁴⁴.

The period of recovery from the crisis saw changes in the pension reform dynamic across the EU. This started to shift in 2014, with measures, mostly, to safeguard the adequacy of pensions, in particular for low income pensioners (e.g. in AT, BE, BG, CZ, EE, EL, IE, IT, MT, PL, RO, SK, SL, SE). This led to increased expenditure and a stronger need for financing from general government revenue (see Section 2.4.1). In addition, several countries revoked the freeze on indexation or introduced new, more favourable, indexation mechanisms (e.g. BE, CY, CZ, LV, LT, PT, RO, SI).

However, at the same time, there has been a clear continuation of previous reforms to safeguard or increase financial sustainability. Several Member States have introduced new increases in the pensionable age, some in line with life expectancy (BE, BG, EL, FI, NL, UK); a lengthening of working life (e.g. BE, BG, CZ, ES, FR, LT, MT, UK); and a reduction in the opportunity for early retirement (e.g. AT, BE, BG, DK, FI, LU, PT)⁴⁵. Since most of these reforms were enacted after 2014, their effect does not necessarily show up in the statistics described above⁴⁶.

Box 7 shows examples of the factors behind significant developments in old-age benefit expenditure.

⁴⁴ European Commission 2015.

⁴⁵ European Commission (2018a).

⁴⁶ Projections show that due to these past and on-going reforms restricting access to early retirement and raising the pensionable age, would reduce the increase of pension expenditure as a share of GDP in the EU by 2.6 p.p. in the period up to 2060. Lower average pensions relative to wages in the future would further reduce the increase by another 3.0 p.p., while increased employment accounts for a further reduction of 1.4 p.p. (European Commission 2015).

Box 7 Reasons behind developments in expenditure on old-age benefits in some countries
(2005-2016)

Greece

Expenditure on old-age benefits in Greece increased marginally in real terms in relation to population of pensionable age over the period 2005-2016, even though it increased by almost 5 p.p. relative to GDP, reflecting the large decline in the latter. Over the six years after 2010, however, expenditure on old-age benefits declined markedly relative to population. Greece – together with Latvia- were the only countries where expenditure on old-age benefit declined in real terms after 2010. Cuts in other areas of social protection enabled the reduction in spending over the period as a whole to be tempered. Nevertheless, there were several rounds of reductions in pensions after 2010, one of the most significant being a cut of around 40%, of pensions exceeding EUR 1,000 a month.

Romania

Romania experienced the biggest increase in expenditure on old-age benefits in real terms over the 2005-2016 period (by at around 8% a year), most of it occurring in the first five years (by 15%) a year. The increase, in part, reflects a reform introduced in 2010 to absorb the special military pension scheme into the mainstream public system, which increased overall spending, since the pensions of the people concerned were recalculated and, mostly, raised. The number of means-tested pensions also expanded over the period.

Latvia

Although expenditure on old-age benefits increased in real terms over the period 2005-2016, the increase was concentrated in the years before 2010 and in the six years after, it declined, especially in relation to the population aged 65 and over. This was a result of direct cuts in pensions – e.g. the early retirement pension, in particular being reduced from 80% of previous earnings to 50% in 2009 – and a freeze on the indexation of pensions imposed at the time.

Lithuania

In Lithuania, as in Latvia, spending on old-age benefits was restrained by direct cuts in the value of pensions, with social insurance pensions being reduced by 5% on average between 2010 and 2011 and supplementary state pensions by between 5% and 20%, as well as by a freeze on the indexation of pensions. Nevertheless, expenditure went up in real terms between 2010 and 2016, though by much less than over the preceding five years.

Germany

In Germany, real expenditure on old-age benefits was reduced over the period 2005-2010 relative to the number of people aged 65 and over. This was due mainly to the “Riester reform” which came into effect in 2002, and which was primarily aimed at making the pension system financially sustainable. This paradigm shift included the abolition of the “principle of relative standard of living”, the introduction of a new public-private mix for the financing of pensions, and a change from a defined benefit to more of a defined contribution system.

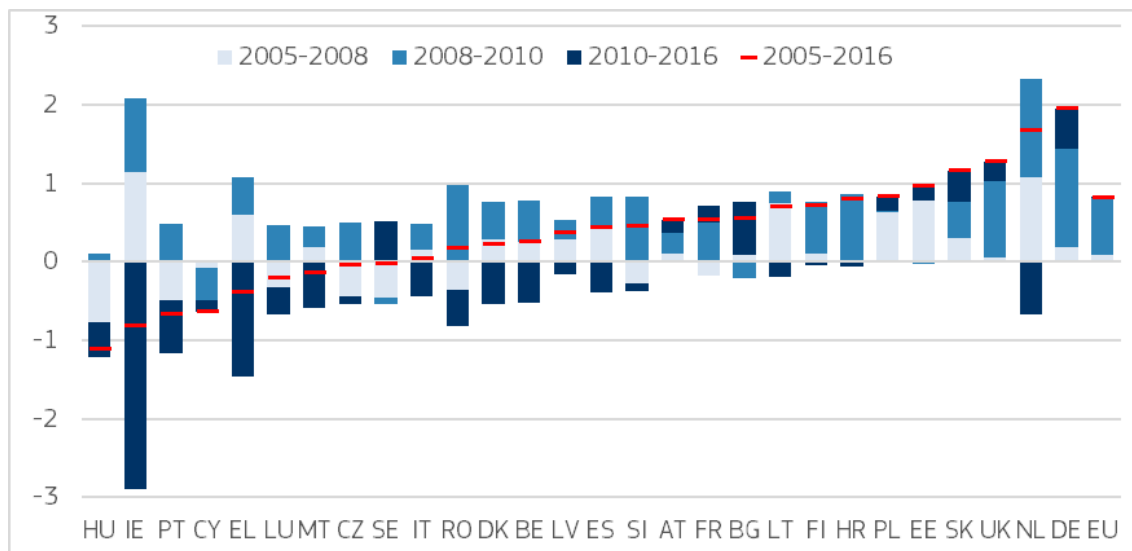
3.1.4 Changes in expenditure on healthcare

Expenditure as a share of GDP

In the years before the crisis, expenditure on healthcare either increased in relation to GDP or remained much the same in virtually all EU countries. Since the crisis, however, despite the growing demand for healthcare (especially as result of the ageing population), expenditure has declined as a share of GDP in the majority of countries.

Over the five years 2005-2010, therefore, healthcare expenditure relative to GDP (here, as above, including spending on sickness benefits) increased in all EU Member States apart from Hungary, Cyprus, Sweden and Bulgaria (Figure 36). Over the subsequent six years, it declined in 18 Member States, including in two countries, Hungary and Cyprus, where it had fallen in the earlier period. There are only three countries — Bulgaria, Sweden and Germany – in which expenditure rose by 0.5% of GDP or more over this period, and in the first two of these, this followed a fall in the previous five years.

Figure 36 Changes in expenditure on healthcare and sickness benefits as a % of GDP, 2005-2016 (percentage point change)



Note: Countries are ordered by the overall increase over the period. No data for HR 2005-2008 and change for 2005-2016 relates to 2008-2016.

Source: Eurostat, ESSPROS Database

Nevertheless, over the period 2005-2016 as a whole, spending on healthcare rose as a share of GDP in the majority of countries, though in only four of these (Slovakia, the UK, the Netherlands and Germany) did it increase by more than 1 p.p. In six countries (Hungary, Ireland, Portugal, Cyprus, Greece, and Luxembourg), it declined, (though in Ireland, this mainly reflects the very high rate of growth of GDP recorded – well over 10% a year). In Greece, it fell despite the substantial fall in GDP, implying that, in real terms, there was a substantial reduction over these 11 years (see below).

In three Member States, – Cyprus, Latvia and Romania – healthcare spending was below 4% of GDP in 2016, less than half of the EU average. In both Latvia and Romania, spending increased as a share of GDP over the preceding 11 years, though by relatively little (by less than 0.5 of a p.p.) and not at all in the years after 2010. In Cyprus, it declined relative to GDP throughout the period, especially between 2010 and 2016 when GDP also fell in real terms.

Overall, there was no tendency for spending on healthcare to increase by more in relation to GDP in those countries where it was initially low than in those where it was initially high, either over the period 2005-2016 as a whole or after 2010. There is therefore no sign of the relatively low levels of expenditure on healthcare relative to GDP in many of the Central and Eastern EU Member States converging towards levels in Member States with much higher GDP per head. Indeed, in ten of these countries, healthcare spending declined as a share of GDP over this period.

In four countries (Czechia, Italy, Malta and Sweden), spending on healthcare remained unchanged in relation to GDP over the period 2005-2016, though the implications for real expenditure vary markedly because of the different developments in GDP (and the price index for healthcare relative to the GDP deflator). In Italy, therefore, spending in real terms declined marginally, in Czechia and Sweden, it increased by around 2% a year and in Malta by just over 4% a year (Figure 37).

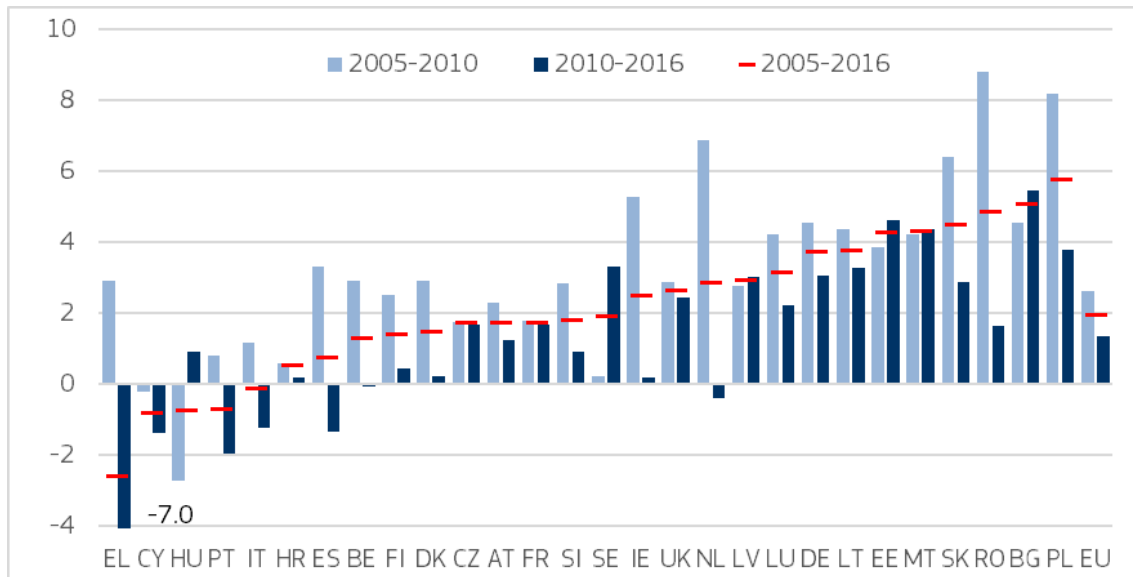
Expenditure on healthcare in real terms

As implied by the reduction in spending relative to GDP, expenditure in real terms on healthcare in Greece declined by almost 3% a year between 2005 and 2016, the reduction being concentrated wholly in the years after 2010, when it averaged 7% a year, signifying a decline of some 35% over these six years. This is a consequence of the Economic Adjustment Programmes implemented after 2010, when constraints were imposed on healthcare spending and both in-patient and out-patient care were cut substantially (by 45% and 51%, respectively in real terms between 2009 and 2014).

In Cyprus, Hungary and Portugal, real expenditure on healthcare also declined over the period as a whole, though by much less – by just under 1% a year – the decline occurring mainly or wholly after 2010 in Cyprus and Portugal and before 2010 in Hungary, since when spending has risen slightly in real terms. At the opposite extreme, real expenditure grew by almost 6% a year in Poland between 2005 and 2016 and by around 5% a year in Bulgaria and Romania. Although, therefore, expenditure on healthcare in Romania increased only slightly relative to GDP over the period, it nevertheless grew by substantially more than the EU average in real terms, though not after 2010.

In addition to Greece, Cyprus and Portugal, expenditure also declined in real terms between 2010 and 2016 in Italy, Spain, the Netherlands and marginally in Belgium, while in Croatia, Finland, Denmark and Ireland, the increase was very small (less than 0.5% a year). In most other countries, the increase was less than over the previous five years, so that, as in the case of expenditure on old-age benefits, the overall picture is one of restraint on healthcare spending.

Figure 37 Changes in expenditure on healthcare and sickness benefits in real terms, 2005-2016 (annual average % change)



Note: Countries are ordered in terms of the change in expenditure on healthcare and sickness benefits over 2005-2016. For HR, the change for 2005-2010 relates to 2008-2010 and for 2005-2016 to 2008-2016. Source: Eurostat ESSPROS Database.

Similarly to expenditure on old-age benefits, the restraint in healthcare (and sickness benefit) spending over the period 2010-2016, was a result of deliberate government policy. This is confirmed by a recent OECD study, which also points out that a slowdown in expenditure is evident in the early to mid-2000s, well before the economic and financial crisis. The expenditure deceleration was initially gradual in the early 2000s and then intensified around the time of the economic and fiscal crisis (Lorenzoni *et al.* 2018). The slowdown reflects a number of reforms introduced before and during the period examined here. Measures to restrain expenditure included control of pharmaceutical expenditure, use of generics and changes to co-payment regimes, and the introduction of a number of cost-containment measures in hospital. (Lorenzoni *et al.* 2018, Baeten *et al.* 2018).

The most significant reforms took the form of cost-containment in respect of both healthcare and sickness benefits during the period 2009-2013 (e.g. in AT, BG, CY, CZ, DK, EE, IE, EL, ES, FI, FR, IT, LT, LV, MT, PL, PT, SI, SK, SE). Cost-containment policies include reducing in-patient care and a general reduction in financing of hospitals (e.g. in BG, EL, ES, FR, IE, PT, UK), increasing out-of-pocket payments (BG, CY, FR, NL) and reducing the number of reimbursed pharmaceuticals (e.g. BG, EL, ES, LV, PT). For instance, according to the three Memoranda of Understanding signed by Greece in relation to the Economic Adjustment Programme implemented after 2010, the country was obliged to keep public health expenditure below 6% of GDP and public pharmaceutical expenditure below 1% of GDP. Importantly, in several countries, the restraint on expenditure during the crisis period came partly from a tightening of eligibility conditions and reductions in the period of receipt of sickness benefits (e.g. CZ, LV, LT). Country-specific examples of significant reforms are described in Box 8.

Since 2014-2015, however, there have been several reforms (not captured, or at least only partly in the statistics presented in this report) aimed at improving access to healthcare and at a partial reversal of previous reforms (Baeten *et al.* 2018).

Box 8 Examples of changing healthcare policies

Austria

For a long time, rising costs for in-patient hospital care (amounting to around 45% of all expenditure on healthcare and sickness benefits in 2016) were one of the main drivers of rising health/sickness expenditure. According to one of the declared goals of the 2012/2013 health reform, healthcare spending should not grow more quickly than GDP, i.e. the expenditure share in GDP should not increase, and a number of cost-containment measures (in a first instance aimed at optimising governance and planning) were decided on for this purpose.

Germany

Demographic change and medical progress were the main drivers of expenditure growth in relation to GDP and in real terms 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.

Ireland

The limited growth in healthcare expenditure in real terms in Ireland is due to several factors. Only about 40% (2016) of the population is entitled to a full range of all publicly provided healthcare. Accordingly, access to much of primary care, pharmaceuticals and a range of other health provisions is means-tested, which of itself tends to limit demand, and the decline in incomes during the economic recession increased the number of people having to access healthcare in this way. The healthcare system after 2008 was subject to reductions in expenditure as part of fiscal consolidation measures, leading to a decline in provision. The most important conduit through which this is evident is at staffing levels; the number of people employed increasing by 9% at the peak of the “boom”, from 2005 to 2007 and declining by 12% from 2008 to 2015.

Portugal

The reduction in expenditure on healthcare/ and sickness benefits (both as a share of GDP and in real terms) after 2010 is closely related to the measures implemented as a response to the economic and financial crisis, mainly taking the form of a reduction in both staffing levels and wages and salaries and staff in the healthcare sector.

Spain

Between 2008 and 2013, there were several cost-containment policies implemented, including direct cuts to healthcare provision, with expenditure on pharmaceuticals being reduced and financing from the Central State to the Regions (Autonomous Communities being cut back). The main results of the budget cuts were reductions in staff, the closure of some services, a lessening in the number of hours for surgical operations and a growing outsourcing of services to the private sector. In 2012, a co-payment system was established, and between 2012 and 2018 the right of universal access was abolished.

Latvia

During the recession years, 2008-2010, Latvia, along with Lithuania, the largest reduction in expenditure on healthcare in real terms in the EU (of around 15%), when the funding allocated to healthcare in relation to GDP was already among the lowest. In addition, between 2009 and 2014, the statutory maximum period of sickness benefit was reduced from 52 to 26 weeks and a ceiling was introduced on the amount of benefit payable. After 2012, expenditure on sickness and health started to increase again, and a new Healthcare Financing Law (2017) stipulates that by 2020, financing of healthcare should reach 4% of GDP (from 3.7% in 2016). The 24% increase in the healthcare budget for 2018 was the largest increase since the restoration of independence of Latvia in 1991.

Source: ESPN Country reports (2019)

An important point to note here is the fact that healthcare systems (together with the social assistance sector) in many countries include the provision of long-term care. Only Germany, Luxembourg and the Belgian region of Flanders have implemented a specific LTC scheme financed by social contributions. LTC expenditure has tended to increase in importance over recent years and is set to continue to do so in the future, perhaps at an accelerating rate, because of population ageing.⁴⁷

The German ESPN expert indicates that the effects of demographic change were even stronger than in respect of healthcare and sickness insurance, the number of benefit recipients increasing by 41% between 2005 and 2016, from 1.95 million to 2.75 million. In addition, legislation adopted in 2015 introduced a new definition of “in need of care”, leading to a significant growth in expenditure from 2017 on, as it considerably increased the number of benefit recipients. Benefits from long-term care insurance have gradually been raised since the late 2000s, increasing the number of people qualifying for long-term care benefits, particularly those suffering from dementia. However due to policy changes, namely rising contribution rates, in 2016, income from contributions exceeded expenditure by 3%; the reserves totalling €9.4 billion⁴⁸. Similarly, in Luxembourg, total expenditure has risen over the years. However, while in 2010 and 2011 the scheme was in substantial deficit, between 2012 and 2015 there was a small surplus or revenue equalling expenditure and in 2016 a substantial surplus was reported (Pacolet and De Wispelaere 2018). Linked to this, it should be noted that since 2013 the state has intervened in the financing of the scheme (making a transfer of 40% of expenditure in 2017, or €262 million).

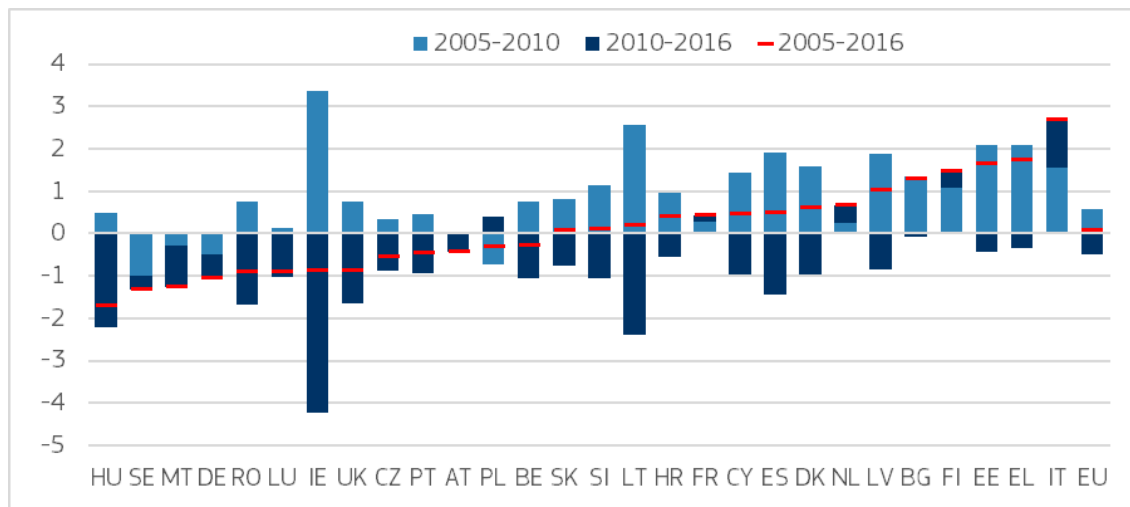
3.1.5 Changes in expenditure on “other” benefits

Expenditure on “other” benefits – family, disability, survivors’, unemployment, housing and social exclusion benefits – increased relative to GDP in all countries, apart from Sweden, Malta, Germany and Poland, between 2005 and 2010. Over this period, social protection systems were expanded, benefit levels were raised in many cases and unemployment rose during the recession years, so increasing the number of people in need of income support (Figure 38). Over the subsequent six years, 2010-2016, spending on “other” benefits increased in relation to GDP in just five EU countries (Poland, France, the Netherlands, Finland and, most especially, Italy). In Italy, it increased by 1 p.p. relative to GDP as spending on family and unemployment benefits expanded. In the other 23 countries, expenditure declined relative to GDP – if only marginally in Bulgaria – the reduction amounting to over 2 p.p. in Hungary and Lithuania, as well as in Ireland, and by over 1 p.p. in the UK, Spain and Romania.

⁴⁷ An estimate is that expenditure on long-term care in the EU will increase from an average of 1.6% of GDP in 2016 to 2.7% in 2070. See European Commission (2018), The 2018 Ageing Report, Economic and budgetary projections for the 28 EU Member States (2016-2070), Directorate-General for Economic and Financial Affairs.

⁴⁸ Gerlinger, Th. 2018

Figure 38 Changes in expenditure on “other” benefits as a % of GDP, 2005-2016 (percentage point change)



Note: Countries are ordered in terms of the change in expenditure on other benefits relative to GDP over 2005-2016. For HR, the change for 2005-2010 relates to 2008-2010 and for 2005-2016 to 2008-2016.

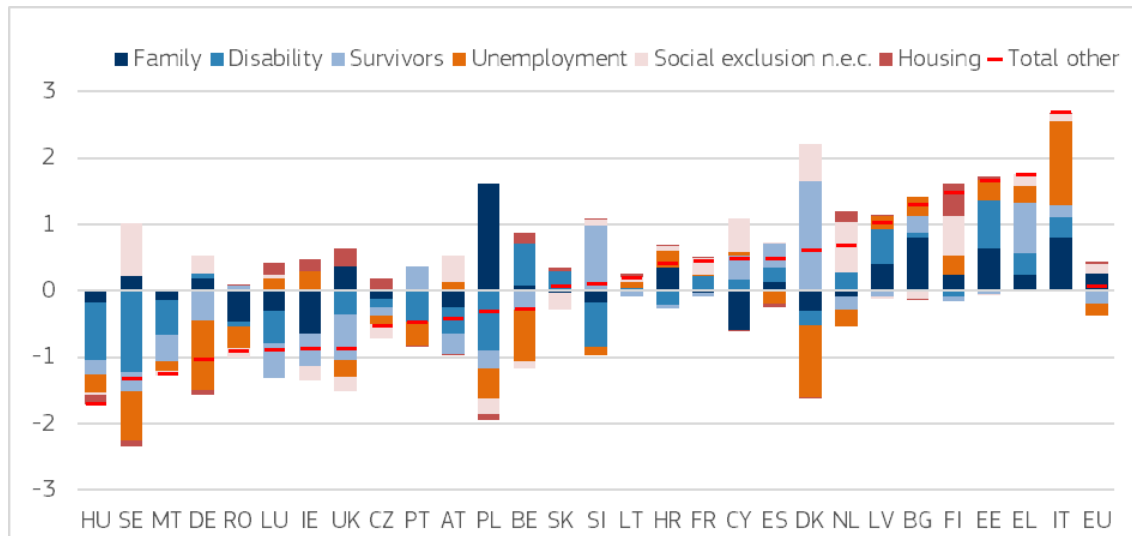
Source: Eurostat ESSPROS Database.

Nevertheless, despite the widespread fall in expenditure on other benefits as a share of GDP over this period, spending was still higher relative to GDP in 2016 than 11 years earlier in 15 of the 28 EU Member States, although only marginally in Slovenia, Slovakia and Lithuania.

In real terms, expenditure on “other” benefits increased in all Member States over the 2005-2016 period except Croatia, where it fell by 2% (in this case between 2008 and 2016,) Portugal, where it fell by 5%, and most notably in Hungary, where it declined by 16%. Over the six years 2010-2016, however, increased over this period in only half the 28 EU Member States – the five countries mentioned above where expenditure rose relative to GDP plus Austria, Bulgaria, Denmark, Estonia, Germany, Estonia, Latvia, Malta and Sweden. The increase amounted to 2-3% a year in Bulgaria, Estonia, Italy and Malta and over 4% a year in Poland. There was a reduction in real terms of 3-4% a year in Cyprus, Greece, Hungary, Ireland, Lithuania, Romania and Spain and just under 3% a year in Portugal. This contrasts with the experience over the preceding five years when expenditure increased in real terms in all countries except Sweden where it fell very slightly, though the increase was marginal in Germany.

Within the group of “other” benefits, the pattern of change across countries was far from uniform over both periods, in the sense that in some countries, spending, for example, on disability benefits was reduced, in others, increased and similarly for the other kinds of benefit. While there is some tendency for expenditure on housing and social exclusion benefits (i.e. minimum income guarantee or social assistance, but also benefits not included under the other functions) to increase relative to GDP between 2010 and 2016 (it rose in 17 of the EU Member States in the case for both benefits), there were still a significant number of countries where the opposite occurred. There is also some tendency, though again by no means universal, for expenditure on survivors’ benefits to decline relative to GDP over both the period before 2010 and the period after, while for the other benefits (family, disability and unemployment) spending increased relative to GDP in around half the Member States and declined in the other half in both periods, as well as over the period as a whole (Figure 39).

Figure 39 **Changes in expenditure relative to GDP on “other” benefits by function, 2005-2016 (percentage point change)**



Note: Countries ordered by the overall change in expenditure on “other” benefits. Changes in HR relate to 2008-2016
 Source: Eurostat, ESSPROS Database

Family benefits

Spending on family benefits relative to GDP, as noted above, increased in half the EU Member States and declined in the other half – i.e. countries are split between those in which expenditure on family benefits was increased relative to GDP and those where it was reduced.

Some countries have been “recalibrating” their welfare expenditure through “updating” their social protection system in order to respond to new societal developments (Pierson 2001). As an example, Poland and Italy substantially increased expenditure on family benefits as a result of a policy of expanding support for families and children. In 2008, Poland (where expenditure on family benefits increased by most in the EU over the 2005-2016 period, by around 2 p.p. relative to GDP and 14% in real terms) extended maternity benefits and increased childcare funding. The 2014 Stability Law in Poland also introduced a new allowance of EUR 80 a month for all new-born (or adopted) children up to the age of three. In 2016 the new “Family 500+” benefits were introduced for second and third children. In Italy, there has been a general expansion in childcare provisions, financed by government revenues (see also Section 2.4).

By contrast, in Czechia, expenditure on family-related benefits was reduced as part of the 2008 austerity package, which restricted access to child benefits and reduced the birth grant as well as supplementary social benefits, which were later abolished⁴⁹. In Ireland, the amount of benefit was also reduced (expenditure was 20%, lower in real terms in 2016 than in 2010), while in the Netherlands, childcare allowances were cut back and in a number of countries (such as Austria⁵⁰), expenditure was reduced by failing to uprate family benefits in line with inflation.

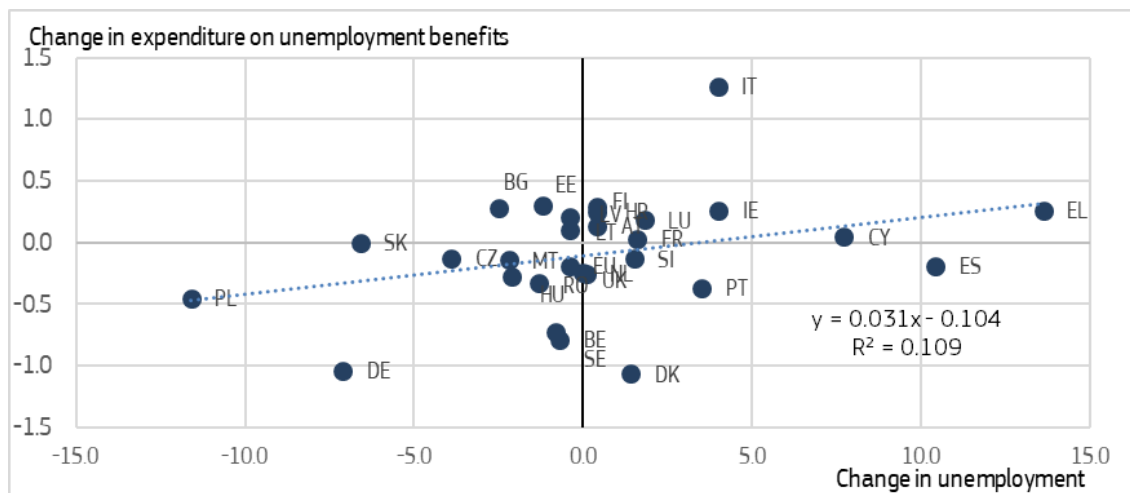
⁴⁹ Expenditure on family benefits declined by over 10% in real terms between 2008 and 2016.

⁵⁰ Expenditure declined by 5% in real terms between 2010 and 2016.

Unemployment benefits

Expenditure on unemployment benefits, as noted above, increased as a share of total benefits in the recession years 2008-2010 in all countries, except Cyprus. Relative to GDP, expenditure on unemployment increased in all countries over this period, though the increase was marginal in Cyprus and Malta. In the years before 2008, however, unemployment was generally falling across the EU, and in the second half of the period 2010-2016, it declined in almost all countries (France, Luxembourg, Austria and Finland are exceptions, in all of which it increased slightly). Over the period 2005-2016, unemployment increased in around half the countries (13 of the 28) and declined in the other half. Expenditure on unemployment also increased in half the countries (14 of the 28) and declined in the other half, but not in all cases in the same countries in which expenditure increased or declined (Figure 40).

Figure 40 Change in unemployment rates and change in expenditure on unemployment benefits, 2005-2016 (percentage point change)



Note: Changes for HR relate to 2008-2016

Source: Eurostat, ESSPROS Database

Although, therefore, there is some relationship between the change in expenditure and the change in unemployment over the period, it is not especially close. In particular, there are a number of countries in which unemployment increased and expenditure declined relative to GDP, most notably in Spain and Portugal, while in Greece and Cyprus, unemployment increased substantially but expenditure on benefits went up only slightly relative to GDP. Moreover, in Denmark, expenditure on benefits declined markedly relative to GDP despite a slight increase in unemployment, and there were also significant reductions in expenditure in Belgium and Sweden where unemployment fell only a little. In Italy, on the other hand, expenditure rose considerably more than might have been expected given the increase in unemployment (see Box 9).

Box 9 Reasons for increasing unemployment expenditure in Italy (2005-2016)

In Italy, spending on unemployment benefits relative to GDP over the period 2005-2016 increased by more than in any other Member State, as a result of both economic factors and successive policy reforms in 2007, 2012 and 2016. These extended the coverage of the unemployment benefit system to all employees, including apprentices, and to some groups of dependent self-employed, as well as relaxing the seniority eligibility requirements for acceding to benefits. Benefits were also made (generally) more generous (the replacement rate for the general unemployment benefit rose from 50% to 75% and the duration of payment was lengthened). However, some more generous schemes for particular groups of workers (mostly those working in large manufacturing firms) have been abolished, or the eligibility conditions have been made more restrictive.

Source: Italian ESPN Country report (2019)

As illustrated by the Italian example, the limited relationship between changes in unemployment and expenditure on unemployment benefits is explicable in terms of a number of factors. First, the coverage of benefits may change over time, with entitlement to benefit being either extended or restricted. Secondly, the benefit payable may be increased or reduced. Thirdly, and perhaps of most general importance, the composition of the unemployed may change, in particular, as the duration of unemployment changes, so that the proportion of people who have been unemployed for a length of time that exceeds their entitlement to benefit increases or declines. The tendency, therefore, is for the relative number of the unemployed no longer eligible for unemployment benefit at first to decline as unemployment rises and then to increase as unemployment remains at a high level. As unemployment falls, the relative number not in receipt of benefit may increase if those moving into employment are those who have become unemployed most recently rather than those who have been unemployed the longest. The implication is that the proportion of the unemployed who are in receipt of benefit will tend to vary between countries and over time depending on labour market dynamics, the rate at which the unemployed are able to find jobs and the duration of entitlement to unemployment benefit.

The relationship is further complicated by the fact that in some EU Member States, the unemployed become eligible for unemployment assistance when their entitlement to unemployment insurance benefit is exhausted, while in other Member States, unemployment assistance does not exist as such and the unemployed concerned have to rely on social assistance or minimum resource guarantee. While the former should be included in expenditure on unemployment benefits, the latter will tend not to be so if there is no distinct way of separating the unemployed receiving assistance from others being supported.

Social exclusion benefits

As noted above, expenditure on social exclusion benefits increased relative to GDP in the majority of countries over the period 2005-2016. Two of the countries in which the expenditure share expanded by most were Austria and the Netherlands, in both of which spending on these benefits went up by almost 1 p.p. relative to GDP. The increase in Austria was especially large in 2015 and 2016, amounting to 24% and 37% in real terms, respectively. This was the result primarily of a substantial influx of asylum seekers and refugees, though over the longer term, there has been increased take-up of benefits, which are largely subject to means-testing, and which is linked to growing differentiation of opportunities and risks on the labour market.

In the Netherlands, the number of people receiving social assistance benefits increased by almost 50% between 2008 and 2017. In the first part of the period, the rise was a result of the economic crisis, and towards the end, it was largely a consequence, as in Austria, of the support provided to a growing number of refugees and asylum seekers.

In a number of countries, however, expenditure on social exclusion benefits diminished over the period. In Czechia, for example, the reduction occurred before 2010 largely as a result of the 2006 reform to social assistance, which introduced several restrictions on the entitlement to claim benefit. In particular, young people living with their parents came to be considered as being part of the same household and so no longer eligible for support in their own right, while greater stringency was applied generally to assessing claims for benefit.

3.1.6 Social protection expenditure by broad function in EU Candidate countries and potential Candidates

Expenditure on old-age benefits

As in the EU countries, old-age benefits⁵¹ account for the biggest share of total expenditure on social protection. The ranking of pension expenditure as a share of total social protection expenditure is topped by Albania, where it accounted for 68% in 2016, followed by North Macedonia (60% in 2018), Montenegro (57% in 2017), Turkey (48.6% in 2015) and RS (46.2% in 2016).

Old-age pension expenditure as a share of overall social protection expenditure increased during the period 2005-2016 in all EU candidate countries and potential candidates. This increase was greatest in Albania (5 p.p.), followed by an increase of around 2 p.p. in Bosnia and Herzegovina, Kosovo* and Turkey, and by a slight increase in Montenegro. However, in Montenegro expenditure in absolute terms has doubled over the period under scrutiny.

After 2010, spending on old-age pensions fell relative to GDP in Serbia and Turkey. This is partly due to GDP fluctuations, but also to reforms, in particular in Serbia, where benefits in payment were cut during the crisis.

The reasons behind the increase in pension expenditure are similar to those in the EU countries: population ageing and an increase in the number of beneficiaries. One specific issue affecting some of these countries has been the payment of war veteran pensions. In Kosovo*, the pension system has been gradually built up over these years and the number of beneficiaries has been increasing.

Expenditure on Healthcare

Healthcare expenditure, including spending on sickness benefits, varies between the EU candidate countries and potential candidates. As a share of total expenditure, it accounts for 29% in Turkey (2015), 245% in Serbia (2016) and 28% in Montenegro (2017).

⁵¹ Statistics on old-age benefit expenditure are not fully comparable. In some countries, pension scheme data also include disability benefits; this is not the case for the calculations for Serbia and Turkey, which are based on ESSPROS data.

During the period examined, overall health expenditure fell in three countries (ME, RS, TR) and increased only slightly in the other four (AL, BA, MK, XK*).

In Serbia and Turkey, healthcare expenditure declined relative to GDP over the period 2010-2016. In Serbia it fell by 1 p.p. relative to GDP between 2008 and 2016, which, given the very slow growth of GDP, implies that expenditure declined in real terms. In these two countries, therefore, spending on healthcare (together with sickness benefits) in 2016 was only around 5% of GDP, considerably below the EU average of 8%.

Serbia experienced one of the largest reductions in spending during the period between 2010 and 2014, when expenditure was around 1% higher than receipts; in these years the differences were covered by transfers from the undisbursed funds from the previous year. In 2008, health/sickness expenditure accounted for 6% of GDP, while over the period considered this proportion gradually declined to 5% in 2016. In real terms, expenditure declined by 3% a year on average. In Albania, the increase in expenditure relates only to sickness benefits payable from the social security fund and disability benefits payable from the general budget. Expenditure from the Health insurance fund, however, grew continuously between 2010 and 2016 (by 38% overall), or from 2.1% of GDP in 2010 to 2.4% of GDP in 2016.

In Kosovo*, legislation introducing mandatory health insurance was passed in 2014, but has not yet been implemented. In addition to government resources, international donor funding for healthcare remained significant over the period (e.g. 0.7% of GDP in 2005). Only 6% of Kosovars seem to have private health insurance. Meanwhile, as the World Bank emphasises, private out-of-pocket payments for health services (including user fees) and drugs are much more significant and could amount to up to 40% of healthcare expenditure. In Bosnia and Herzegovina, private expenditure is estimated at 2% of GDP in the Federation of Bosnia and Herzegovina (FBiH) and 3% in Republika Srpska (RS), the two federations that compose the country.

Expenditure on “other schemes”

Spending on other schemes is relatively low in these countries. ESSPROS data show that these schemes accounted for around 22% of social protection spending in Turkey, and 28% in Serbia. For the rest of the countries, overall data are not available (only per function: e.g. social assistance, unemployment etc.). Important changes occurred in Turkey with regard to the disability programme: the share of expenditure on disability almost doubled from 2.1% to 3.7% of total social protection expenditure, as benefits and eligibility conditions were significantly improved and the number of beneficiaries increased. By contrast, in Serbia – where disability pensions accounted for the largest proportion of expenditure on disability benefits – from 2008 to 2016 the number of recipients was reduced by 20%, due to better monitoring of compliance with eligibility conditions. There were similar changes in Albania, where the major non-contributory social protection programmes with extensive coverage include the means-tested poverty alleviation programme (social assistance) and disability benefits. The relative balance of the two programmes has shifted significantly in favour of disability benefit spending, which is three times higher than spending on poverty. The means-tested social assistance programme has been reduced considerably: it amounted to only 0.025% of GDP in 2016, while spending on the disability programme amounted to 1% of GDP in 2018.

In Montenegro, the bulk of “other” expenditure is related to the social protection of families and children (on average 80% of other expenditure). There was a significant increase in this category

in 2016 following the adoption of a law on benefits for mothers with three or more children, which was then abandoned in 2018. Similarly, the biggest increase in spending on family benefits occurred in Serbia, where, in 2016, its share of total expenditure increased by 2.4 p.p. compared to 2008, due to both demographic trends and the increased generosity of some of the benefits. An opposite tendency occurred in North Macedonia, where spending on child allowances was reduced over the same period, both in terms of coverage and of budget (from 0.09% of GDP to less than 0.02%).

3.2 Breakdown of social protection financing by function

As indicated above, most expenditure on social protection in Europe goes on old-age benefits and healthcare. The way in which spending on these two functions develops over time is, therefore, a major determinant of both the need for financing and the way that the composition of financing changes over time. The financing of the two, and the changes in the breakdown of financing between social contributions, taxation and other receipts over the period since 2005, are examined below in this section. The changes for other benefits are then considered though more briefly. This analysis, it should be noted, is based on estimates derived from the data for social protection schemes published by Eurostat which collects the information from the different countries (see Box 10).

Box 10 Estimating the division of financing for different social protection functions from the ESSPROS data by scheme⁵²

The ESSPROS data published by Eurostat are based on information provided by countries on the social protection schemes which are in place. The information by scheme is also published by Eurostat⁵³. This shows the total amount of expenditure for individual schemes and the division of funding between the main sources of financing for each scheme. Since many schemes cover more than one function (old-age and survivors' and/or disability, for example), it is not straight-forward to derive the division of financing for each function. In particular, an assumption needs to be made about how the functions which are covered by a given scheme are financed, whether they are all funded in the same way and so the division between the main sources is reflected in the division for each particular scheme, or differently. In practice, there are two alternative methods of estimating the overall mix of funding sources for the different functions:

1. to assume that the division of funding for a particular scheme applies to all the functions covered by that scheme and to aggregate across schemes according to the share of expenditure going to each function (e.g. if 25% of expenditure in Scheme 1 goes on disability benefits and 60% in Scheme 2, 25% of the amount of financing coming from social contributions, general taxation and so on for Scheme 1 is added to 60% of the amounts coming from these different sources for Scheme 2 to obtain an overall estimate of the division of funding for disability benefits);
2. to assume that the division of financing for any function is reflected in the division in schemes in which the function concerned is the main one covered, or, in other words, to assign a scheme to a given social protection function where over 50% of the total expenditure of the scheme is allocated to the function in question. (In the above example, the division of financing in Scheme 2 would be taken to indicate the division for survivors' benefits and Scheme 1 would be ignored).

The first method of estimation corresponds to Method B in the original exercise to estimate the division of financing by social protection function in the joint Social Protection Committee-European Commission report⁵⁴, the second corresponds to Method A, which was the one mainly used in the report. The choice is therefore between a method (B) which assumes that the division of funding for any scheme applies to all the functions covered by the scheme and a method (A) which assumes that the division of funding for any function is reflected in the division in schemes in which it is the main function covered or, at least, in which it accounts for a significant amount of expenditure and that the division in other schemes in which it is covered can be ignored. Both are relatively strong assumptions.

Method B is favoured here largely because it increases the number of schemes covered for the smaller benefits (i.e. those involving the smallest amount of spending). Indeed, for some functions in some countries, there is no scheme in which the function accounts for over 50% of expenditure and in some cases, none which accounts for over 33% of expenditure, which was the alternative threshold adopted in the report. In addition, there are other cases where there is only one scheme in which spending on a function is above either of the two thresholds and this often accounts for a very small share of total expenditure (survivors' benefits being a case in point, but also in some countries family benefits).

⁵² The estimates of the financing of social protection by function are calculated using the same method as adopted in *Social protection systems in the EU: financing arrangements and the effectiveness and efficiency of resource allocation*, a report jointly prepared by the Social Protection Committee and the European Commission Services, Luxembourg: Publications Office of the European Union, 2015.
(<https://ec.europa.eu/social/main.jsp?catId=738&langId=en&pubId=7743&visible=0>).

⁵³ Available at <https://ec.europa.eu/eurostat/web/social-protection/data/data-by-scheme>

⁵⁴ Op.cit.

For the main functions examined here – old-age benefits and healthcare – Method B and Method A give very similar results for most countries as regards the change on the division of funding over the period 2005-2015, so that the choice of one rather than the other has a relatively minor effect on the results. For the other functions, there are significant differences for many countries because of the reduced number of schemes covered using Method A rather than Method B.

Data by scheme, however, are not available from Eurostat for all countries or for all years since 2005. No data are available for Denmark, Ireland, France, Poland, Portugal, Slovenia or Turkey, and there are no data before 2007 for Estonia and the UK, before 2008 for Bulgaria and Croatia, before 2010 for Spain or before 2012 for Luxembourg. For all countries, data at present go up only to 2015.

There are, however, two further general issues which need to be recognised. The first is that the financing which comes from “other receipts” in the individual schemes, i.e. from sources other than social contributions and General Government revenue, consists partly of transfers from other schemes. These, of course, themselves involve a mix of funding sources, which cannot be identified in the data and which, accordingly, cannot be taken into account in the estimates made. In the large majority of cases, such transfers are small – less than 5% of the total funding estimated for the different functions – and, therefore, have little effect on the results, but in some cases, they are significant. This is especially the case for Belgium, Italy, Slovakia and, to a lesser extent, Austria, where the results on breakdown of funding for some of the different functions could be affected by this and should, accordingly, be treated with some caution. For Belgium, transfers from other schemes are so large that the results of the analysis are not meaningful and so Belgium is not included among the countries covered by the analysis.

The second, related, issue, is that the total financing, or receipts, for the various schemes aggregated together in individual countries, as recorded in the Eurostat database, is greater than total expenditure for all countries in 2015 (and for nearly all countries for every year before this). This can simply reflect funding being set aside to cover future expenditure, but it also reflects an element of double counting, in that transfers between schemes are recorded both in the scheme from which they originate and in the scheme they are diverted to,⁵⁵ In most countries, the difference between total receipts and expenditure aggregated from the data for individual schemes is small, less than 10% of total receipts in 2015, and so unlikely to affect the results significantly. In Italy, Austria, Slovakia Luxembourg, the Netherlands and Sweden, the first three of which are countries where there are significant transfers between schemes for some functions, as noted above, it is around 15% or above (and in Belgium, as much as 40%).

A third more specific issue is that for Romania, as noted elsewhere, there was a change in 2016 in the allocation of financing between social contributions and general government funding from taxation, with a substantial shift from the latter to the former. Since the data by scheme, however, only go up to 2015, this shift is not covered and so the published data give a misleading indication of the financing mix. In the above analysis of shifts in the sources of financing at aggregate level, the assumption has been made that the changes over the period 2005-2015 shown by the pre-adjusted, or pre-corrected data, reflect the changes shown by the corrected data. While this assumption may be defensible for the aggregated data, it is more questionable for the data by scheme and the estimates of financing by function which are derived from them. The potential margin of error from adopting this assumption is, therefore, considered to be too large for the estimates produced to be at all reliable. Consequently, Romania is also excluded from the analysis.

Source: authors' own elaboration.

⁵⁵ This element of double-counting, it should be noted, is explicitly allowed for in the aggregation of funding when calculating the overall receipts for social protection in the ESSPROS Database, since the funding being transferred to other schemes can be identified in the expenditure data and, accordingly, netted off, but the possibility of “netting off” applies only to overall funding and not to funding by function.

3.2.1 The financing mix for old-age benefits 2005-2015

The financing mix for old-age benefits in 2015

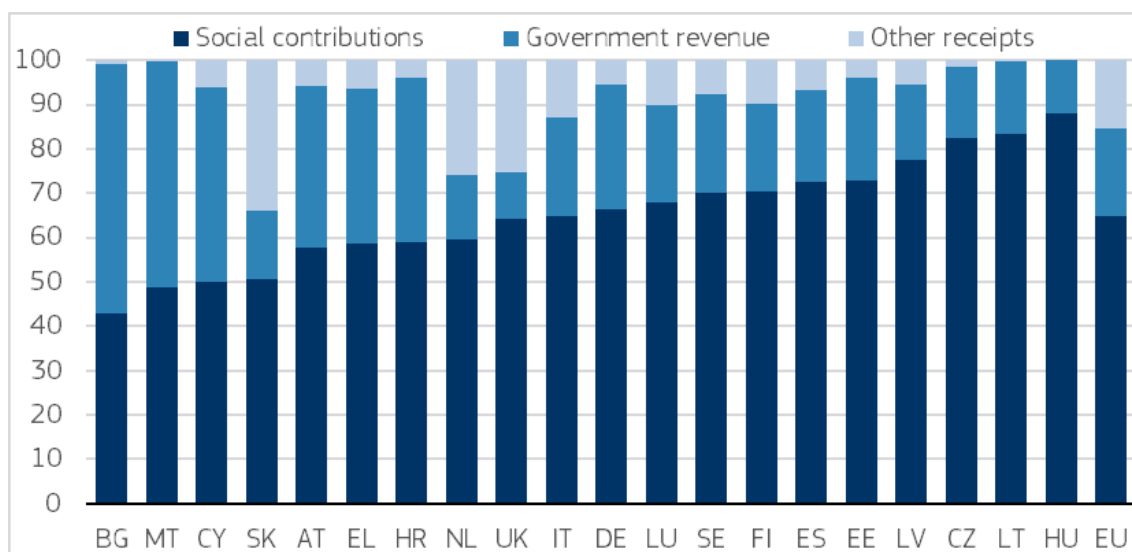
Old-age benefits (retirement pensions and benefits in kind for those in retirement) are largely financed by social contributions, much more so than other social benefits.

In 2015, the latest year for which the ESSPROS data by scheme are available, social contributions accounted for 65%, on average, of the financing of old-age pensions in the EU, while government revenue from taxation accounted for only 20%, the rest coming from interest on investment and other receipts (Figure 41).

In all of the 28 Member States, apart from Bulgaria and Malta, half or more of financing came from social contributions, and in Czechia, Lithuania and Hungary, the figure was over 80%. Government revenue, conversely, accounted for only 12% of total financing in Hungary and only 11% in the UK, as opposed to over 40% in Cyprus and over 50% in both Malta and Bulgaria.

In three countries – the UK, the Netherlands and Slovakia – over 25% of financing came from “other receipts”. In Slovakia and Italy, transfers from other schemes accounted for most of such receipts (over 30% of total financing). In Slovakia, this is mainly due to the introduction of a statutory funded pension scheme in 2005, which led to the redirection of a share of the contributions from the pay-as-you-go (PAYG) scheme to this scheme. This created a deficit in the PAYG scheme, which in turn was covered by transfers from other schemes and general government revenue. In the UK and the Netherlands, “other receipts” mostly came from interest income (in the Netherlands, this reflects the relatively large size of capital-funded occupational pensions). Accordingly, income from financial assets is an important source of revenue for these schemes. In all countries apart from Greece, the government contribution to financing comes from general taxation. In Greece in 2015, a small part was raised from earmarked taxes. The relative amount, however, declined over the period 2010-2015 (from 4.6% of total financing for old-age benefits to 2.5%), having remained broadly unchanged over the preceding five years.

Figure 41 Division of financing of old-age benefits by main source, 2015 (% of total financing of old-age benefits)



Note: Countries are ordered in terms of the share of social contributions in financing.

Source: Eurostat, ESSPROS data by scheme and authors' calculations

Changes in the mix of financing of old-age benefits

2005-2010

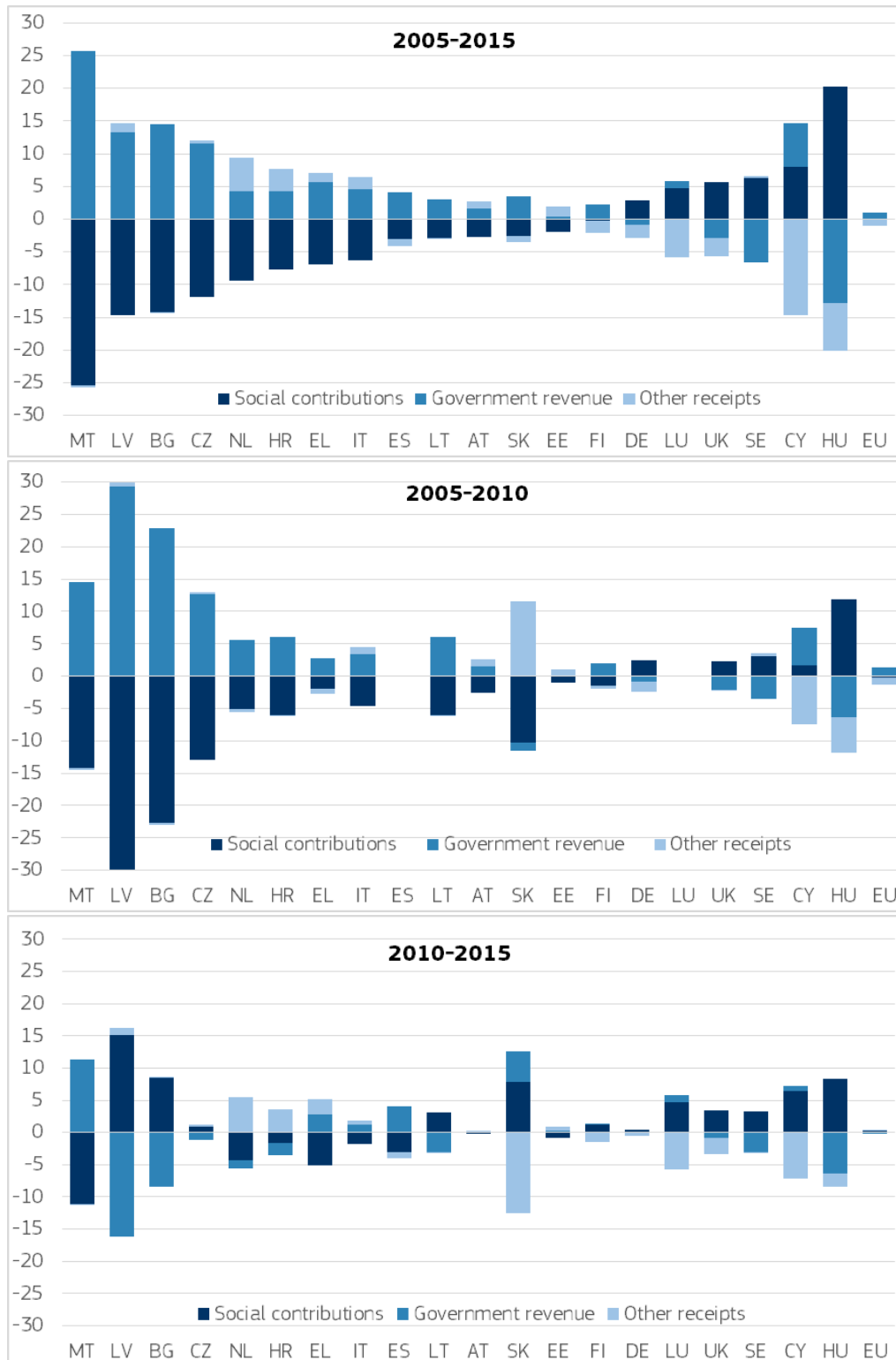
Over the period 2005-2010, there was a widespread shift from social contributions to general government financing for old-age benefits (Figure 42). This took place mainly in the recession years 2008-2010, though there was also a shift in this direction in the three years before the recession in most countries for which data are available. Meanwhile, the share from general government revenue rose in all Member States apart from five: Germany, Hungary, Slovakia, Sweden and the UK, three of which (Germany, Sweden and the UK), together with Cyprus, were the only countries in which social contributions increased over this period.

The changes over this period, which includes the recession years, can be attributed to a range of factors. The most significant of these are, first, the economic downturn and, secondly, reforms affecting the design of the old-age pension schemes. This section focuses mostly on countries where significant changes, visible in the data, occurred. It should also be noted that some of the developments may be attributable to reforms enacted before 2005 which are not examined in this report. For instance, the German ESPN team indicates that, despite the economic challenges, the financing mix in the country remained more or less unchanged, and in general, most changes in financing – especially those affecting the public scheme – took place before 2005 (see also Section 1.3.1).

As hinted by the European Commission and SPC Joint report on financing social protection (2015), the economic downturn played a significant role in reducing the share of social contributions for pensions in several countries, as employment declined and with it the contribution base (e.g. in AT, BG, CZ, IT, LV, LT, NL, SK). The share of contributions also fell as a result of wage freezes in several cases while spending on pensions from pay-as-you-go scheme remained the same or increased.

The 2008-2009 recession was a major event in the ten-year period being examined and partly explains the shift in funding from social contributions to general taxation. However, as already highlighted, similar developments took place in many countries before 2008. Many reforms are country-specific (see Box 11), but there was a widespread trend over the period before 2010 towards reducing social contributions on labour and, especially, those paid by employers. Figure 27 shows that between 2005 and 2010 there was an overall shift from employers' to employees' contributions as a means of financing old-age benefits.

Figure 42 Change in the division of financing of old-age benefits by main source, 2005-2015 (percentage point change)



Note: The chart shows the change in the % division of financing between the three broad sources. Countries are ordered in terms of the change in the share of financing from social contributions over the period 2005-2015.

No data for ES and LU before 2010. For EE and UK, data for 2005-2010 relate to 2007-2010 and for 2005-2015 to 2007-2015. For BG and HR, data for 2005-2010- relate to 2008-2010 and for 2005-2015 to 2008-2015. For LU, data for 2010-2015 relate to 2012-2015 and for ES, data for 2005-2015 relate to 2010-2015.

Source Eurostat, ESSPROS data for schemes and authors' calculations

2010-2015

Over the following five years, from 2010-2015, there was some reversal of the previous trend, i.e. some shift of funding in the other direction, from general government to social contributions, though this was less widespread across countries. The share of financing from social contributions increased in 12 (BG, CY, CZ, DE, FI, HU, LT, LU, LV, SE, SK, UK) of the 20 Member States for which data are available – most especially in Cyprus, Slovakia, Bulgaria and Latvia, in all of which the increase was over 6 p.p. It fell by more than 2 p.p. in only six countries, most markedly in Greece (by 5 p.p.)(Figure 42).

The increase in the social contribution funding share, however, was not in all cases accompanied by a significant reduction in the funding provided by government from taxation. In four countries – Cyprus, Luxembourg, Slovakia and Finland – the share from government revenue increased at the same time as the social contribution share rose, reflecting a reduction in the share of revenue from interest and other receipts.

There were eight EU Member States in which the share from the government contribution declined by more than 1 p.p., and four (Finland, Lithuania, and, most especially, Bulgaria and Latvia) where it fell by more than 2 p.p. At the same time, there were four Member States — Malta, Greece, Spain and Slovakia – where the government share of financing increased by more than 2 p.p.

Over the period 2010-2015, and especially after 2012-2013, the slight increase in the share of social contributions in some countries is partly linked to the improving economic and labour market situation. Moreover, as is the case in Slovenia, the increase in the share of social contributions is a result not of changes in regulations, but rather an effect of the oldest cohorts being replaced over time by younger cohorts with a higher labour force participation rate. However, similarly to the previous period, the most visible changes in some countries are due to country-specific reforms (BG, CY, FI, HU, LV, IT, PL and SK, see also Box 11). The increase in the share of social contributions can also be partly attributed to reforms enacted during the previous period to increase pensionable age, so prolonging working lives and increasing the revenue from contributions.

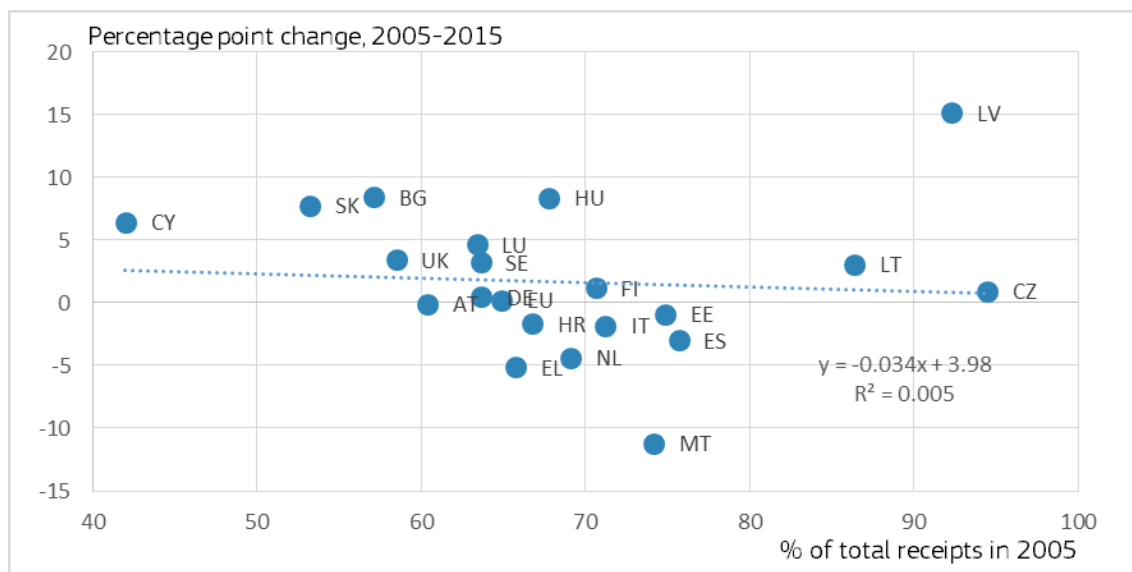
Reforms implemented in the 2010—2015 period included a tightening of eligibility conditions (increasing pensionable ages, prolonging contributory periods) as well as changes in contributory requirements (CY, CZ, DK, EE, IE, EL, ES, FR, HU, IT, HR, IT, LV, LT, MT, NL, PT, RO, SI, SK, UK), the introduction of new government-financed supplements for low income pensioners (e.g. CY, FI, LV) and the continuation or reversal of reforms in statutory funded pension schemes in some Eastern and Central European countries (e.g. BG, HU, LV, SK). As already mentioned above, at the beginning of the 2000s, in several Central and Eastern Europe, the Government had to intervene in the newly introduced statutory funded pensions schemes which had put public budgets under pressure and added to debt and deficits. During the crisis period, contributions were put on hold, reduced, and then in some cases even cancelled altogether as statutory funded mandatory pension schemes were abolished (in Hungary) and assets returned to the public sector. This partly explains the changes in financing mix in some countries (see Box 11).

Over the 2005-2015 period as a whole, the share of financing raised from social contributions declined in 13 of the 20 Member States for which data are available, as the increases which occurred in many of them over the second half of the period failed to outweigh the reductions

which occurred in the first half. In another (Finland), it remained unchanged, while in six- Germany, Luxembourg, the, UK, Sweden, Cyprus and, above all, Hungary- the share increased.

There is some evidence, if limited, of an inverse relationship between the change in the share of financing from contributions between 2005 and 2015 and the initial level. Most of the countries in which the share fell over this period, therefore, had above average shares in 2005 (or the earliest year for which there are data) – the exceptions are Bulgaria, Austria and Slovakia – while most of those in which it increased had below average shares initially. In Germany, Luxembourg and Sweden, however, the initial share was only marginally below the average. There is no apparent tendency, however, for convergence (in the sense of the share increasing by more the smaller the initial share or declining by more the larger the share) (Figure 43).

Figure 43 Share of social contributions in total financing of old-age benefits and changes in the share 2005-2015



Note: The % of total receipts for EE and UK, relates to 2007, for BG and HR to 2008, for ES to 2010 and for LU to 2012. The change in the share for EE and UK relates to 2007-2015, for BG and HR, to 2008-2015, for ES, to 2010-2015 and for LU, to 2012-2015.

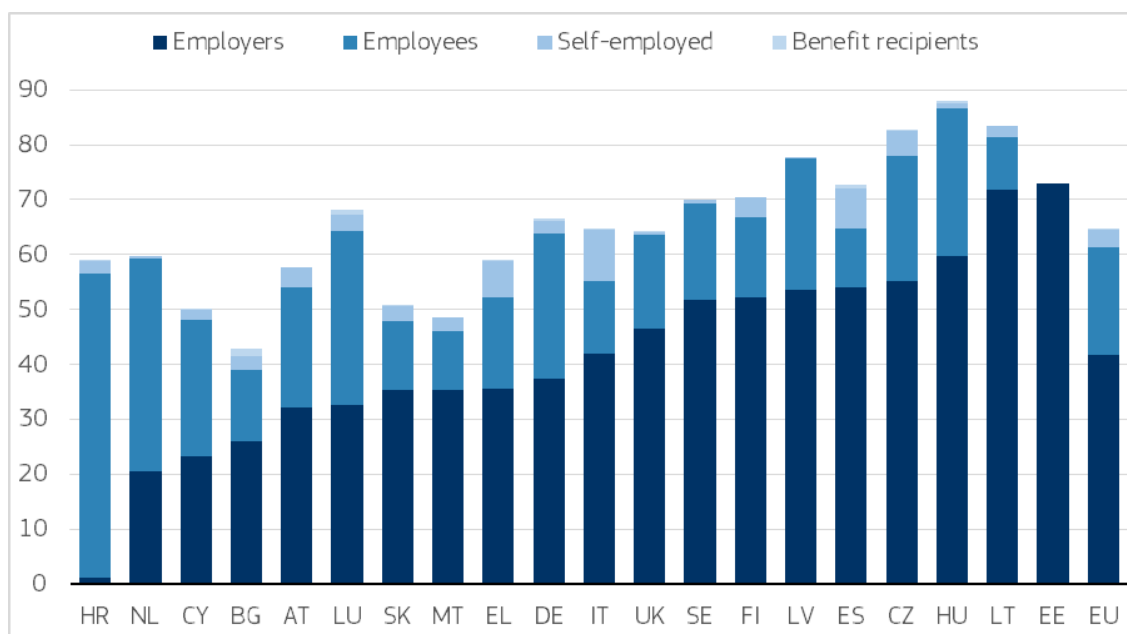
Source: Eurostat, ESSPROS data by scheme

The share of financing from Government increased in all the countries in which the share from contributions fell, but it also increased in Finland, where the share of contributions remained unchanged, and in Luxembourg and Cyprus, where the share of contributions increased, in all three cases, compensating for a decline in other receipts.

Division of revenue for old-age benefits from social contributions by source

As in the case of total social protection expenditure, the social contributions which finance old-age benefits come mainly from employers in most Member States. These, in 2015, were responsible for over 40% on average of the total funding of such benefits, over twice the share from employees (Figure 44).

Figure 44 Division of social contributions for financing old-age benefits by source, 2015 (% of total financing of old-age benefits)



Note: Countries are ordered in terms of the share of financing from employers' contributions.

Source: Eurostat, ESSPROS data for schemes and authors' calculations

The main exceptions are, at one extreme, Estonia, where all of the social contributions levied for funding old-age benefits came from employers, and Spain and Lithuania, where over 80% did so, and at the other extreme, Croatia, where employees were responsible for virtually all of the social contributions levied for this purpose. Of the other countries, it is only in Luxembourg, and Cyprus that half or more – 52% in the first two, 50% in the last – of contributions come from employees.

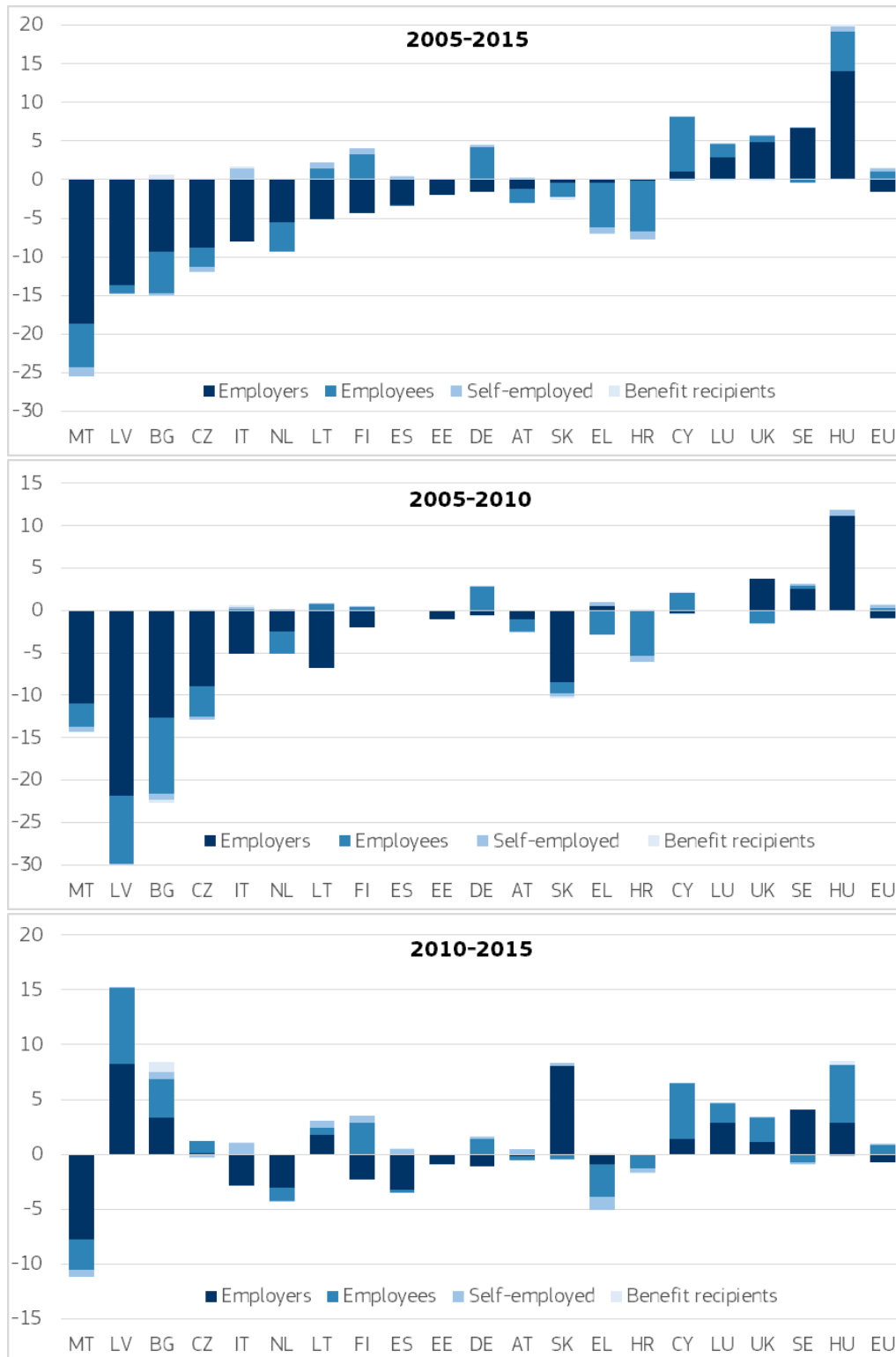
As in the case of the funding of social protection as a whole, only a small proportion of the social contributions for financing old-age pensions come from the self-employed: only 3% on average in 2015. There are only three countries where the proportion was much above this: Greece (6%), Spain (7%) and Italy (10%), reflecting, to some extent, the relatively large share of self-employment in these countries (for more discussion see Section 3.2.1). Only a very small share, moreover, comes from benefit recipients themselves. Indeed, in many countries, old-age pensioners are exempt from paying contributions, and only in Spain and Luxembourg was the share above 0.5% of the total.

Changes in the revenue for old-age benefits from social contributions by source, 2005-2015

2005-2010

Over the five years 2005-2010, revenue from employers' contributions decreased on average by around 1 p.p. while employees' contributions increased slightly (Figure 45). A shift in the same direction occurred in 12 Member States (BG, CY, CZ, DE, EE, FI, HU, IT, LT, LV, MT, SK) of the 18 for which data are available, in the sense that the share of the total financing of old-age benefits from employees' contributions increased by more, or declined by less, than the share from employers' contributions, or increased while that from employers declined. In Latvia, Bulgaria, Czechia, Malta and Slovakia, both employers' and employees' social contributions declined considerably, but by more for employers than employees.

Figure 45 Changes in the division of revenue from social contributions for financing old-age benefits by source, 2005-2015 (percentage point change)



Note: Countries are ordered in terms of the change in the share of financing old-age benefits from employers' contributions over the period 2005-2015. Changes for EE and UK relate to 2007-2015; for BG, HR and RS to 2008-2015; for ES to 2010-2015; for LU to 2012-2015.

Source: Eurostat, ESSPROS data by scheme and authors' calculations.

These developments were mainly due to changes in contribution rates, as well as more comprehensive reforms targeted at reducing employers' contributions, such as exemptions for certain categories of labour, and/or sectors (e.g. in BG, DE, FI, LT, LV, NL, IT, see also box 11 below).

Several other factors, such as the impact of the newly-introduced mandatory funded pension schemes in Eastern and Central European countries (e.g. in BG, HU, LV) and the introduction of pension supplements for low income pensioners played a role in the changes of the financing mix for old-age benefits (e.g. in CY, LV; see Box 11).

2010-2015

Over the subsequent five years, in 12 Member States (MT, BG, CZ, IT, NL, FI, ES, EE, DE, CY, UK and HU) the share of the total financing of old-age benefits from employees' contributions increased by more, or declined by less, than the share from employers' contributions, or increased while that from employers' contributions declined. In other words, there was an effective shift of funding from employers' contributions to employees' in the majority of countries to continue the pattern in the earlier period. There are only two countries, Greece and Malta, where the share of funding from employees' contributions fell by more than 2 p.p., and in both of these, the fall was less than 3 p.p. At the same time, there are ten Member States, where the share of financing from employers' contributions rose over this period and in three of these (Latvia, Lithuania and Luxembourg), it rose by more than the employees' share. Since there were another four countries – Greece, Croatia, Slovakia and Sweden – in which the share of financing from employers' contributions increased while the share from employees' fell or declined by less than the latter, and one (Austria), in which the two shares remained much the same, the shift in financing from employers to employees was by no means universal over this period.

2005-2015

Over the 2005-2015 period as a whole, although there was a shift in funding from employers to employees in the majority of the Member States for which there are data, there are six countries (Greece, Croatia, Austria, Slovakia, Sweden and the UK) where the shift was in the opposite direction. In most of these, it is because of the relative changes in shares which occurred over the second half of the period. In sum, therefore, a relative shift in financing old-age benefits from employers to employees was more a feature of the first half of the period than the second.

The social contributions paid by the self-employed as a share of the total financing of old-age benefits changed relatively little over the period as a whole in most countries, increasing in eight – most especially in Italy, Lithuania and Finland (by around 1 p.p. in each case) – and declining in seven, most notably in Greece and Malta (again by around 1 p.p. in both). This mixed pattern of change was the case in both the first and second half of the period.

Box 11 Changes in the financing mix for old-age pensions

Bulgaria

In Bulgaria, the share of social contributions in the financing of social protection fell from 60% in 2005 to less than 50% in 2010. This was partly due to policies to boost employment and investment, but also it resulted from the cutting of contribution rates and increasing deficits in the pension system, which were covered from general taxation. The main reason for the change was the series of reductions in social contribution rates which occurred from 2007 onwards, coupled with increasingly large transfers from the government to the National Social Security Institute budget. In 2010, almost two-thirds of expenditure on old-age pensions was financed from government revenue, although initially the statutory funded pension system was designed to be sustainable and funded primarily from social contributions. After 2010 this policy trend was reversed, and social security contribution rates have been increased several times by 1-2%. The share of funding for old-age pensions from contributions therefore increased to 43% by 2015, still well below the EU average.

Cyprus

In Cyprus, where the shares of both social contributions and government revenue in funding increased over the 2005-2010 period there have been three waves of reforms since 2005 and, in particular, since the crisis in 2009. Most of them were aimed at strengthening the financial sustainability (and so involving the collection of social contributions) of the public system. For example, there were several increases in contribution rates and the introduction of stricter eligibility conditions. In 2010, in parallel, a means-tested top up “Income Support Scheme”, financed by the government, was implemented for low-income pensioners in order to reduce the at-risk-of-poverty rate among them, which at that time was the highest in the EU.

Finland

The share of employers’ contributions in the funding of old-age benefits fell continuously over the period 2005-2015. This was partly driven by a series of reforms aimed at revitalising the Finnish economy, which was hit hard by the 2008 global recession. A guaranteed pension (GP) was introduced in 2011 in order to support pensioners receiving the National basic pension (NP) as their only source of income. During the preparation process of this reform, employers’ contributions were gradually reduced and finally abolished in 2010. In 2005, the employers’ share of financing of the NP was 46% while government revenue accounted for 40%. In 2010, employers’ contributions made up only just over 1%, and since then the state has been the only source of finance for both the NP and the GP.

Hungary

In 2015, 88% of revenue for old-age benefits came from contributions, 20 p.p. more than in 2005. This increase is partly a consequence of a budgetary procedure introduced in 2012 that annually adjusts contributions to expected benefits, removing the need for government revenue. However, the financing structure of pensions has been affected most by, first, the maturation of the statutory funded mandatory pension funds since 1998 and, secondly, their abolition, and so, “defunding”, in 2011. More specifically, the government acted as guarantor for the transitional deficit of the pension system during the maturation period, as contributions were redirected to mandatory funded pension schemes. This guarantee increased the share of government revenues and reduced the share of contributions in financing old-age benefits. The maturation of the funded pillar was abruptly interrupted in 2011 when the government created conditions that involved the return of the majority of mandatory funded scheme members to the PAYG system.

Latvia

Latvia is the Member State where the share of social contributions in the financing of old-age benefits fell most in the 2005-2010 period, while government contributions increased significantly. There are several factors, together with the consequences of the 2008 crisis, behind these developments. A pension supplement was introduced in 2006 which was initially granted only to people with low pensions, but starting from 2009 this was extended to all pensioners. Since 2012, the supplement has been phased out, although those who retired before 2012 still receive them. This has resulted in a progressive reduction in the government share of funding.

Italy

Italy has experienced a steady decline in the financing of pensions from social contributions, coupled with a decline in the employers' share of financing and an increase in the government share of funding. There are several reasons for these tendencies. First, in order to reduce labour costs and support employment of particular groups, a partial and temporary exemption from social contributions was introduced for employers during the crisis, so that the reduction in revenue from contributions had to be replaced from general taxation. This was only partly offset by an increase in the share paid by the self-employed (8.2% and 9.5% of total receipts in 2005 and 2016, respectively), mostly due to an increase in their contribution rates. Secondly, a number of labour arrangements involve reduced contribution rates. Accordingly, for the pay-as-you-go public pension scheme, when the share of these types of job increases, the contribution amount is reduced and pension expenditure has to be topped up by an increased share of revenue from general taxation. Thirdly, the share of government revenues increased as the number of beneficiaries of the various types of minimum pension (entitlement to which is not based on past contributions) and the level of benefits increased. This was a result of the 2007 and 2016 pension reforms, which led to the government completely financing the means-tested old-age social allowance and the minimum pension supplement. Fourthly, a reduction in the share of contributions can occur when pension spending in the pay-as-you-go scheme increases faster than the total wage bill (due to wages not rising or only slowly): an increasing share of pension expenditure then has to be financed by the government.

Poland

Social contributions financed almost three quarters of old-age expenditure in 2007, but only slightly more than half in 2010. This fall in the contribution share particularly between 2008 and 2013, was related to changes in the social insurance contributions for disability and survivor benefits. Up until mid-2007 the latter was set at 13% of wages, it was then reduced to 10% to December 2007. Between 2008 and 2012 it was further lowered to 6% and in 2012 it was increased to the current 8%. As a result, the share of revenue from contributions for financing disability and survivors' pensions declined between 2008 and 2011 to around 60% and from 2012 it gradually increased to 97% in 2017.

Since 2012, there has been an increase in the share of social protection funding from social contributions, also partly as a result of changes in the old-age contributions between pay-as-you-go and funded part of the statutory system. After 2016, the revenue from contributions also increased, due to an expansion of coverage resulting from changes in the rules as regards workers with civil law commission contracts.

Slovakia

In Slovakia, during the period 2005-2010, the share of social contributions in funding decreased while that from government revenues increased. Over the following period, 2010-2015, the latter continued to grow coupled with an increase in the share of social contributions. These developments were partly linked to the crisis but mainly to several reforms which affected the pension system. The 2005 pension reform established a statutory funded pension scheme. As a result, a proportion of the pension contributions were redirected to personal accounts managed by private companies. After the introduction of the funded scheme, around 60% of the economically active population transferred part of their pension contributions to their personal accounts. The deficit in the pension fund of the Social Insurance Agency was covered by transfers from other funds, from privatisation proceeds and from the state budget.

The 2012 pension reform reduced the contribution rate for the statutory funded scheme from 9% to 4% of the gross wage. While prior to 2012 both amounted to 9% of the gross wage, this was reduced to 4% after 2012. Since 2017, the contribution rate for the second pillar has started to increase automatically.

Source: ESPN Country reports (2019)

At times, revenue from social contributions has been insufficient to fund the need for spending on old-age benefits. This is a major reason why governments have been obliged to cover deficits in the social protection system as a whole. Some ESPN Country reports provide information on deficits based on national old-age pension data (e.g. BG, CZ, HR, HU, EE, LT, PL, RO, SK)⁵⁶.

For instance, in Poland in 2017, the old-age pension scheme deficit amounted to 1.8% of GDP, the revenue from social contributions consistently being below total expenditure on old-age pensions. However, in recent years the share of contributions in the financing of old-age pensions has increased – from 50.6% in 2010 to 74.5% in 2017.

Very few countries reported surpluses in pension schemes. In Latvia the old-age pensions' budget, similarly to other social protection schemes, has not been in deficit for the past 15 years (see also Section 1.2) In Cyprus, the receipts of the social protection fund significantly exceeded total expenditure over the period 2005-2010. After 2010, however, the surplus shrunk and in 2016 the fund showed a small deficit.

3.2.2 The financing of healthcare and sickness benefits

The financing mix in 2015

There is a distinct split between countries in the way healthcare and sickness benefits are financed. National Health Service (NHS) systems are primarily tax-funded. Social Health Insurance (SHI) systems are financed by a mix of social contributions and general taxation. A few countries have a mandatory Private Health Insurance (PHI) system. In PHI systems, private health insurers play a pivotal role in providing a statutory defined package of benefits through compulsory health insurance (Baeten *et al.* 2018 and Table 8).

⁵⁶ For more information, please consult these Country reports here.

Table 8: Models of health systems

National health service systems (NHS)	Social health insurance systems (SHI)	Private insurer systems (PHI)
CY*, DK, ES, IE, IT, LV*, MT, PT, SE, UK	AT, BE, BG, CZ, EE, FR, HR, HU, LT, LU, PL, RO, SI, SK,	NL
EL, FI Mixed systems NHS/SHI		
	DE Mixed system SHI/PHI	

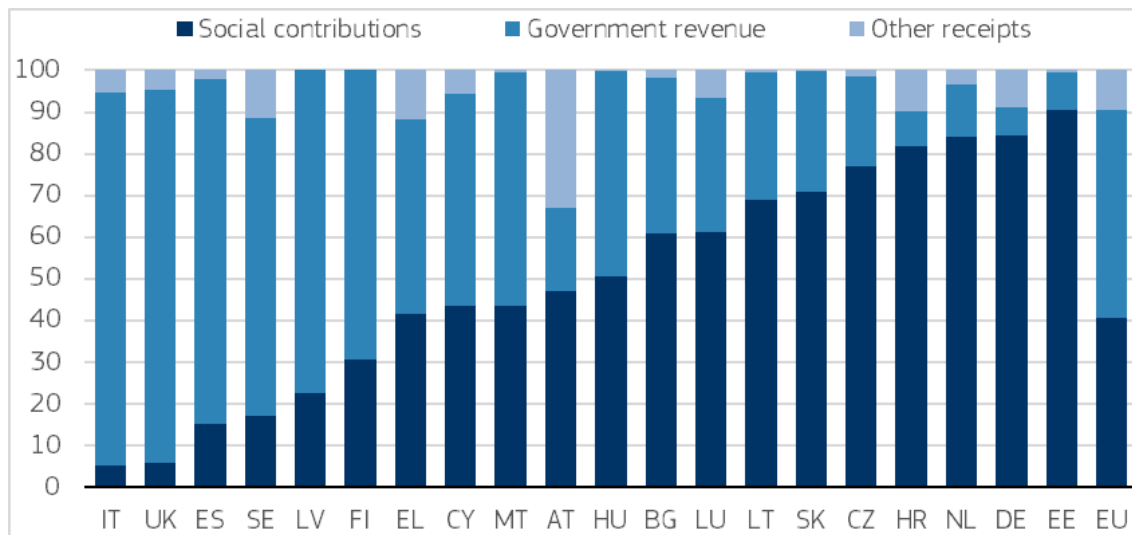
*Country in transition towards a SHI system.

Source: Adapted from Baeten et al. (2018 : 13).

Croatia, Germany and Estonia are prominent examples of insurance-based healthcare systems. In all of these, social contributions accounted for over 80% of overall funding in 2015 (Figure 46). The same is the case for Austria, where transfers from other schemes, likely to have been raised predominantly from contributions, accounted for over 30% of overall funding of healthcare in 2015.

In Member States with predominantly national health service – NHS – systems, these are, mostly financed from Government revenue. In Italy, Latvia, the UK, Spain and Sweden, general government taxation provided more than 70% of financing.

Figure 46 Division of financing of healthcare and sickness benefits by main source, 2015 (% of total financing for healthcare and sickness)



Note: Countries are ordered in terms of the share of financing from employers' contributions.

Source: Eurostat, ESSPROS data by scheme and authors' calculations

The general government revenue used for financing healthcare is raised through general taxation in nearly all countries. In Belgium (not included in Figure 46, however, 11% of the total funding came from earmarked taxes in 2015, and in Greece, a very small amount (0.1%) did so. In both countries, the amount concerned declined over the period 2005-2015; in Belgium it fell only slightly from 12% of the total in 2005, and in Greece it declined from 3% in 2005 to just under 2% in 2010, and to a negligible proportion at the end of the period.

Changes in the division of financing for healthcare expenditure 2005-2015

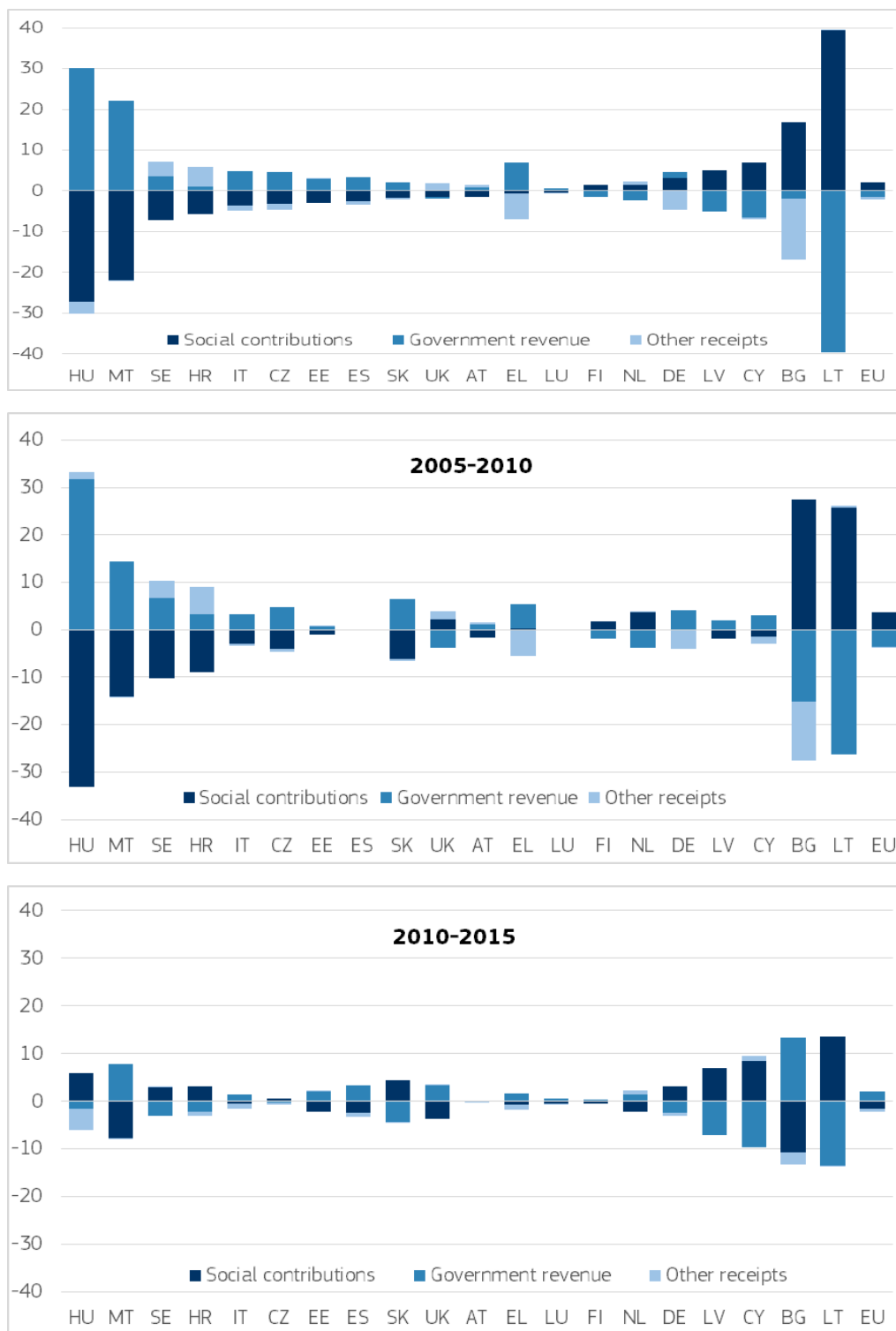
2005-2010

The healthcare financing models have not changed much in broad terms in most countries since 2005, though there are a few exceptions.

Over the period 2005-2010, covering the recession years, there was an increase in the share of financing for healthcare raised from social contributions in the EU as a whole, but the share declined in ten of the 18 Member States for which data are available, remained much the same in two (Germany and Greece) and increased in only six countries (Estonia, Finland, the UK, the Netherlands, Lithuania and Bulgaria) (Figure 47). The decline was particularly marked in Sweden and Malta, where the share of contributions in funding fell by over 10 p.p., but most especially in Hungary, where it fell by 34 p.p., signalling a marked policy shift in financing, towards general taxation.

By contrast, there was a substantial increase (over 25 p.p.) in the share of funding from social contributions in Bulgaria and Lithuania, reflecting in the latter a shift towards a more social-insurance-based healthcare system (see Box 12). In Bulgaria, there were several increases in social contribution rates for healthcare over the period. In 2008, social contributions and government revenue provided similar amounts of funding for healthcare and sickness benefits, as a result of large government transfers to the National Health Insurance Fund following reductions in contributions. In 2010, the share of healthcare contributions increased as a result of a 2009 increase in rates from 6% to 8%. Since then the rate has remained at 8%, but the share of transfers from government has gradually increased to cover the growing budget deficit.

Figure 47 Change in the division of financing of healthcare and sickness benefits by main source, 2005-2015 (percentage point change)



Note: The chart shows changes in the % division of financing for healthcare and sickness benefits between the three broad sources. Countries are ordered in terms of the change in the share of social contributions over the period 2005-2015.

Change for EE and UK relates to 2007-2015; for BG, HR and RS to 2008-2015; for ES to 2010-2015; for LU to 2012-2015

Source: Eurostat, ESSPROS data by scheme and authors' calculations

Box 12 Methodological clarification of ESSPROS Healthcare data in some countries

Romania

As indicated in Section 2.2.2, the ESSPROS data were revised in 2016, leading to a substantial shift of funding from general government to social contributions. This is not reflected in the data by scheme, which only go up to 2015. According to national data, healthcare is largely financed by social contributions, whereas the ESSPROS data, before adjustment, show the opposite. Social insurance contributions for healthcare have been compulsory since 2006, and national data indicate that they accounted for 82% of total financing in 2015, with general government revenue mostly funding public health programmes.

The Netherlands

In the Netherlands, there have been some shifts in the financing of healthcare that are not clearly visible in the ESSPROS data. The 2005 healthcare reform, implemented in 2006, resulted in a moderate increase in the employees' share of financing relative to that of employers. In addition, individuals also now share more of the costs of healthcare, because the annual amount deducted from income has increased from EUR 170 in 2008 to EUR 385 in 2019. In addition, the “nominal premium” (a government-set target) for individual insurance policies has risen from EUR 1,030 in 2006 to EUR 1,432 in 2019. While deductions are not counted as social contributions in the ESSPROS data, health insurance premiums are.

Source: ESPN Country reports (2019)

2010-2015

Over the subsequent five years, 2010-2015, there were fewer large shifts in the mix of funding and a similar number of countries in which the share of contributions increased (nine) as it declined (eight), the share remaining much the same in three countries. In this case, the average share increased slightly in the EU (Figure 47). In seven of the nine Member States in which the share of funding from social contributions increased, it offset the reduction which had occurred in the preceding five years, though only in Cyprus and Latvia was it large enough (7-8 p.p. in each case) to outweigh the earlier decline.

In Lithuania, however, there was a substantial increase in the share of funding from social contributions (14 p.p.), as the shift to a social-insurance-based healthcare system continued.

Similarly, in four of the seven Member States in which the social contribution share of funding declined, and for which there are data for both periods, this followed an increase over the previous five years, though only in the UK and Greece was it larger than the earlier rise. The main exception is Malta, where a substantial decline in the share of funding from social contributions over the 2005-2010 period was followed by a significant further reduction over the subsequent five years.

2005-2015

As a result of these changes in shares in the two periods, there was, on average, an increase in the share of funding of healthcare raised from social contributions in the EU over the ten years 2005 to 2015. However, among the countries for which data are available for both periods, there are twice as many in which the share declined as it increased, though in five of the 12 countries concerned, the increase was less than 2 p.p. and in another three, less than 4 p.p. The reduction

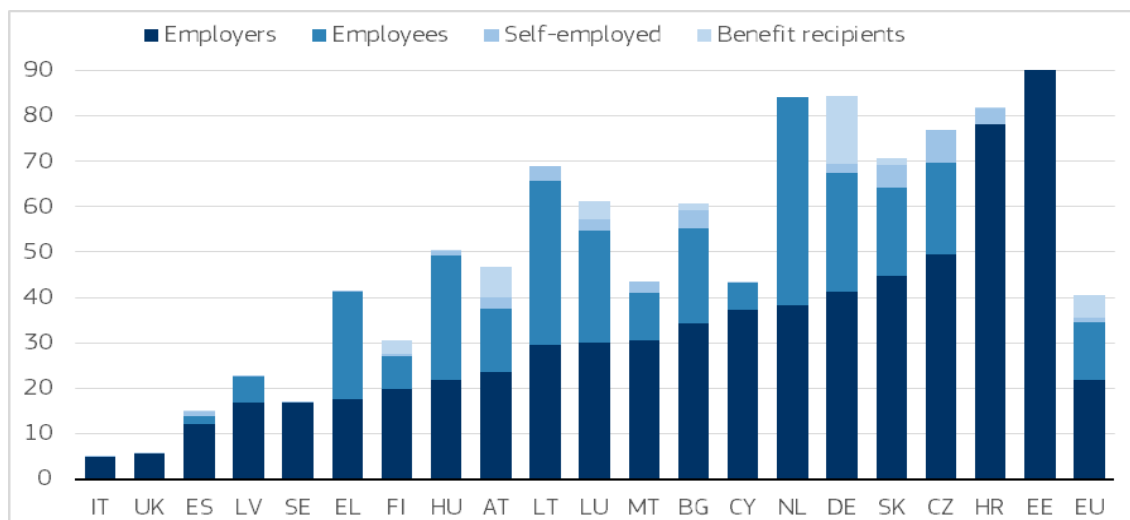
was particularly large in Hungary and Malta (well over 20 p.p. in both cases). By contrast, the increase was substantial in Lithuania (40 p.p.) and Bulgaria (17 p.p.) and over 5 p.p. in both Cyprus and Latvia.

The overall conclusion which emerges from the above is that for most countries, there has been no long-term shift in the mix of funding for healthcare, either away from or towards social contributions, since 2005. However, in some countries, there have been continuous structural changes in the composition of financing and even in the healthcare model itself. This is the case for Lithuania, as noted above, but also for Cyprus, where the system has been moving from a tax-based to an insurance-based system through increases in the rates of existing contributions as well as the introduction of new ones. On the other hand, in Hungary, the move has been in the opposite direction towards more reliance on taxation to fund the system.

Healthcare financing from social contributions by source

As in the case of old-age pensions, employers account for a much larger share of the social contributions financing healthcare than employees (almost twice as large in 2015). Benefit recipients also account for a much larger share of total funding of healthcare than for old-age pensions and the self-employed for a much smaller one (Figure 48).

Figure 48 Division of social contributions for financing healthcare and sickness benefits by source, 2015 (% of total financing for healthcare and sickness benefits)



Note: Countries are ordered in terms of the share of employers' contributions in total financing.

Source: Eurostat, ESSPROS data by scheme and authors' calculations

Again, as in the case of old-age pensions, the split between employers' and employees' contributions in the financing of healthcare and sickness benefits varies across countries, with employers accounting for all or virtually all of the contribution-based funding in Italy, the UK, Spain, Sweden, Croatia and Estonia (although in the first four countries, the share of contributions in the total financing of healthcare is small). For Estonia, this situation is the same as for old-age pensions, but for Croatia, it is the exact opposite. In Greece, Lithuania, Hungary and the Netherlands, however, employers accounted for less than half of the total funding from social contributions, mainly resulting from exemptions and reductions in their social contribution rates.

As for other benefits, contributions from the self-employed account for relatively little of the financing for healthcare, their share exceeding 4% of the total in 2015 only in Slovakia and Czechia. The contributions paid by benefit recipients, in this case, of individuals who are not in employment, also make up only a small part of financing, zero or close to zero in 13 of the 20 countries, and over 3% only in Luxembourg (4%), Austria (7%) and Germany (15%).

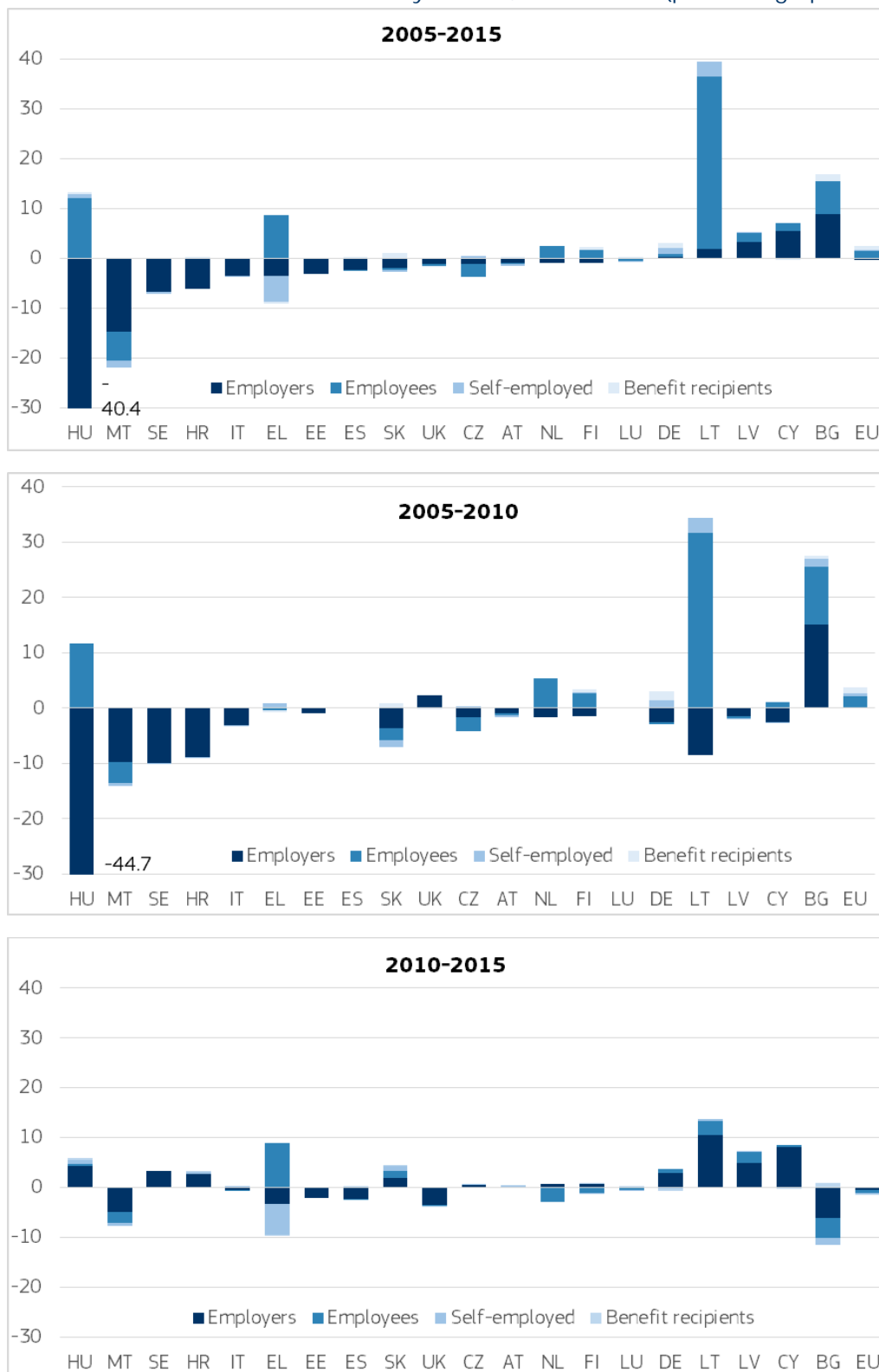
Changes in the revenue from social contributions for healthcare and sickness benefits by source, 2005-2015

2005-2010

Over the five years 2005-2010, there was a widespread shift from employers' to employees' contributions in the financing of healthcare, though for most countries the share of both in overall funding declined (Figure 49).

There was, therefore, a tendency for the share of social contributions from employees to increase by more, or to decline by less, than the share from employers, or to increase while the latter declined. This was the case in 14 of the 18 EU Member States for which there are data. It was particularly the case in Lithuania and Hungary: in the former, the share of funding from employees' contributions increased markedly while that of employers declined, and in the latter, the share from employers declined substantially while that of employees increased. By contrast, in Bulgaria, the share of both increased significantly, though, in this case, more for employers than for employees.

Figure 49 Changes in the division of revenue from social contributions for financing healthcare and sickness benefits by source, 2005-2015 (percentage point change)



Note: Countries ordered in terms of the change in the share of financing from employers' contributions over the 2005-2015 period. Change for EE and UK relates to 2007-2015; for BG, HR and RS to 2008-2015; for ES to 2010-2015; for LU to 2012-2015

Source: Eurostat, ESSPROS data by scheme and authors' calculations

2010-2015

Over the next five years, 2010-2015, there was less of a shift in the shares of funding of healthcare, with both employers' and employees' contributions declining slightly on average in the EU to much the same extent. In half the 20 countries for which there are data, there was an effective shift from employees to employers, in seven a shift in the opposite direction and in three, very little or no shift. The shift to employers was particularly pronounced in Cyprus and Lithuania, in both of which there had been a shift towards employees in the preceding five years, especially in Lithuania. In most of the other ten countries, the shift to employers was relatively modest. By contrast, there was an even more pronounced shift from employers to employees over this period in Greece, where the share of funding from employers' contribution was reduced, while that from employees' contributions was increased by 9 p.p.

2005-2015

Over the 2005-2015 period as whole, the shift in the first five years dominates and in the EU, on average, the share of funding from employers' contributions declined a little while that from employees' increased. Of the 18 countries for which data are available before 2010 (even if not necessarily for the whole five years), there was a shift of funding from employers to employees in 14 of them and a shift in the opposite direction only in three (Bulgaria, Cyprus and Latvia), with very little shift at all in Germany. Moreover, whereas the shift from employees to employers where it occurred was relatively small, the shift from employers to employees was substantial in Greece, Hungary and Lithuania

In most countries, the share of financing of healthcare accounted for by self-employed contributions changed by relatively little over the period 2005-2015, increasing only marginally in the EU on average, the increase being concentrated in the first 5 years. It increased more than marginally only in Czechia, Germany, Hungary and, above all, in Lithuania (where it expanded by 3 p.p.). Apart from in Hungary, the increase occurred more, or wholly in the case of Germany, in the first half of the period. It declined more than marginally only in Austria, Slovakia, Sweden, Malta and, most notably, in Greece, where it was reduced by 6 p.p., the reduction occurring in the second half of the period, whereas in Malta, it was spread over the ten years, as it was in Sweden. In Austria and Slovakia, the reduction in share it was concentrated in the years before 2010, the share increasing in the latter over the subsequent five years (by 1 p.p., not enough to offset the earlier reduction).

In Greece, the substantial reduction in the share of funding from the self-employed over the period 2010-2015 occurred at the same time as the number of self-employed fell by slightly less than the number of employees, implying a reduction in the average social contributions received from the self-employed or a narrowing of coverage. On the other hand, the increase in the share of healthcare funding from self-employed contributions over the same period in Hungary and Slovakia occurred at the same time as the number of self-employed declined relative to employees, implying an increase in the average contributions received from them, or wider coverage. In Lithuania, for instance, there was a four-fold increase in the share of financing from social contributions paid by the self-employed between 2005-2015, which largely resulted from the increase in coverage of social insurance: previously the self-employed were covered only for the basic component of pensions, while they are now covered for almost all standard risks.

There was also relatively little change over the period 2005-2015 in most countries in the share of healthcare funding accounted for by benefit recipients, reflecting the fact that in many of them, recipients pay no contributions at all. However, in the EU as a whole, there was an increase in the share of around 1 p.p., concentrated in the first half of the period. In Germany, Slovakia and Bulgaria, the benefit recipient share increased by just over 1 p.p., the increase being concentrated in the years before 2010 in the first two – indeed, in Germany, there was a reduction after 2010, though not enough to outweigh the earlier increase. In Bulgaria, the increase in the share occurred mostly in the second half of the period, as it did in Hungary, where the share of benefit recipients went up by around 0.5 of a p.p., the only country apart from Austria, Croatia and Finland, where there was any increase at all in the share over the period, in addition to the three mentioned above. Greece was the only country to show a reduction of the share of funding from benefit recipients over the 10 years, of 0.5 of a p.p., largely concentrated between 2005 and 2010.

Policy reforms affecting the healthcare mix

The financing mix for healthcare has been affected by several factors. First, as for pensions, the financial and economic crisis led to reduced financing from social contributions and an increase in the share from general government, in particular in Social Health Insurance systems (SHI) but also in National Health Service (NHS) systems. Since 2013-2014, there has been a visible recovery in the share of social contributions in funding. Secondly in several countries, the reduction in the share of employers' contributions resulted from deliberate policy choices aimed at maintaining or increasing competitiveness, especially during the crisis period (e.g. in BG, DE, HR, HU, FI, IT, SK, NL). These developments were, in general, offset by an increase in the financing from general government revenue or a shift of financing towards employees' contributions. Thirdly, some countries made more significant changes to their healthcare financing model (e.g. LT, IT, see also Box 13).

As in the case of old-age pensions, deficits in the healthcare system, which need to be covered by government, also affect the overall financing mix in countries (e.g. BG, EE, HR, LT). As stated above, Bulgaria has raised the social contribution rates for healthcare; this has increased the healthcare system's revenue, but a significant deficit remains. The reasons for this are varied, and related to the rising prices for medication, new medical technologies and the way in which the hospital sector is organised. In Estonia, although the Health Insurance Fund revenue has increased, healthcare costs have tended to rise more quickly. The deficit is expected to increase in the long-term because of demographic trends; this has triggered a debate on how to find a solution to fund healthcare on a sustainable basis. In Croatia, where the share of healthcare funding from voluntary health insurance is the fourth largest in the EU (8% as against an EU average of 4%), the system had a deficit of €1 billion in 2019 and was in arrears in payments for pharmaceuticals and other supplies.

In sum, as in the case of old-age benefits, while there was some shift in the funding of healthcare (and sickness benefit) expenditure from employers' contributions to employees' contributions over the ten years 2005 to 2015, it was not universal and it was mainly concentrated in the first half of the period.

Box 13 Significant changes in the financing mix for healthcare

Lithuania

In Lithuania, there has been a significant shift towards increasing the share from social contributions. This is partly a result of policy reforms in 2009 introducing a new healthcare contribution, so increasing the proportion of healthcare funding accounted for by contributions, from 30% in 2005 to 69% in 2016

Hungary

The U-turn in funding policy for healthcare which saw a steep decline in the share of social contributions was mainly due to a number of policy reforms during this period affecting social contribution rates for healthcare (for both employees and employers).

Sweden

In Sweden, where the healthcare system is primarily funded by taxes, and sickness benefits are financed by social contributions, the reduction in the social-contribution share of financing was largely a consequence of the relative growth of the former compared to the latter, due in part to a decline in the number of sickness cash benefit recipients. This resulted from a tightening of eligibility conditions and a reduction in the duration of receipt of benefits.

The Netherlands

The 2005 Healthcare reform resulted in an increase in the employees' share of financing relative to employers.

Finland

Similarly to the old-age pension system, there has been a tendency to reduce employers' contributions and to shift the burden to employees. Whereas the employers' contribution rate was reduced from 2.06% 2006 to 0.8% in 2018, the employees' rate went up from 0.77% to 1.53%.

Germany

The financing of public health insurance underwent some changes between 2005 and 2016. First, in 2005 the principle of equal payments for employers and employees was abandoned. Employers were exempted from paying a part of the contributions, while additional contributions were introduced for the insured. In 2019, however, equal payment of social contributions by the two has been restored.

Another important reform, implemented in 2004, introduced Federal state subsidies to finance services required by society as a whole (e.g. medical treatment for children). The total sum of these subsidies increased from EUR 2.5 billion in 2005 to EUR 14.0 billion in 2016, i.e. 6.2% of total public healthcare expenditure. Federal state subsidies healthcare system are not determined by statutory regulations but are decided annually by the Federal Parliament. They were increased significantly during the financial market crisis in order to avoid increased payments for employers that might restrict competitiveness, and to prevent reductions in employees' purchasing power. The positive economic and employment trends, as well as rising wages, following the financial market crisis enabled the Federal State to maintain subsidies at their previous level. In 2016, SHI funds ran surpluses amounting to around €3 billion.

Poland

Due to the rise in the cost of sickness and maternity benefits, the share of contribution financing for this part of the social insurance system declined from more than 100% before 2008 to 62.5% in 2017.

Greece

In Greece, the changes in the financing mix for healthcare are a result mainly of the crisis. While traditionally, and until the start of the economic crisis, social protection for healthcare was mainly funded by social contributions, since 2008 the share of general government contributions has increased, to reach 47% in 2015. A number of factors, especially since 2010, have contributed to this change: high unemployment, especially long-term unemployment, an increase in the share of part-time jobs and non-standard forms of employment, falling wages and a reduction in population of working age, partly due to outward migration which led to decrease in the share of social contributions.

Italy

Over the last decade, the Italian National Health System (NHS) has become increasingly tax-based: in 2015, 95% of funding came from government revenues or other receipts, compared to around 91% in 2005. The importance of employers' contributions, already relatively low due to the universal nature of the Italian NHS, decreased further between 2005 and 2016 (employees and self-employed are not subject to social contributions for healthcare): while in 2005 employers' contributions made up 8.5% of total health expenditure, this declined to 4.9% in 2015. This change took place in the 2000s, when a reduction of the specific tax paid by employers to finance (also) the NHS (the so called IRAP tax) was adopted in legislation. Even by 2008, the employers' share was down to 6.3%, from 8.5% in 2005.

Croatia

The only policy change that occurred was a fall in the health contribution rate (paid by the employers) from 15% to 13% over the period May 2012 – April 2014. This occurred as the government tried to increase economic competitiveness by lowering labour costs for employers, but this step produced a further increase in the budget deficit.

Source: ESPN Country reports (2019)

However, it is to be expected that the financing mix for healthcare will change in some countries in the future as there are several on-going reforms, some of which are comprehensive (CY, EL, FI, LV), and mainly aimed at improving coverage and access to healthcare (Beaten *et al.* 2018). As an example, Cyprus has implemented a new National Health Service (NHS) (to be in place by 2020). This scheme will provide universal coverage and will be financed by state revenues as well as compulsory contributions levied on wages, self-employed income and pensions. A compulsory healthcare contribution of 1.5% was imposed on the gross earnings of civil servants and public sector pensioners in 2013. This measure was envisaged as the first step towards a contributions-based system of universal healthcare coverage. Until 2013, these people had free access to public healthcare services. New healthcare contributions will be imposed in 2019 and 2020. The healthcare reform will alter the financing of the public healthcare system. The old system is primarily financed by general taxation, while the new system will be financed by compulsory contributions payable by all employees, self-employed and pensioners with the participation of employers.

In Latvia, where around 80% of healthcare system financing comes from general taxation, reforms have also been implemented, the social contribution rate being increased from January 2018 by 1% (0.5% paid by the employer and 0.5% paid by the employee). This increase is intended to better fund the healthcare system, and the contributions collected in 2018 were used to increase the wages of doctors and nurses.

More generally, the conclusion to be drawn in respect of the funding of both old-age benefits and healthcare is that there is little sign of any long-term change of any significance in most countries in the relative importance of the different sources of financing. Although there was some shift from social contributions to taxation over the period 2005-2010, which includes the global recession years, since 2010 there has been a shift in the opposite direction in many countries.

As discussed in the section on expenditure on healthcare (see Section 3.1.4), long-term care benefits and services, mostly financed by general taxation in the EU countries, tend to be part of healthcare, which makes it impossible to estimate their funding. As already mentioned, the only exceptions are Germany, Luxembourg and Flanders which have a separate long-term care scheme financed also by social contributions. In Luxembourg, the so-called ‘contribution dépendance’ applies to a wider range of incomes than ‘traditional’ social contributions (wages and pensions and other benefits, but also property income like rents) and amounts currently to 1.4% of the gross wage. The only noticeable change in contribution rates since 2005 was the increase from 1% in 2015 to 1.4% in 2007. This contribution is complemented by a state transfer equal to 40% of total long-term care expenditure.

In contrast to Luxembourg, the German long-term care scheme does not receive any state subsidies but is fully financed by social insurance contributions paid equally by employers and employees which has evolved from 1.7% of gross income in 1997 to 2.55% (2.80% for childless affiliates) in 2017. Between 2103 and 2017, the contribution rate was raised by 0.5% on average, including 0.2% with effect from 2017, mainly as a result of an extension in access based on the new definition of “in need of care” and increases in benefits⁵⁷. Yet, the German ESPN experts highlight the fact that the benefits provided by the scheme are not sufficient to cover all care needs, hence the private co-payments (37% of total expenditure on long-term care). If long-term care benefit recipients are not able to contribute to their costs of caring, they are entitled to social welfare grants, financed by government revenue. Initially, the introduction of the long-term insurance scheme reduced considerably the number of recipients depending on these grants (by 9% between 1994 and 1998). Yet with increases in population ageing and pensioner poverty, recipients increased again from 344,000 in 2005 to 440,000 in 2016.

3.2.3 Other benefits

For the other benefits, the picture is mixed as regards the relative importance of the different sources of financing. Again, while there was a widespread shift from social contributions to taxation in the five years before 2010, there is no common tendency apparent over the period since then.

In the case of **survivors’ benefits**, almost two-thirds of funding (63%) on average in the EU came from social contributions in 2015, with taxation accounting for less than a quarter (23%). Only in Croatia, Malta and Slovakia were social contributions responsible for less than half of funding (over 40% in each case), though in Slovakia, the figure is likely to be greatly understated since a significant proportion of funding came from transfers from other schemes which themselves were likely to be financed from contributions, at least to an extent. In Greece, however, social contributions accounted for only just over half of financing (53%) with just over 40% coming from taxation.

⁵⁷ Gerlinger, Th. 2018

The average share of funding raised from social contributions in the EU declined slightly (by 2 p.p.) over the period 2005-2015 and the share from taxation increased by a similar amount. This shift in the mix of funding, moreover, was fairly widespread across Member States, the share accounted for by contributions declining in 13 of the 18 for which data are available for all or most years. The decline was, in most cases, concentrated more in the first half of the period than the second, with some countries, Latvia and Slovakia, in particular, experiencing an increase in the share in the years after 2010 to offset some of the substantial reduction that occurred in the years before.

This was also the case, though to a lesser extent in Bulgaria and Czechia, whereas in the Netherlands and the UK, the reverse was the case, with the contribution share declining markedly between 2010 and 2015 having risen, even if only slightly, in the five years before. In Poland, the reduction in the share of social contributions in the financing of social protection, particularly between 2008 and 2013, was to a large extent due to modifications in the social contributions for disability and survivor benefits. In Greece, and Malta, on the other hand, the contribution share of financing declined both before and after 2010, as it did in Croatia, though here the reduction in the 2010-2015 period was relatively small.

Of the five countries which experienced an increase in the share of funding of survivors' benefits accounted for by social contribution, over the 10 years 2005-2015, Germany, Finland, Sweden, Cyprus and Hungary, only in the last two was the increase more than 4 p.p., 8 p.p. in Cyprus and 24 p.p. in Hungary, where the increase occurred predominantly in the second half of the period.

In the case of disability benefits, reflecting the importance of means-testing in many countries and the limited role of social insurance schemes, taxation accounts for a larger share of financing on average (47% in 2015) than contributions (39%). The largest shares raised from contributions in 2015 were in Czechia, Estonia, Luxembourg and Slovakia, at around two-thirds in each case, while, by contrast, in the UK and Italy, only 17% of funding came from contributions. In 9 of the 20 countries for which data are available, taxation was responsible for over half of financing and in Bulgaria, Sweden and the UK, for over two-thirds.

Over the 2005-2015, period, there was a marked shift from social contributions to taxation as a source of financing, with the share of contributions declining, on average, by 7 p.p. and the share of taxation rising by 6 p.p., with the change occurring at a similar rate in both the five years before 2010 and the 5 years after. The contribution share declined over this period in 16 of the 18 countries for which there are data, increasing only in Germany and Estonia, and then only marginally (by less than 2 p.p. in each case).

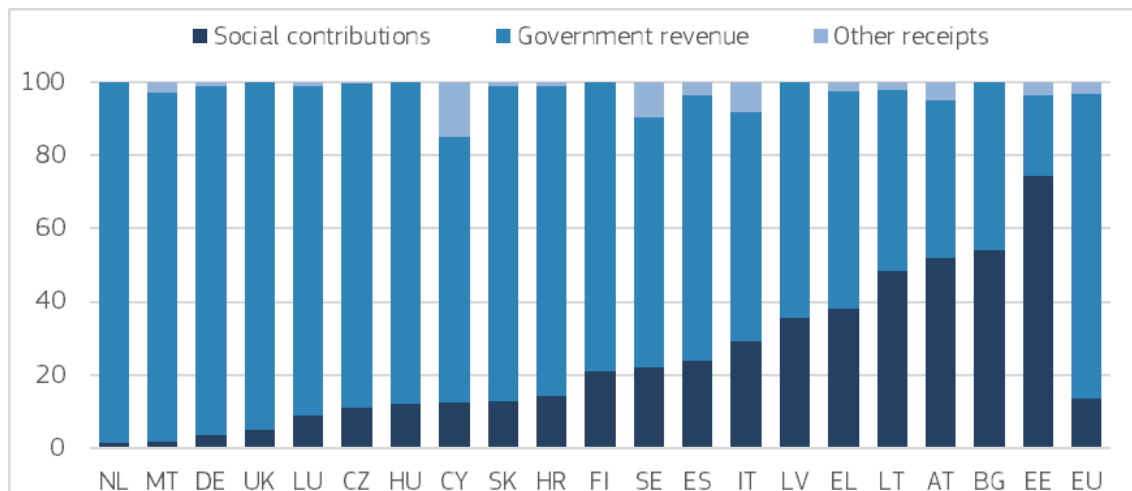
As the counterpart, the share of financing from taxation declined in both these two countries over the period, though in Bulgaria and Latvia as well, there was also a significant decline in the share in the second half of the period, offsetting part of the marked increase in the first half. By contrast, the increase in the share of funding from taxation, and the decline in the contribution share, was particularly pronounced in the Netherlands (as for survivors' benefits), Finland, Sweden and Malta, where the tax share increased by over 20 p.p., and, to only a slightly smaller extent, in Czechia by 18 p.p.).

The explanation for this shift differs between countries and is mainly linked to specific policy reforms. This is the case for the Netherlands, where the decline in the share of funding from social contributions over the period (by 19 p.p.) is largely a result of a reduction in the contributions paid

by employers. Since 2007, they have been able to opt out of the public disability insurance scheme and bear their own risks. Mostly larger employers have opted to do this, so that the share of the total wage bill for which employers bear their own risk increased from 15% in 2005 to 45% in 2015. In the Swedish case, similarly to that of the Netherlands, the trend has been for social security contributions (those entirely paid by employers) to decline, from more than 50% in 2005 to less than 25% in 2016. Meanwhile, the funding from general government revenue has been increasing, and accounted for more than two-thirds in 2016. In Germany, there was also an increase in taxation to finance expenditure on disability benefits over the period as a whole and a reduction in social contributions. Here, this trend was partly the result of an increase in spending by the Länder and the municipalities on “assistance for disabled people”, which is financed from general taxes.

In the case of family and child benefits, funding comes to an even greater extent from taxation, this accounting for 83% of the total on average in 2015, with social contributions making up only 14% (Figure 50). There are four main exceptions to this broad pattern of financing among Member States. In Bulgaria and Austria, social contributions accounted for just over 50% of funding and in Lithuania, for just under 50%, while in Czechia, they made up 74%. By contrast, in Germany, Malta, the Netherlands and the UK, they accounted for less than 5% of funding, with taxation making up over 95% in each case.

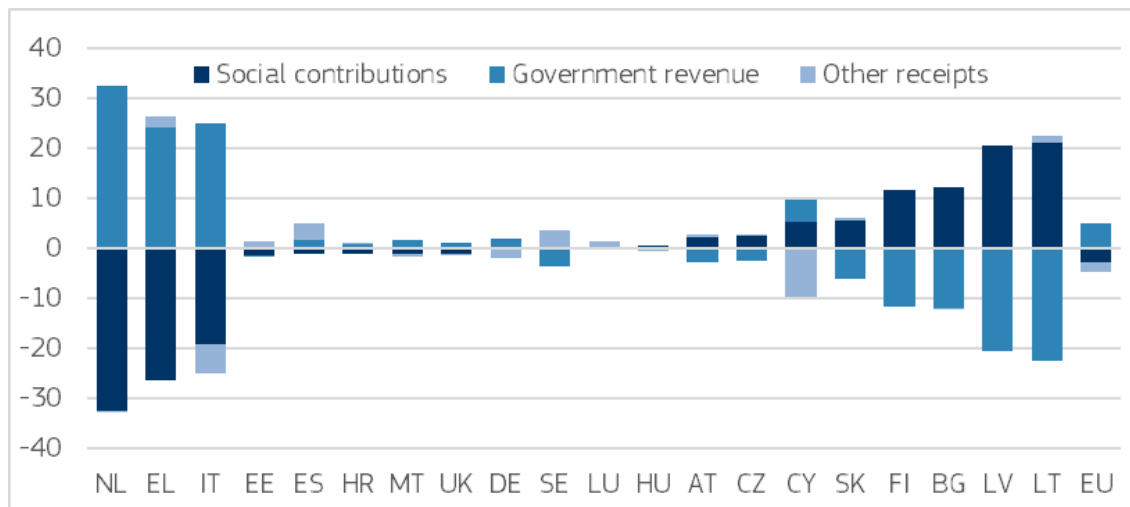
Figure 50 Division of financing of family benefits by main source, 2015 (% of total financing of family benefits)



Source: Eurostat, ESSPROS data by scheme and authors' calculations

In most countries, the mix of funding changed relatively little over the 2005-2015 period (Figure 51). There are, however, a number of prominent exceptions. In Bulgaria, Finland, Latvia and Lithuania, the share of social contributions increased markedly – by 12 p.p. in the first two and 21 p.p. in the last two – in each case, the increase being concentrated in the first half of the period and in each case being accompanied by a counterpart reduction in the share of funding from taxation. On the other hand, in Italy, Greece and, above all, in the Netherlands, there was a substantial reduction in the share of funding from contributions and a counterpart increase in the share from taxation (of 19 p.p. in the first, 26 p.p., in the second and 32 p.p. in the last). In Italy this shift in the mix of financing occurred in both the five years before 2010 and the five years after, in the Netherlands in the first five years and in Greece mainly in the second, though there was also a significant shift in the first half of the period.

Figure 51 Changes in the division of financing of family benefits by main source, 2005-2015



Note: Change for EE and UK relates to 2007-2015; for BG, HR and RS to 2008-2015; for ES to 2010-2015; for LU to 2012-2015

Source: Eurostat, ESSPROS data by scheme and authors' calculations

These significant changes have been policy-driven. In Italy, the shift towards government funding (81% in 2015 as against 52% in 2005) reflects the general expansion of public expenditure in this policy area, financed from general taxation. As of the mid-2010s, a new set of measures – not directly linked to the individual's employment conditions – were introduced to foster childcare provision, mainly paid through government revenue (e.g. the introduction of a monthly “bonus” of EUR 80 for employees on medium-to-low incomes). Meanwhile, there has also been a reduction in the employers' contribution rate for family allowances – from 2.48% in 2005 to 0.68% in 2015.

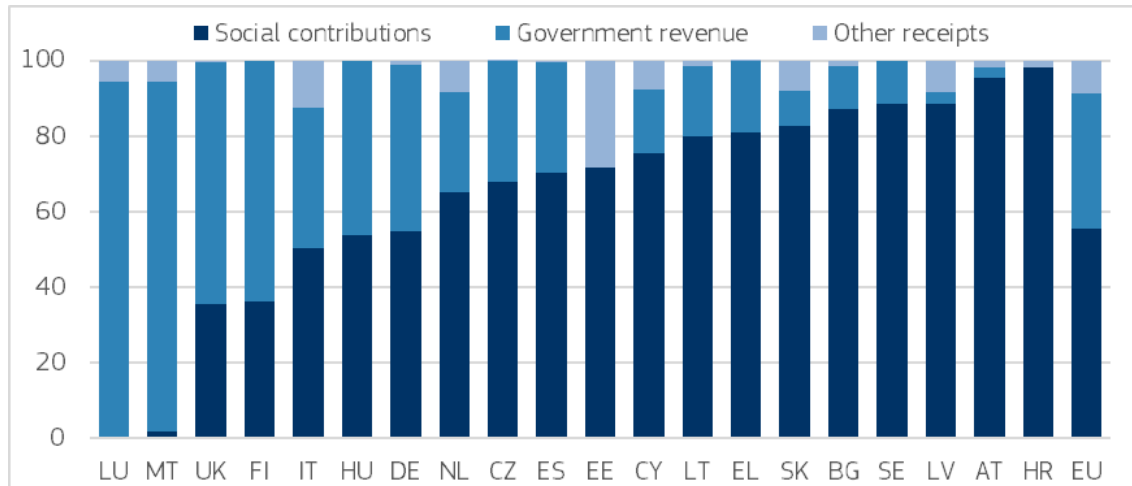
The Netherlands has re-designed family benefit schemes and implemented new ones. The (income-related) child tax credit was replaced by an allowance in 2008, which was subsequently replaced by the child-related budget from 2009 onwards, increasing the government's share of financing. Poland has also expanded family benefits (see also Section 1.3.3) mainly based on government funding.

In Latvia, there was a significant change in the composition of financing between 2005 and 2008: the proportion coming from social contributions rising from 15% to 53%. This was attributable to the introduction of contribution-based parental benefits in 2008. The share then fell to 36% in 2010, as a result of the capping of parental benefits (in 2010-2014).

In Lithuania, the funding of family benefits is mixed. The share coming from social insurance contributions increased from 27% in 2005 to 47% in 2010. This was due to the increased generosity of contributory childbirth-related benefits compared with non-contributory family benefits. First, one month's paid paternity leave was introduced in 2006 at a rate of 100% of the insurance base, with ceilings. Secondly, paid childcare leave was extended in 2008 to two years at a rate of 100% for the first year and 85% for the second. In the case of unemployment benefits, financing comes predominantly from social contributions in most EU countries. On average in the EU, however, contributions accounted for only around 55% of total funding in 2015, reflecting the significant share of financing from taxation in Germany, the UK and Italy (Figure 52). Nevertheless, there are only 4 countries — Finland, the UK, Malta and Luxembourg – in which the share of social

contributions is less than 50% (in Luxembourg, it is zero because virtually all financing comes from taxation).

Figure 52 Division of financing of unemployment benefits by main source, 2015 (% of total financing of unemployment benefits)



Source: Eurostat, ESSPROS data by scheme and authors' calculations

While in Germany, Finland, Malta and the UK, the unemployment benefit scheme comprises a non-contributory part (financed by government revenues), in Italy there are several derogations and arrangements according to the sector, enterprise and workers' status. In the UK, a significant share of funding comes from government revenue. This is partly because the Jobseeker allowance can be either contribution-based or means-tested and tax-funded.

In Germany, reforms implemented between 2003 and 2005 significantly reshaped the unemployment scheme. The long-term unemployed and unemployed social assistance recipients were transferred to a newly created benefit scheme: basic income support for job seekers. As a result, the share of those on unemployment insurance (financed by social contributions) has been steadily decreasing, while the share of those protected by tax-funded minimum income schemes is on the rise.

In Italy, as in many other countries, the breakdown of funding for unemployment benefits fluctuates with the macroeconomic situation and labour market conditions. Moreover, social contributions for unemployment benefits and wage supplements for working time reduction vary widely depending on several factors: sector, enterprise size, status of employees. Nevertheless, certain reforms have affected the financing mix, such as the abolition of a derogation for employers and, in 2012, the scrapping of the "mobility allowance" (a more generous type of unemployment benefit usually paid to employees of large firms, annual spending on which was much higher than the revenue yielded by social contributions). The employers' rates for fixed-term contracts have also been increased. As a result of this set of reforms, the share of social contributions in total financing rose from 35% in 2005 to 50% in 2015.

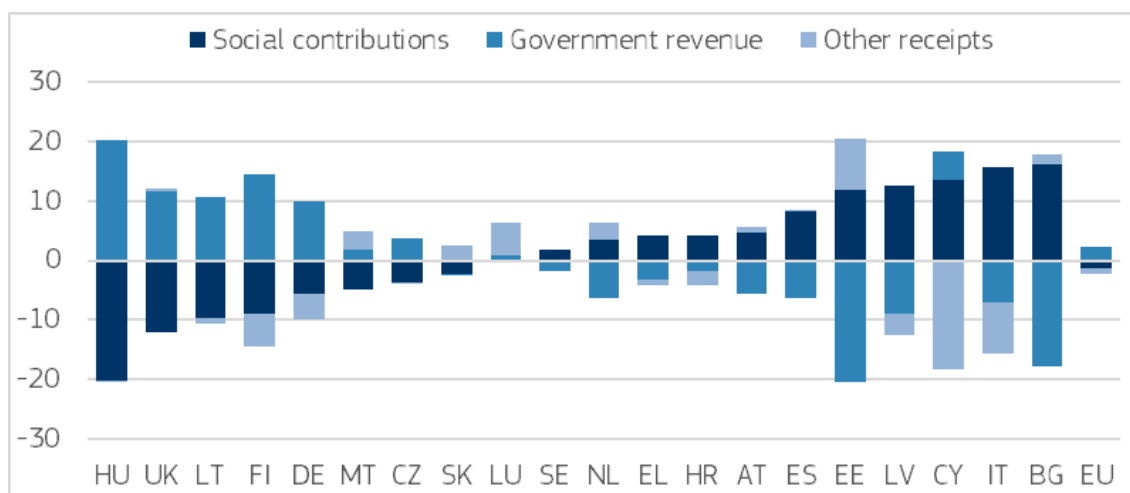
Over the period 2005-2010, there was a marked shift, on average, in the financing of unemployment benefits from social contributions to taxation (the share of the former declining by 8 p.p.), linked to a large extent to the global recession which pushed unemployment up sharply. In Latvia, the Netherlands, Slovakia and the UK, the share of financing from contributions declined by

10 p.p. or more, in Germany by over 20 p.p. and in Lithuania, by over 30 p.p. On the other hand, it increased by 10 p.p. or more in Cyprus, Sweden, Estonia, Bulgaria and Italy, in the last two by close to 20 p.p.

Over the subsequent five years (2010-2015), there was a shift, on average, in the other direction, the share of funding from taxation declining and the share from social contributions increasing (by 6 p.p. on average) as unemployment came down and the relative number of people supported by unemployment assistance declined. The shift was particularly marked in Germany and the Netherlands (the share of funding from contribution increasing by 17-18 p.p. in the two), and even more, in Latvia and Lithuania (where the increase was in both case around 23 p.p.). Indeed, in all the countries, except the UK, where the share of funding from social contributions had declined greatly in the preceding five years, it increased markedly between 2010 and 2015, offsetting the earlier reduction and returning the pattern of financing much to what it was before the recession. On the other hand, in the countries where the share of contributions had risen in the five years up to 2010, there was no significant decline in the following years, except in Sweden.

The result of these changes over the two five-year periods is that there was relatively little shift in the mix of financing of unemployment benefits in the EU on average over the period 2005-2015. However, there were marked increases in the share of financing from social contributions in Bulgaria, Estonia, Italy, Cyprus and Latvia (of over 10 p.p. in each case) and marked reductions in the share in the UK (by 12 p.p.), Hungary (by 20 p.p.) and, to a lesser extent in Lithuania and Finland (by 9-10 p.p.), (Figure 53).

Figure 53 Changes in the division of financing of unemployment benefits, 2005-2015 (percentage point change)



Note: Change for EE and UK relates to 2007-2015; for BG, HR and RS to 2008-2015; for ES to 2010-2015; for LU to 2012-2015

Source: Eurostat, ESSPROS data by scheme and authors' calculations

In sum, there was a widespread shift in the financing of unemployment benefits from social contributions to taxation in the 2005-2010 period, as a result to a large extent – as confirmed by the ESPN teams – of the global recession and the consequent reductions in employment which reduced the contributions base and necessitated an increase in funding from taxation. This, for example, is evident in the Netherlands, where the reduction in the contribution base was intensified by the scrapping of employees' contributions in 2009, with a view to boosting their income. There

was then an adjustment back towards the pre-crisis position in in most countries in the years after 2010.

Unemployment social insurance funds went into deficit in many countries during the crisis period, due to the increasing number of beneficiaries, and accordingly, to increasing expenditure (e.g. BG, NL, LV, PL). Their income from contributions has only recovered in recent years. For example, in Poland (for which ESSPROS data by scheme are not available), expenditure on both unemployment benefits and active labour market policies increased during the economic slowdown in 2009-2010, which led to a deficit for the Labour Fund. While the financial situation eased in the subsequent years, the growth in employment and wages was not sufficient to finance expenditure until 2017. In Bulgaria, unemployment fund deficits are still being covered by general taxation, despite the rise in the share of financing from contributions since 2005. In the Netherlands, because of the crisis and the rising number of benefit recipients, the deficit of the unemployment fund continued to expand after the global recession: from €3 billion in 2012 (around 0.5% of GDP) to €13 billion in 2015 (close to 2% of GDP and more than expenditure on unemployment benefits). As a result of the subsequent economic recovery, the number of benefit recipients has declined and the social contribution rate for unemployment has been progressively raised from 2.1% in 2015 to 3.6% in 2019. As a consequence, the deficit on the fund was reduced to €0.9 billion at the end of 2018.

In the case of housing benefits, financing comes entirely, or almost entirely, from taxation in all Member States apart from Greece, where 97% of financing came from contributions in 2015, which was much the same as in earlier years. This was because financing concerned mainly specific work-related social housing schemes geared to low income workers, which were self-financed by special social insurance supplementary charges on wages, partly paid by the employer and partly by the employee. The revenue from social contributions was raised solely from employees in 2015, whereas in 2010, around 40% came from employers.

In the case of social exclusion and benefits not included under other functions (minimum income guarantee and social assistance, especially), financing also comes wholly from general taxation in nearly all countries. The two main exceptions are Estonia, where around 10% of funding came from social contributions in 2015, and Czechia, where 39% did so. There is also some funding from contributions in Italy and Finland, but it accounted for less than 3% of the total in 2015 and Germany, Cyprus, where it accounted for less than 1%. Apart from in Czechia, where the share of contributions increased over the 5 years before 2010 (by 11 p.p.) and declined slightly over the subsequent 5 years, and Estonia, where the share declined a little before 2010 (by 4 p.p.), there was very little change over the 2005-2015 period.

The contributions for funding social exclusion benefits in Estonia came entirely from employers in 2015 and earlier years, while in Czechia, just over 80% came from employees in 2015: much the same as in 2010.

3.3 Changes in the financing mix in EU Candidate countries and potential Candidates by function

Old-age benefits

As in the EU countries, the share of funding from social contributions declined slightly over the period under scrutiny in most EU candidate countries and potential candidates, and in particular

during the crisis. Contrary to the EU countries, the share from government revenue has not been increasing and has even fallen in some cases.

This is so for Turkey and Serbia, for which there are ESSPROS data. In Turkey, the share of social contributions increased significantly, by 9 p.p., over the period under examination (2005-2016) while the funding share from government revenues fell by around 7 p.p. The slide in the share coming from general government contributions, largely made up of earmarked taxes, halted for a time in the period 2008-2010, possibly as a result of the fiscal measures taken to counter the effect of the global financial crisis which reduced GDP. The major factors explaining the increased share from social contributions are the retirement reforms in 1999 and 2006 (increase in the pensionable age and reduced pensions) and the healthcare reform. In Serbia during the period 2008-2010, the share of social contributions fell by 3.5 p.p., and government revenue funding increased by 5.5 p.p., in order to cover mounting deficits. This was reversed after 2010.

Lastly, in the two parts of Bosnia and Herzegovina (BiH), the main changes in financing occurred during 2009-2011 as a result of fiscal consolidation measures introduced to control government expenditure. These included reductions in salaries and social transfers at all levels of government. Still, despite austerity measures, spending on non-contributory social transfers has over the years remained stable at approximately 4% of GDP. Financing of social insurance schemes was affected by reductions in employment and changes in the social contribution rates in 2009. An increase in employment, especially since 2014, has secured a steady inflow of revenue for social insurance funds. However, the revenue from contributions together with meagre government financing was not sufficient to match the expenditure needs of the social insurance funds. Legislative changes from 2015 in Republika Srpska (RS), and 2018 in the Federation of Bosnia and Herzegovina (FBiH), abolished the extra-budgetary independence of the pension fund. As a result, in Republika Srpska since 2016 the pension fund has fallen under the Government treasury system, whereby the Government guarantees the payment of pensions. In FBiH the same measure is to be implemented within two years of adoption of the law.

In the EU candidate countries and potential candidates, as in the EU Member States (except for Kosovo*), pension funds are financed by social contributions (from both employers and employees). Their share in pension-funding ranges from 74% of pension receipts in Montenegro in 2017 to virtually 0% in Kosovo*, where government revenue is the main source of financing of all pensions. However, an on-going reform establishing a contributory pension scheme in the country stands to change the financing mix.

In several Central and Eastern European countries, there has been a slight progressive increase in the share of government revenue funding for pension schemes, covering increasing deficits (ME, MK, RS, TR; see also Box 14 on reforms).

Box 14 Reforms affecting the financing mix of pensions in EU Candidate countries and potential Candidates

Albania

The pension system in Albania underwent a thorough reform in 2014, creating a closer link between contributions and benefits by removing the caps on pension benefits, so creating more incentives for employees to participate in the scheme. A social pension financed by government revenue was first introduced in 2015. The fiscal sustainability of the pension scheme has gradually improved, and numbers have increased. The changes introduced to the scheme aimed to enhance employee incentives to contribute, by increasing the rate of return on contributions (i.e. lifting the previously stringent caps on maximum pension benefits). The retirement age is also to be increased gradually for both women and men, and will reach 67 years of age, with a contribution period of 40 years for all full pensions, by the year 2056.

Bosnia and Herzegovina

In the Federation of Bosnia and Herzegovina (FBiH), the increase in expenditure on old-age pensions, and especially in financing from general government revenues, was linked to the payment of generous veteran pensions. The FBiH pension fund's financial position was aggravated further by a significant increase in the number of pensioners, including war veteran pensioners, in the pre-crisis period. Together with changes to the Law on Contributions in 2009, which reduced the social contribution rate for pensions and disability benefit, this has forced government to secure more financing for the pension fund.

Unlike FBiH, the Republika Srpska kept the growth in the number of privileged beneficiaries under control, to some extent, as well as the corresponding expenditure. It should be noted that the Republika Srpska Pensions and Disability Act, in force from January 2012, introduced new, less stringent eligibility conditions. It also established additional conditions for those with 40 years of insurance, a points system to calculate the pension base for all pensioners, a war supplement for pensioners with war veteran status, etc.

Montenegro

There have been several attempts to reform the social contributions for pensions, but government transfers to the Pension and Disability Fund remain high, and amounted to 25-40% of total pension system expenditure in the period 2005-2018.

Serbia

As of 2012, Serbia implemented certain measures to contain pension expenditure and the growth of general government revenue for financing pensions. For example, it increased the pension insurance contribution rate by 4 p.p. and cut benefit payments. As a result, together with the economic recovery, the Pension fund receipts started to grow, and the deficit fell substantially.

Turkey

An important reform was implemented in 2006 which restructured the three independent institutions that offered retirement benefits to different groups of workers. A single public agency (SSI) was formed, in charge of the public provision of social security coverage and (non-contributory) social assistance payments to the whole of society, with a view to harmonising the rules. Moreover, the law stipulated that entitlement ages for women and men would be gradually increased after 2036, to reach 65 for both by 2048. It also modified the replacement rate.

Source: ESPN Country reports (2019)

Healthcare

Healthcare systems in the EU candidate countries and potential candidates are mostly financed by social contributions (BA, ME, MK, RS and TR). In Montenegro, in particular, social contributions make up the largest share of healthcare financing: 83%, with 17% coming from government revenue in 2017. In Kosovo*, however, healthcare expenditure is financed from government revenue, though a law introducing mandatory health insurance was passed in 2014 but has not yet been implemented (as mentioned in Section 1).

In Serbia, social contributions are the dominant source of healthcare financing; accounting for 66% of the total in 2016, and, unlike most countries under examination in the report, other receipts were the second largest source of financing (25% of the total). The main source of other receipts was transfers from other schemes: re-routed transfers from the Pension fund and from the National employment service (for beneficiaries of unemployment benefits). The third source was government revenue.

As regards the dynamics of healthcare financing, as in the EU Member States, the share of funding from social contributions fell over the period under examination; the share from government revenue rose, due to cost-containment measures and economic downturns, the major one being the global recession in 2008-2009. In Serbia, for instance, the share of social contributions declined by more than 6 p.p., while that of government revenue increased by 9 p.p. Similarly, funding from social contributions also declined in North Macedonia, by 5 p.p. over the period 2005-2017. In Albania, the share of social contributions funding rose from 26% in 2010 to 31% in 2016.

In some countries, the share of social contributions also fell due to reforms which reduced contribution rates for healthcare. For instance, in FBiH, social contribution rates for healthcare were reduced in 2009 by 0.5 p.p. In order to compensate for falls in the revenue of the pension and health insurance funds, a special 10% government contribution was introduced (of which 6% is earmarked for the Pension and Disability Insurance Fund and 4% for a Health Insurance Fund). This is payable on income earned on all types of atypical employment contracts and from that earned from one-off jobs, temporary work or similar. In Serbia, social contributions for healthcare were 6.5 p.p. lower in 2015 than in 2008. A combination of factors resulted in a constant decline in social contribution payments: accumulation of debts for unpaid contributions, reduction of the contribution rate by 2 p.p. in 2014, low employment rates and minimal growth of net wages over the whole period.

Many of these countries used the lever of social contribution rates to adapt to economic changes during the period. In Montenegro, a first wave of changes in 2005 and 2007 reduced the contribution rates for health insurance, but during 2009 and 2015 the rate was increased again (though, revenue from this source did not really increase). The changes in health insurance contributions were designed to encourage employers to take on staff.

In Turkey, in 2008 a comprehensive insurance-based public health insurance system aimed at achieving universal coverage was legislated; it was fully implemented in 2012 and covered the entire population. Although the new system had broader coverage, with a mean-tested full subsidy for low-income households, it was announced that 7 million people, about 9% of the population, failed to pay their social contributions in 2014 and could not pass the means-test and hence they

were without coverage. Reforms have also provided access to private providers and improved service quality from public providers.

4 STRENGTHS AND WEAKNESSES OF THE FINANCING MIX AND FUTURE SOURCES OF FINANCING: NATIONAL DEBATES

This section reflects on the main strengths and weaknesses of national social protection financing systems. As shown in the previous sections, the intensity of the challenges and the possible solutions depend on the specificities of national social protection models and do not enable a one-size-fits-all solution for financing social protection to be identified. However, whatever the social protection financing mix, there are clear common challenges facing all 35 countries considered here. The 35 ESPN teams were asked to reflect on these strengths and weaknesses using the following criteria⁵⁸: a) adaptability to demographic/economic swings; b) risk of evasion; c) distributive effects; d) work incentives and labour costs; e) vulnerability to structural changes in the labour market/new world of work; and f) administrative/collection costs. In this section we summarise the main reflections from the Country reports and set out some further insights and conclusions resulting from the analysis in the sections above.

4.1 Adaptability to demographic and economic changes

The above analysis and the 35 ESPN Country reports confirm previous assessments⁵⁹ of the challenge posed by demographic change, and notably of population ageing, for the future of social protection in Europe. These challenges were made more acute by the 2008 financial and economic crisis which struck at a time when in several countries the baby-boom generation began to retire. Almost all ESPN experts highlight the fact that the combination of demographic trends and the economic consequences of the crisis led to debates and, in many cases, the implementation of reforms on the financial sustainability of pension systems, in particular. Pension systems rely heavily on social contributions for financing, irrespective of the country's overall model of social protection funding (contributions-based or tax-based), a fact which makes these schemes particularly vulnerable to demographic and economic change.

Debates and reforms on how to handle demographic ageing and its impact on the financial sustainability of pension systems were focused, in most of the countries, on increasing pensionable age, tightening eligibility conditions, moving from defined benefit to defined contribution schemes and emphasising the "individualisation" of pensions by highlighting the importance of supplementary pensions (see Sections 3.1.3 and 3.2.1, European Commission 2018a).

On the financing side, ESPN experts in several countries (e.g. AT, BG, CY, CZ, EL, ES, FI, HR, HU, IT, LT, LV, MT, PL, SK) reported a change in the financing mix for old-age pensions, mostly a shift towards a larger share of financing from government revenue. Apart from the impact of population ageing and the increasing number of pensioners, there are three main reasons for these changes. First, the experts report that the crisis played a role by reducing the contribution base for PAYG pensions, linked partly to rise in unemployment and a reduction in wages in real terms. Second, the implementation of statutory funded pension schemes in several Central and Eastern European countries (mostly in the mid-1990s to the beginning of the 2000s) has led to increasing government revenue in the pension system, as the state had to intervene during the process of these schemes maturing. The latter situation has been extensively debated, and several (partly)

⁵⁸ European Commission (2015).

⁵⁹ European Commission (2015, 2018a, 2018c).

“reversal” reforms implemented in the past decade (e.g. in CZ, BG, HU, PL). The third reason for increasing government revenue in the pension system has been mainly linked to the introduction or improvement of certain “adequacy safeguards” after the crisis, such as top-up benefits/guaranteed pensions for pensioners (e.g. AT, BE, BG, CY, MT) and basic pensions (e.g. EL). The trend of introducing “basic pensions/benefits” for pensioners, funded by general taxation, may be followed in other countries. One example is the debate in Germany since 2018 on the introduction of a “basic pension” which may well be largely financed out of general taxation.

Examples of the adaptability of pension systems to demographic and economic change have been put forward in the Finnish and Swedish ESPN Country reports. The strength of the Finnish pension system is due to the role as a buffer played by the pension funds against the impact of structural changes and it can to some extent mitigate the imbalance between generations. Similarly, in Sweden, the pension system is equipped with mechanisms intended to absorb various kinds of economic and demographic shock, the pension funds also acting as buffers. However, the Swedish ESPN expert highlights the fact that the economic situation during the global recession showed that the system is not completely immune to severe economic shocks. The crisis had a significant impact on pension funds, which suffered an unprecedented decline at the same time as employment levels fell, which launched the “break” mechanism in the system (leading to a reduction in nominal pension levels which, however, was soon reversed).

Population ageing also triggers growing demand for healthcare, and increasingly, for long-term care services (which in most cases are largely integrated into the healthcare system). Governments have become increasingly involved in the financing of healthcare but also of long-term care, as the latter is funded mainly from taxation (except in Germany, Luxembourg and Flanders⁶⁰). In general, debates on the possibility of making people contribute (through social contributions) to their future long-term care needs have to date been few (PL is an exception).

Economic fluctuations have had an important impact, mostly on the expenditure side of social protection systems. Most ESPN experts from Bismarckian systems highlighted the fact that the heavy reliance on social contributions is one of their country’s social protection systems’ main weaknesses in adapting to economic fluctuations. A prominent example are unemployment benefits, which are in most cases, entirely based on social contributions and which were particularly affected by the economic downturn, triggered by the financial and economic crisis. In general, countries applied a counter-cyclical approach to financing unemployment benefits, letting the government cover the extra expenditure through borrowing to prevent increased financial pressure on employers and employees and so avoiding a further economic downturn.

Other countries (e.g. HU, LV) reacted to the growing expenditure on benefits by tightening eligibility conditions and reducing the duration of receipt of benefits. In some countries the crisis fostered debates on the design of unemployment schemes. For instance, the Swedish ESPN experts point to the recommendations by the National Institute of Economic Research, which —while acknowledging that automatic stabilisation mechanisms (such as unemployment benefits and buffer pension funds) have been stable at least since 2009 — also points to the need to tighten unemployment insurance even further in order to strengthen its automatic balancing function. Also in Sweden, the ESPN Country report explains that the economy has been fuelled by domestic

⁶⁰ In this Belgian federated entity, long-term care is financed by earmarked social contributions.

demand over the past decade, which contributed to the quick recovery after the global recession. An important component in domestic-led economic growth has been population increase, driven by mainly refugee-related inward migration. (The country has a special regime for temporary labour immigration for third-country nationals, which has increased workers in both low-skilled and high-skilled occupations.)

4.2 The risk of revenue evasion

Several ESPN experts, especially those from Central and Eastern European countries (BG, HU, HR, LV, LT), EU candidate countries and potential candidates (AL, BA, ME, MK, RS) and some from Southern European countries (CY, EL, IT), reflected upon the issue of tax and social contribution evasion as a significant challenge for the financing of social protection. Since in most of these countries contributions make up the largest share of social protection financing, evasion of contributions diminishes the financial resources available for various functions and means that an increased share of financing must come from government revenues.

Evasion can take place through two main factors: undeclared work and declaration of an income lower than that actually received. In some countries, evasion of social contributions and tax is estimated to be substantial, as the shadow economy is thought to be large (e.g. in BG, CY, EL, HU, IT). For instance, the Cyprus ESPN team refer to research which estimates that the shadow economy over the period 2005-2015 amounted to 32% of GDP, which is well above the estimated EU average of 21% of GDP in the same period. Similarly, the Greek ESPN Country report flags International Labour Organisation (ILO) estimates showing evasion of social contributions in Greece to be considerable in 2016, in line with estimates of the shadow economy amounting to around a quarter of GDP.

In addition, ESPN country teams in several Central and Eastern European Member States (BG, HU, HR, LV, LT), as well as in EU candidate and potential candidate countries (ME, MK, RS), point to the practice of employers declaring that workers are only paid the minimum wage – on which social contributions and taxes are paid – while they receive the rest of their wage “under the table” The Hungarian ESPN Country report points to “collaboration between employers and employees” in tax avoidance, or even tax evasion, which saves them large amounts in taxes. The gain is then shared by the two parties. In such cases, the issue is frequently less one of coverage of individuals (whether workers are insured against various social risks), but more of coverage of wages (whether contributions are fully paid).

The Hungarian team identifies the large tax wedge as one reason for this, although it has diminished over the past decade, especially through a reduction in employers’ contributions. They highlight research which finds that since 2010, these informal arrangements have been more frequent in establishments employing fewer than five people, while before, the practice also occurred in large companies. It is also the case that the number of workers earning the minimum wage in Hungary may be as much as 50% higher than the number captured by surveys. In Poland, legislative changes in recent years have attempted to reduce the phenomenon of un- or under-declared work, by, for example, widening the base for mandatory social contributions paid on income from civil contracts, but it is still an important policy issue. These findings run counter to previous assessments (e.g. European Commission 2015), which speculate that since social contributions are linked to contracts, they have a low risk of evasion.

It should be noted that tax evasion is, of course, not exclusive to the above-mentioned countries, and may be high irrespective of the social protection model in place. In 2017 after a wide political debate, the Danish parliament voted in a package of measures on combating work in the informal economy that included the possibility for the authorities to impose digital sales register systems and electronic logs and to hire third-party wage administration companies, evaluations of measures to combat informal work, and an information campaign. There has also been a reorganisation of the tax authorities, which have for years suffered depletion in staff and funding and have been plagued by scandals involving failing tax collection systems and tax fraud.

Finally some ESPN experts, mostly from Central and Eastern European Member States as well as EU candidate and potential candidate countries, noted that the low level of benefits (regarded as insufficient) appears to discourage contributions, resulting in a vicious circle. In this respect, the Swedish ESPN experts emphasise that the basic ideas underpinning the Swedish social security (a high-tax society which will always be prone to tax evasion), often seen as a “model” for others, was to create incentives for people to pay contributions in the expectation of higher benefits. Some ESPN experts also highlight the importance of preventing tax evasion by international companies (including through European coordination and even legislation). “Internationally coordinated efforts” would be needed in this regard, as governments face significant challenges over the taxation of corporations (Behrendt and Nguyen 2018).

4.3 Social redistribution

Social protection systems act as redistributive mechanisms in most economies (Cichon *et al.* 2004). ESPN experts reflected on the redistributive effects of their country’s social protection mix and indicated that these depend on several factors, including the design of tax and social contribution systems (progressive/regressive, the imposition of floors and ceilings, see Section 2.4), means-testing, taxation of social benefits as well as the interplay between income and consumption taxes.

In general, ESPN experts consider that the strength of their national systems depends, in particular, on the strong redistributive effects of PAYG pension schemes and healthcare systems. However, several experts point to the weaknesses affecting social redistribution, mainly with regard to the design of taxes and social contributions (e.g. AT, BG, EE, IE). In Bulgaria, the current taxation mix includes a regressive personal income tax and a high marginal tax rate on low earnings. In addition, there are no tax exemptions for low incomes, and the eligibility criteria for social benefits are restrictive. The Bulgarian ESPN expert points out that since there is an obvious trend towards increasing use of general taxation to fund social protection, one important challenge will be to make direct taxes more progressive. Similarly, the Irish ESPN expert considers that the flat-rate tax structure reduces the capacity of income tax to achieve targeting and redistribution of net benefits. This important aspect of the tax structure has implications for social protection financing, as currently social protection payments (with the exception of child benefit) are included in annual income for tax purposes.

In other countries, there have been reforms to change the design of tax schedules in order to make them more progressive. This is the case in Austria, where the ESPN expert emphasises the progressive effect of the income tax system, which was increased by the tax reform of 2008-2010. However, it seems to be largely offset by the regressive effect of social insurance contributions and indirect taxes. Debates on these issues are on-going and in 2019 the Austrian Federal Government announced that it would present details of a reform of social insurance contributions

and of income tax, intended to reduce the burden on low and medium incomes in order to make the system more progressive.

A personal income tax reform took place in Latvia in 2017 which introduced more elements of progressivity into the tax system. In France, the idea of merging generalised social contributions (*contribution sociale généralisée* (CSG), progressive taxes) with personal income tax (*impôt sur le revenu des personnes physiques* (IRPP), proportionate to income) is gaining importance in the public debate. The two underlying factors fuelling the debate are: a) the massive reductions in social contribution rates, in particular those paid by employers; and b) the way in which generalised social contributions have replaced a significant share of social contributions. In the opinion of the French ESPN expert, the idea of merging the above-mentioned taxes would be both fairer and more efficient, in other words, more progressive and more redistributive. In Estonia, in 2017, the government introduced health insurance contributions on behalf of non-working pensioners. Contributions were set at 7% of the state pension in 2018 and will gradually increase to 13% in 2022. With this decision, the government is diversifying the revenue base away from earmarked social contributions. In Greece, a special tax (the so-called “special solidarity contribution”) has been imposed, since 2011, on the income of those with an annual income of over €12,000, while, in addition, another tax (the “business fee”) has been imposed on the income of the self-employed.

Some ESPN experts also reflected on the role of floors and ceilings and the base for assessing income and point to important debates and reforms which took place in their countries (e.g. AT, BG, HU, PL, see Section 2.2.4). In general, it is mostly pension schemes and, to lesser extent, healthcare which have insurable earnings’ floors and ceilings. The design of social contributions – and especially the presence of earnings ceilings on insurable incomes (capped at a certain high-income level) – can reduce the opportunity for collecting more receipts. For instance, several reforms abolishing ceilings (e.g. CZ, HU, IE) took place during the period considered. Other countries broadened or increased the base on which contributions are paid (e.g. EE, IE, SI, PL). Currently, in France the debate on reforming the financing mix for social protection mostly relates to changes in the assessment base for social contributions, but no concrete proposal for extensive reform has emerged as yet.

The Latvian ESPN team reports the debates around the development of a “solidarity tax” (introduced in 2016) on income above the social contribution ceiling, the purpose of which was to maintain the same level of total labour taxes for high earners as for low and middle earners. The rate of the “solidarity tax” was the same as the rate for social contributions, and payment was split between employers and employees as for social contributions. The tax collected was directed to the state budget in 2016 and 2017 (not earmarked). However, in 2017 there was a legal challenge to the tax in the Latvian Constitutional Court, which brought about significant changes in its design. It now has the opposite effect from that originally intended: high earners paying proportionally lower taxes and at the same time accumulating pension rights from income above the social contribution ceiling.

Some ESPN experts (e.g. DE, IE, IT) also discussed the distributive role of tax expenditures, which are generally apply to pensions and family benefits. They conclude is that tax expenditures do not seem to have significant redistributive effects, as they generally benefit high to middle-income earners more than those on a lower income (who often earn too little to pay income tax anyway), unless specifically designed to take account of this. As an example, the Irish ESPN expert recognises that tax expenditures plays a role in the Irish social protection system (0.4% of GDP in 2013), but

refers to successive analyses which have found that one of their weaknesses is that they are not redistributive.

The Italian ESPN experts also point to recent reforms aimed at increasing fiscal welfare, in practice replacing part of direct social expenditure with tax expenditures. They indicate that this cannot be considered an optimal choice in terms of equity, since the beneficiaries tend to be concentrated in the middle-upper part of the income distribution. Conversely, the Czech ESPN expert considers that tax expenditures act as a hidden redistribution tool and significantly affect the income of some groups, such as families with children, and people with mortgages. However, he also notes that in other cases, the role of tax expenditures is only indirect or minor – as in the case of tax relief on supplementary pension savings, which affects the amount of these, although they are mostly not used to purchase a lifetime (or long-term) annuity.

ESPN experts also reflected on the different ways of strengthening the social protection financing mix by diversifying it in order to achieve better social redistribution; in particular, they discussed the role and the balance between income and consumption taxes. These help to shape the redistributive pattern of any tax and social benefit systems, but in opposite directions: consumption taxes tend to weigh less heavily on the richest while personal income taxes redistribute income (if they are progressive) towards the lowest incomes (for discussion see Cichon *et al.* 2004).

Consumption taxes can play an important role in social protection financing if allocated or redistributed for this purpose, as they are less affected by changes in the relative size of the working-age population. They tend, however, to be regressive if levied at a uniform rate, since lower-income households spend a greater share of their income on consumption. In some rare cases, governments have increased the value-added tax (VAT) on luxury goods (e.g. NL), while others have imposed taxes on alcohol and tobacco, which have then been allocated to health spending (e.g. in EL, FR). However very few countries use the lever of earmarked taxes for social protection (e.g. BE, FR, LU, see also Section 2.2.3). The Dutch ESPN Country report flags that the 2017 coalition government agreement has stated that taxation on labour will be reduced and the taxation on consumption will be increased. A previous government already increased the VAT on luxury goods from 19% to 21% in 2012. The current government subsequently increased the low VAT rate, which applies to food and some services, from 6% to 9% as of 2019. The underlying reason is to reduce taxation on labour and “to make work pay more”. According to the Dutch ESPN expert, another possible advantage, which is not explicitly highlighted by the government, is that the latter reform would enable diversification in the financing of the social protection system.

In Germany, in 2017 the Federal Ministry of Labour and Social Affairs published a short report on ‘value-added tax as a possible financing component of social security’, but a debate on this has not yet got under way. In France, as well as the above-mentioned debate on merging personal income tax and the general social contribution, there has been also a debate on finding new forms of revenue, which has focused lately also on the use of value-added tax. The Portuguese government and the Portuguese Social and Economic Council have restated the need for a more detailed debate regarding diversification of the funding of the social security system. Over time, proposals have been made on how to address challenges in financing by widening the contribution base to factors of production or to consumption. These include proposals such as: an increase in VAT and/or the elimination of the reduced VAT rate for basic products; the creation of a new direct tax levied on all sources of income, including on social benefits and capital; the creation of a new

indirect tax levied on companies' gross receipts; and increased taxation of the profits of large companies.

The above-mentioned debate on taxing property and corporations is also referred to by other ESPN experts, who suggest that the financing mix of social protection could be diversified by taxing property (potentially) and capital (corporations), especially if the revenue produced is earmarked for social protection (e.g. AT, IT, LU). With the rise of the digital economy and automation of work, there have been debates on taxing robots and technology, and more generally on shifting taxation from labour to capital (ILO 2018, Behrendt and Nguyen 2018). Thomas Piketty (2014) and Guy Standing (2016) have predicted that capital will increase in importance relative to labour in the distribution of income and that precarious employment will expand. If these predictions materialise, though they may be several decades in coming to fruition, it may become difficult to finance social security from payroll taxes or contributions alone. The Italian ESPN experts reflect on the fact that property tax could be increased – as repeatedly suggested by the Commission and the Council of the EU in Country-specific Recommendations (CSRs). Similarly, the Lithuanian ESPN team notes that international institutions, including the Commission and OECD, have criticised the high tax burden on the employed, compared to under-developed real estate and property taxation, as well as identifying loopholes in personal and corporate income tax systems. The Portuguese ESPN team also refers to a 2018 report which analysed the impact of a new funding model, based on the extension of the social security funding base, to include not only salaries but also the net value-added of companies liable for corporate tax.

These more general reflections can also be linked to the growing research on pre-distributive policies which together with redistributive policies, may contribute to a more equal distribution of economic power by *“treating the root causes of inequality, i.e. of an unequal distribution of resources and life chances, before they set in”* (Saraceno 2019: 39).

4.4 Vulnerability to structural changes in the labour market

ESPN experts also reflected on the challenges faced by social protection financing mixes with regard to structural changes on the labour markets, particularly the increase in self-employment in some countries (e.g. ES, IT, ES), short-term contracts and more generally “new forms of work” related to digitalisation and the growing importance of the platform economy.

Debates and reforms have taken places in several countries granting access to some categories of worker previously excluded (e.g. AT, PL, MT, SI). For example, in Slovenia, in response to structural changes in the labour market, the government has applied the “all work counts” principle since 2015, and has made payment of social contributions compulsory for all non-standard forms of employment. Similarly, in Austria over the past two decades, strong efforts have been made to make “all types of earned income from employment” subject to statutory insurance and social contributions. Poland has also included some forms of non-standard work in the social security system, such as the so-called “civil contracts”.

However, in many cases, workers in these new labour situations are granted exemption or pay lower contribution rates if they earn below a certain amount. Moreover, there have been important concessions granted to employers, exempting them from (part of) their share in the financing. For example, there has been an on-going debate in Bulgaria, encouraged by strong pressure from the employers, on making changes in the legislation to facilitate on-demand short-term hiring.

Employers have suggested extending the “one-day” contracts introduced in agriculture in 2015 to other sectors of the economy. In Portugal, the prevalence of short-term contracts has been increasing (ranked third in the EU), and has placed additional pressure on the unemployment protection system. In this context, there is an on-going debate on how to ensure more sustainable financing, especially for the unemployment protection system, while simultaneously reducing the incentive for companies to resort to excessive staff turnover on short-term contracts. In June 2018, the Portuguese government and social partners agreed on a set of measures which not only are aimed at fighting precariousness and reducing labour market segmentation, but also include the establishment of an additional social security contribution for employers whose annual use of temporary contracts is greater than the average in their sector.

ESPN experts also reflected on the growing importance of other structural changes which may impact social protection systems, such as “new social risks” (e.g. the situation of single parents). This may be considered a problem because of the already recognised or anticipated need to increase support for social services, childcare, active labour market policies, social housing and social inclusion. For instance, the Irish ESPN expert notes that a comprehensive statistical analysis of the components of the change in social protection expenditure showed how, for example, the simple demographic pressure of growing numbers of lone-parent families exerted an upward pressure on spending.

Several countries have been trying to address, mostly through general taxation, challenges linked to new social risks relating to parenting and childcare (e.g. IT, NL, LT, LV, see Section 3.2.3) and housing.

4.5 Labour market costs and work incentives for low-income earners

There has been a clear general trend towards reducing labour market social protection costs. First, as shown earlier in this report, there has been a shift (2005-2016) in social protection financing from employers to employees, though this is particularly concentrated in the period before 2010. There are still on-going reforms in this direction in some countries. In several Member States, social contribution rates have been falling and employers have been granted exemptions from paying contributions. In tax-based social protection financing models, the tax wedge (the difference between before-tax and after-tax wages) has been reduced over time.

ESPN experts focused mainly on weaknesses relating to work incentives for low-income earners. Drawing on previous research, they confirm that increases in the tax wedge and high social contributions may adversely affect the incentive to work of vulnerable groups (i.e. low-skilled workers, single parent and second earners), but are not expected to substantially affect the labour supply of high-skilled workers or single women without children. In this respect, exemptions and income floors appear to be viable ways to reduce negative effects on the incentive to work. However the latter should be discussed with reference to the general financing mix and the abolition of certain insurance earnings ceilings, in order to ensure the sustainability of the system.

The Austrian ESPN expert highlights the fact that the tax wedge on labour costs (i.e. the total tax rate on low-wage earners) in his country is one of the highest in the EU (45% in 2016 while the EU-28 average was 38%) and has been rising continuously in Austria since 2009. The high tax and contributions rate may not only have adverse effects on employment growth, but also on individual work incentives, especially for low-income workers. Similarly, the Cyprus ESPN experts indicate that

an increase in the tax wedge is expected to damage considerably the labour supply of the more socially vulnerable groups (i.e. low-skilled workers, single parents and second earners). In Greece, where social contribution rates are also considered high; they are thought to have a negative impact on labour costs and to foster evasion. The same is true in countries, mainly in Central and Eastern Europe, with lower labour costs. In Hungary, the social contributions levied on labour income make up about two thirds of the revenue for financing social protection. Recent years have seen two opposing dynamics. The current government, which took office in 2010, is resolute about “building a society based on labour”, which has led to an effort to reduce the tax wedge on labour, including lowering contribution rates, while at the same time increasing taxes on consumption.

In other cases, there have been several reforms reducing the labour costs. The Danish ESPN expert notes that tax reforms over the last 25 years have reduced marginal tax rates on income from work and broadened the tax base by reducing the scope of tax allowances. A recent study by the Danish Economic Council found significant reductions in marginal tax rates for all groups from 1994 to 2018 and emphasises that the economic incentives to work will continue to increase in the coming years, as a result of various reforms being phased in. In France there has been an increase in the *crédit d'impôt salarié* (CIS) – an existing tax credit that targets lower incomes. The CIS helps to increase work incentives (particularly by alleviating the so-called “poverty trap”) and would directly address some of the adverse economic consequences of higher social contribution rates – for instance, their impact on unit labour costs, as well as the regressive nature of social contributions in terms of distribution.

Over the period 2005-2015, the observed increases in the tax wedge are mostly the outcome of increases in social security contributions, since revenue from personal income tax remained relatively stable. In Estonia, high taxation of employment has also led to discussion of work incentives relating to the fact that it is more expensive to hire a part-time worker than a full-time one. There, has, therefore, been debate over whether to change the conditions and extend tax incentives for some affected groups, for whom part-time work may be necessary (e.g. parents of children up to seven years of age or people not in employment, education or training, NEETs). Analysis shows that in the short term, this may reduce tax revenue, but in the longer term, the expectations are that if employment increases, so could revenue. Similarly, the Dutch ESPN team points out that policies are targeted at people with lower incomes, for instance women with young children are quite effective. Several such measures exist, such as the childcare allowance and the income-dependent combination tax credit.

Finally, in countries where means-testing plays an important role (e.g. IE, UK) the ESPN experts warn about the potential disincentives to work for low income categories of worker. The Irish ESPN expert indicates that the strength of means-tested schemes is their capacity to target recipients on the basis of income (social redistribution). However, he points to analyses showing that widespread means-tested provision has potentially negative consequences because it might encourage non-employment and social exclusion. He notes that a systematic adjustment of contribution rules that maximise the use of insurance benefits (as compared with means-tested allowances) may mitigate this “emerging” weakness of social protection.

4.6 Administrative costs

The ESPN experts were asked to report on whether administrative costs constitute a weakness for the social security system of their country. In general, they do not find a significant effect on the

financing of social protection. In Bismarckian systems in particular, social security contributions are collected at company-level, so administrative costs for the government are low. In Latvia, the State Social Insurance Agency handles the task extremely cost-efficiently: in 2016, administration costs accounted for 1.4% of all social protection expenditure (EU-28: 2.7%). In Austria too, the administrative and collection costs of the social insurance system are equally low: in 2016, they amounted to just 1.5% of statutory pension insurance spending. Similarly, consumption taxes are relatively cheap to collect, as long as no special administration is needed.

Some ESPN experts (e.g. BG, SE), however, point to the funded component of the pensions system, where administration costs have been an issue. For instance, in Sweden, the fund management costs of private providers have been at a level where they eventually adversely affected pension levels. However, here too, the state regulator has put pressure on fund managers and administrative costs have been lowered. Similarly, the Bulgarian ESPN expert reports that private pension funds up to now have demonstrated a less than impressive performances, combined with high administrative costs. The situation compelled the government to allow people insured to switch between the private funded pension funds and the public unfunded pension system. In Slovenia, high administrative costs (10.6% of the cost) for voluntary health insurance have been cited as one of the main reasons for the abolition of complementary health insurance.

4.7 Conclusion: strengths and weaknesses in the financing mix for social protection

This report concludes that, in general, the financing mix for social protection systems has remained relatively stable over recent years. Bismarckian social protection systems remain heavily based on social contributions. At the same time, tax-based systems, such as those in Denmark and Sweden, have increased their basic emphasis on government financing.

However, some important changes should be underlined. The starting point of the Synthesis report was the observation that generally, the share of social contributions in total financing has declined while that of government revenue has increased over recent years. The main fall in social contributions occurred before 2010, in part during the recession years but also before. There was certainly an increase in government revenues which occurred in response to the financing gap caused by the economic recession, and with a view to covering the resulting shortfall in revenue from contributions (mainly in pensions and healthcare). However, the changes were mainly a result of policy reforms rather than a reduction in the earnings base on which contributions are levied. In particular, first, in many countries the social contributions paid by employers were reduced to lower the costs of employment and production costs more generally. Secondly, governments in Central and Eastern Europe, especially, have been compelled to increasingly finance social protection from taxation as a result of several stop-and-go reforms, especially in the pension and healthcare systems. Thirdly, there have been interesting cases of “recalibration” and “updating” of Welfare States (Pierson 2001), financed by increasing government revenue in the social protection financing mix, and bringing welfare systems into line with new developments and demands for social protection. New and redesigned family benefits have been introduced, in some cases specifically targeting single parents. At the same time, social protection systems have been updated in some countries by extending entitlement to the self-employed and those in new forms of work, while cost containment policies have been applied to pensions and healthcare, especially, but also to other benefits.

During the present period, traditional approaches to the financing mix of social protection systems — mainly reliance on social contributions for Bismarckian countries — have been challenged by new labour market and structural developments (e.g. population ageing), and government revenue has been required to fill the gaps. However, it is difficult to conclude as yet that countries face a turning point in the financing of social protection: much depends on the opportunities to generate the revenue required by social protection systems in a context of demographic ageing, when more will need to be spent on old-age pensions, healthcare and long-term care. In response to this challenge, there have been some interesting reflections on increasing general government revenue⁶¹, by taxing corporate and property income and ear-marking these taxes for the financing of social protection.

⁶¹ According to the ILO (2017) classification, this is one of the one of eight options that are available to governments to generate additional resources for social protection.

REFERENCES

Baeten R., Spasova S., Vanhercke B. and Coster S. (2018) Inequalities in access to healthcare. A study of national policies, European Social Policy Network (ESPN), Brussels, European Commission.

Behrendt C. and Nguyen A. (2018) Innovative approaches for ensuring universal social protection for the future of work, Research Paper Series 2018.01, Geneva, ILO Future of Work.

Browne J. and Immervoll H. (2018) Have Tax-benefit Policies Become Less Inclusive?, Working paper series forthcoming, Paris, OECD Publishing.

Cichon, M.; Scholz, W.; van de Meerendonk, A.; Hagemeyer, K.; Bertranou, F.; Plamondon, P. (2004) Financing social protection Quantitative Methods in Social Protection Series Geneva, International Labour Office/International Social Security Association

Council of the European Union (1992a) Council Recommendation of 27 July 1992 on the Convergence of Social Protection Objectives and Policies (92/442/EEC), OJ, L 245, 26 August 1992.

Council of the European Union (1992b) Council Recommendation of 24 June 1992 on Common Criteria concerning Sufficient Resources and Social Assistance in Social Protection Systems (92/441/EEC), OJ L245 of 26 August 1992.

EPC (2001), Budgetary challenges posed by ageing populations: the impact on public spending on pensions, health and long-term care for the elderly and possible indicators of the long-term sustainability of public finances, Doc EPC/ECFIN/630-EN, Brussels: Economic Policy Committee.

Eurofound (2017) Exploring self-employment in the European Union, Publications Office of the European Union, Luxembourg.

European Commission (1999a), "A Concerted Strategy for Modernising Social Protection", Communication from the Commission, COM (99) 347 of 14 July 1999.

European Commission (2015) Pension adequacy report 2015. Current and future income adequacy in old age in the EU, (1), Brussels.

European Commission (2017) Tax policies in the European Union – 2017 Survey, Luxembourg, European Union, ISSN 2529-6701.

European Commission (2018a) Pension adequacy report 2018. Current and future income adequacy in old age in the EU, (1), Brussels.

European Commission (2018b) 2018 Employment and Social Developments Review, Staff Working Document, Luxembourg, European Union.

European Commission (2018c) Ageing report. Report jointly prepared by the EPC and the European Commission Services, Luxembourg, European Union.

European Commission (2019), Communication from the Commission. Annual Growth Survey 2019: For a stronger Europe in the face of global uncertainty, COM/2018/770 final.

European Commission and Social Protection Committee (2015) Social protection systems in the EU: financing arrangements and the effectiveness and efficiency of resource allocation. Luxembourg, European Union.

Eurostat (2016) ESSPROS Manual and User Guidelines., <https://ec.europa.eu/eurostat/documents/3859598/7766647/KS-GQ-16-010-EN-N.pdf/3fe2216e-13b0-4ba1-b84f-a7d5b091235f>

Eurostat (2017) Social protection statistics – net expenditure on benefits, Statistics Explained, December: https://ec.europa.eu/eurostat/statistics-explained/index.php/Social_protection_statistics_-_net_expenditure_on_benefits

Gerlinger, Th .(2018), “ESPN Thematic Report on Challenges in Long-Term Care, Germany”, European Commission, Brussels

Guillaud E., Olckers M. and Zemmour M. (2017) Four levers of redistribution: The impact of tax and transfer systems on inequality reduction, Working Paper Series 2017.695, Luxembourg, LIS.

International Labour organisation (ILO) (2017), “World Social Protection Report 2017-19: Universal social protection to achieve the Sustainable Development Goals”, International Labour Office – Geneva: ILO

Joumard I., Pisu M. and Bloch D. (2012) Tackling income inequality: The role of taxes and transfers, OECD Journal: Economic Studies, published online first.http://dx.doi.org/10.1787/eco_studies-2012-5k95xd6l65lt

Lorenzoni, L. Millar,J., Franco Sassi and Sutherland, D., “Cyclical versus structural effects on health care expenditure trends in OECD countries”, OECD Economics Department Working Papers No. 1507

Eric Marlier, Tony Atkinson, Bea Cantillon and Brian Nolan (2007) The EU and social inclusion. Facing the challenges, The Policy Press.

MISSOC (2019), Mutual Information System on Social Protection, <https://www.missoc.org/>

OECD (2016) Social expenditure update. (especially pp 6-8 on net social expenditure): <http://www.oecd.org/els/soc/OECD2016-Social-Expenditure-Update.pdf>

Ortiz I., Cummins M. and Karunanethy K. (2017) Fiscal Space for Social Protection and the SDGs: Options to Expand Social Investments in 187 Countries. ESS Document 48. Geneva, ILO Future of Work.

Pacolet, J. and De Wispelaere, F. (2018), “ESPN Thematic Report on Challenges in Long-Term Care, Belgium”, European Commission, Brussels

Pierson, P. (2001), *The New Politics of the Welfare State*, Oxford, 2001.

Saraceno Ch. (2019) “Retrenching, recalibrating, pre-distributing. The welfare state facing old and new inequalities” *Structural Change and Economic Dynamics* 51 (2019) 35–41

Social Protection Committee (SPC) 2017, Annual Report 2017, Review of the social protection performance monitor and developments in social protection policies, Luxembourg: Publications Office of the European Union, 2017

Spasova S., Bouget D., Ghailani D. and Vanhercke B. (2017) Access to social protection for people working on non-standard contracts and as self-employed in Europe. A study of national policies, European Social Policy Network (ESPN), Brussels, European Commission.

ANNEX 1

Table A.1 Changes in the ESSPROS price index for social protection expenditure and changes in the GDP deflator, 2005-2016 (Annual average % changes)

	2005-2008		2008-2010		2010-2016		2005-2016	
	ESSPROS	GDP	ESSPROS	GDP	ESSPROS	GDP	ESSPROS	GDP
EU28	1.9	1.8	0.0	0.1	1.2	1.3	1.2	1.2
Belgium	3.1	2.1	0.4	0.4	1.5	1.4	1.9	1.6
Bulgaria	6.1	8.6	0.7	0.8	1.1	1.9	2.6	3.8
Czechia	3.4	2.1	0.3	0.2	1.2	1.3	1.7	1.4
Denmark	2.3	2.9	0.7	0.6	0.8	1.0	1.5	1.7
Germany	1.4	0.9	0.3	0.4	1.3	1.6	1.2	1.4
Estonia	7.9	9.3	0.4	0.4	2.8	2.9	3.9	4.3
Ireland	2.7	1.4	-1.3	-1.3	1.2	1.3	0.7	0.4
Greece	3.8	3.8	0.7	0.5	-0.9	-0.7	0.9	0.9
Spain	3.5	3.1	0.2	0.1	1.0	0.2	1.6	1.0
France	2.3	2.4	0.0	0.2	0.6	0.8	1.0	1.2
Croatia	na	na	0.8	0.6	0.8	0.7	1.2	0.9
Italy	2.6	2.3	0.2	0.4	1.0	1.2	1.4	1.5
Cyprus	4.0	4.0	0.5	0.4	0.0	-0.2	1.3	1.2
Latvia	13.2	14.7	-1.4	-1.8	1.9	2.4	3.7	4.1
Lithuania	8.1	8.3	0.8	-0.2	1.6	2.0	3.5	3.2
Luxembourg	2.6	4.1	0.5	0.8	1.5	2.0	1.8	2.7
Hungary	5.1	4.6	1.1	1.1	2.1	2.5	3.2	3.2
Malta	2.5	2.8	0.8	1.1	1.5	2.1	1.9	2.5
Netherlands	2.4	2.3	0.3	0.2	1.0	0.7	1.3	1.1
Austria	2.2	2.0	0.4	0.5	2.1	1.9	2.0	1.8
Poland	2.9	3.1	0.9	0.9	1.2	1.2	2.0	2.0
Portugal	2.8	2.6	0.0	0.3	0.8	1.0	1.2	1.4
Romania	8.6	14.1	1.4	1.3	2.7	3.0	4.6	6.1
Slovenia	4.1	3.6	0.5	0.4	0.6	1.0	1.7	1.7
Slovakia	4.0	2.3	0.3	-0.1	1.4	0.4	2.0	0.8
Finland	2.7	2.2	0.6	0.4	1.8	1.9	2.1	1.9
Sweden	2.5	2.7	0.5	0.6	1.6	1.5	1.8	1.8
UK	3.2	2.8	0.5	0.5	1.7	1.6	2.1	1.9

Note: Figures in bold denote that the ESSPROS price index increased by more than the GDP deflator over the period by 0.5 p.p. or more. Shaded figures denote that the ESSPROS price index increased by at least 0.5 p.p. less than the GDP deflator.

Figures for Croatia for 2005-2016 relate to 2008-2016

Source: Eurostat, ESSPROS Database and National accounts.

ANNEX 2 ESSPROS TABLES

Table A.1a Share of gross expenditure on social protection in total GDP, 2005-2016

	% of GDP												Percentage point change			
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2005-2008	2008-2010	2010-2016	2005-2016
EU28	26.0	25.6	25.3	25.9	28.7	28.6	28.3	28.7	28.9	28.7	28.4	28.1	-0.1	2.7	-0.5	2.1
BE	26.8	26.6	26.2	27.7	30.0	29.4	29.7	29.6	30.1	30.2	30.3	29.8	0.9	1.7	0.4	3.0
BG	14.7	13.9	13.4	14.7	16.1	17.0	16.5	16.6	17.6	18.5	17.9	17.5	0.0	2.3	0.5	2.8
CZ	18.0	17.6	17.6	17.9	20.1	20.0	20.1	20.4	20.2	19.7	19.0	18.9	-0.1	2.1	-1.1	0.9
DK	29.5	28.4	29.1	28.9	32.7	32.4	32.1	32.0	32.5	32.8	32.3	31.6	-0.6	3.5	-0.8	2.1
DE	28.9	27.8	26.8	27.2	30.6	29.9	28.7	28.8	29.1	29.0	29.2	29.4	-1.7	2.7	-0.5	0.5
EE	12.5	12.0	12.0	14.7	18.8	17.6	15.6	15.0	14.8	14.9	16.1	16.6	2.2	2.9	-1.0	4.1
IE	16.8	17.1	17.6	20.2	24.1	24.8	24.2	23.6	22.6	20.6	15.8	15.8	3.4	4.6	-9.0	-1.0
EL	20.4	20.6	21.3	22.8	24.8	25.9	27.3	28.1	26.4	26.0	26.2	26.6	2.4	3.1	0.7	6.2
ES	20.1	20.0	20.3	21.4	24.4	24.6	25.3	25.5	25.8	25.4	24.6	24.3	1.3	3.2	-0.3	4.2
FR	30.7	30.7	30.4	30.8	33.2	33.2	33.0	33.8	34.2	34.5	34.2	34.3	0.1	2.4	1.1	3.6
HR	:	:	:	18.8	21.0	21.3	21.0	21.6	21.4	21.8	21.8	21.3	:	2.5	0.0	2.5
IT	25.3	25.6	25.7	26.7	28.8	28.9	28.5	29.3	29.8	29.9	29.9	29.7	1.4	2.2	0.8	4.4
CY	16.6	16.7	16.4	17.6	19.1	18.8	20.2	20.9	22.8	20.0	19.9	19.1	1.0	1.2	0.3	2.5
LV	12.2	11.9	10.6	12.1	16.8	18.3	15.3	14.4	14.6	14.5	14.9	15.1	-0.1	6.2	-3.2	2.9
LT	13.2	13.3	14.2	15.9	21.0	19.1	17.0	16.3	15.4	15.3	15.6	15.4	2.7	3.2	-3.7	2.2
LU	21.9	20.5	19.5	20.9	23.4	22.5	21.8	22.7	23.1	22.4	22.1	22.0	-1.0	1.6	-0.5	0.1
HU	21.4	21.9	22.1	22.3	22.7	22.5	21.6	21.3	20.8	19.8	19.4	19.2	0.9	0.2	-3.3	-2.2
MT	17.7	17.8	17.8	18.2	19.6	19.3	18.9	19.2	18.9	18.3	17.1	16.7	0.5	1.1	-2.6	-1.0
NL	25.5	26.3	25.9	26.1	29.0	29.3	29.9	30.6	30.8	30.6	29.9	29.5	0.6	3.2	0.2	4.0
AT	28.0	27.5	27.0	27.6	29.6	29.6	28.8	29.2	29.6	29.8	29.8	29.9	-0.4	2.0	0.3	1.9

	% of GDP												Percentage point change			
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2005-2008	2008-2010	2010-2016	2005-2016
PL	20.0	19.7	18.4	19.3	20.3	19.7	18.7	18.9	19.6	19.3	19.4	20.3	-0.7	0.4	0.6	0.3
PT	23.8	23.7	23.0	23.4	25.8	25.8	25.8	26.4	27.6	26.9	25.7	25.2	-0.4	2.4	-0.6	1.4
RO	13.4	12.8	13.2	13.7	16.4	17.4	16.5	15.4	14.9	14.7	14.6	14.6	0.3	3.7	-2.8	1.2
SI	22.6	22.3	20.9	21.0	23.7	24.4	24.5	24.9	24.7	23.9	23.7	23.3	-1.6	3.4	-1.1	0.7
SK	16.1	16.0	15.7	15.7	18.5	18.2	17.8	18.0	18.3	18.5	18.2	18.4	-0.4	2.5	0.2	2.3
FI	25.6	25.4	24.5	25.1	29.0	29.3	28.9	30.1	31.1	31.9	32.1	31.8	-0.5	4.2	2.5	6.2
SE	29.5	28.6	27.4	27.9	30.2	28.8	28.5	29.5	30.2	29.8	29.4	29.6	-1.6	0.9	0.8	0.1
UK	24.8	24.8	24.6	25.7	28.4	28.8	28.9	28.9	28.3	27.5	27.6	26.2	0.9	3.1	-2.6	1.4
RS	:	:	:	22.9	24.5	23.9	22.7	24.0	23.3	23.4	22.1	21.5		1.0	-2.4	-1.4
TR	10.6	10.8	11.1	11.4	13.5	12.8	12.3	12.5	12.2	12.1	12.0	:	0.8	1.4	-0.8	1.4

Note: No data for HR and RS for 2005, 2006, 2007; and for TR for 2016. For HR and RS, the percentage point change for 2005-2016 relates to 2008-2016. For TR, the percentage point change for 2010-16 relates to 2010-2015. There is a break in the series in 2007 for DK for HU in 2015, and for TR in 2008 and 2012.

Source: Eurostat, ESSPROS database

Table A.1b Gross expenditure on social protection in real terms (i.e. at constant 2005 prices), 2005-2016

	Index, 2005=100												Annual average change (%)			
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2005-2008	2008-2010	2010-2016	2005-2016
EU28	100.0	101.9	103.9	106.5	114.0	115.1	114.9	115.4	116.7	118.0	120.8	122.6	2.1	4.0	1.0	1.9
BE	100.0	100.9	102.3	107.2	113.4	114.3	116.2	115.8	118.1	120.3	123.1	122.7	2.3	3.3	1.2	1.9
BG	100.0	104.8	111.3	130.8	141.4	148.9	151.1	148.7	160.6	171.3	173.3	180.2	9.4	6.7	3.2	5.5
CZ	100.0	102.9	109.1	111.0	120.2	120.3	119.8	120.4	119.2	121.3	124.1	127.3	3.5	4.1	0.9	2.2
DK	100.0	100.0	103.8	103.9	110.2	112.8	112.1	112.5	115.8	119.5	119.6	118.6	1.3	4.2	0.8	1.6
DE	100.0	98.8	98.8	100.5	108.6	109.1	107.8	108.7	111.0	113.5	117.6	121.9	0.2	4.2	1.9	1.8
EE	100.0	109.2	120.5	137.4	150.9	143.4	137.1	136.5	137.8	143.8	158.8	169.3	11.2	2.1	2.8	4.9
IE	100.0	107.4	114.3	122.3	139.2	145.2	142.7	139.9	135.6	133.1	136.1	140.5	6.9	9.0	-0.6	3.1
EL	100.0	106.8	113.7	121.3	126.9	123.2	117.3	111.3	101.1	100.7	101.9	102.8	6.6	0.8	-3.0	0.3
ES	100.0	104.2	109.3	115.3	128.3	127.0	126.3	120.5	119.2	118.4	119.9	122.6	4.9	4.9	-0.6	1.9
FR	100.0	102.4	104.3	105.8	111.9	113.9	115.2	118.4	120.5	123.2	124.6	127.0	1.9	3.7	1.8	2.2
HR	:	:	:	100.0	103.4	102.4	100.2	99.3	97.3	99.7	102.4	104.3	:	1.2	0.3	0.5
IT	100.0	102.3	104.5	107.0	111.4	112.4	111.1	109.9	110.2	111.5	113.4	114.2	2.3	2.5	0.3	1.2
CY	100.0	105.0	108.9	120.5	128.1	127.3	136.1	136.4	139.7	120.2	122.6	124.1	6.4	2.8	-0.4	2.0
LV	100.0	110.8	114.4	122.2	138.7	147.8	132.6	129.9	136.9	138.4	147.5	152.3	6.9	9.9	0.5	3.9
LT	100.0	109.6	132.4	148.5	155.1	145.8	138.8	138.9	136.0	141.0	146.8	148.1	14.1	-0.9	0.3	3.6
LU	100.0	103.1	105.7	112.4	120.9	123.8	124.0	128.9	136.3	140.9	144.2	146.0	4.0	4.9	2.8	3.5
HU	100.0	106.8	106.9	108.5	103.9	102.5	99.3	94.5	95.6	96.4	98.4	100.1	2.8	-2.8	-0.4	0.0
MT	100.0	102.6	108.3	113.5	120.0	124.1	123.4	127.7	133.0	141.2	145.9	151.3	4.3	4.6	3.4	3.8
NL	100.0	106.5	108.3	112.1	120.8	122.5	125.0	126.5	127.0	126.9	127.5	128.8	3.9	4.5	0.8	2.3
AT	100.0	101.7	103.3	106.7	111.4	112.7	111.7	113.3	114.8	116.4	118.5	122.0	2.2	2.8	1.3	1.8
PL	100.0	104.3	105.7	115.0	125.5	124.6	122.3	124.2	129.2	132.5	144.6	153.8	4.8	4.1	3.6	4.0
PT	100.0	101.1	100.9	101.9	111.5	112.7	109.3	106.6	111.5	109.7	108.1	108.4	0.6	5.2	-0.6	0.7

	Index, 2005=100												Annual average change (%)			
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2005-2008	2008-2010	2010-2016	2005-2016
RO	100.0	107.5	127.4	148.5	166.7	170.9	165.3	156.5	157.0	161.1	167.8	176.7	14.1	7.3	0.6	5.3
SI	100.0	103.9	104.5	106.6	113.4	115.1	115.9	113.4	111.6	112.2	115.5	117.6	2.2	3.9	0.4	1.5
SK	100.0	105.1	112.9	117.4	128.3	132.4	130.4	131.1	134.1	138.9	142.0	147.4	5.5	6.2	1.8	3.6
FI	100.0	102.3	104.2	106.9	112.9	116.0	116.2	119.2	122.5	125.1	127.6	131.0	2.2	4.2	2.0	2.5
SE	100.0	101.5	101.2	102.6	106.2	106.5	107.2	110.5	114.4	115.7	120.0	124.3	0.9	1.9	2.6	2.0
UK	100.0	102.0	104.2	107.0	113.6	117.0	117.8	119.5	119.3	119.1	122.8	119.2	2.3	4.6	0.3	1.6
RS	:	:	:	100.0	103.7	101.0	98.2	102.3	100.9	100.1	96.7	98.3	:	0.5	-0.5	-0.2
TR	100.0	108.7	117.7	123.0	138.8	143.7	154.9	163.9	174.1	181.3	190.6	:	7.1	8.1	5.8	6.7

Note: No data for HR and RS in 2005, 2006, 2007; and TR in 2016. 2008=100 for HR and RS. For HR and RS, the annual average change for 2005-2016 relates to 2008-2016. For TR, the annual average for 2010-2016 relates to 2010-2015 and for 2005-2016 to 2005-2015. There is a break in the series in 2007 for DK for HU in 2015, and for TR in 2008 and 2012.

Source: Eurostat, ESSPROS database

Table A.2a Division of financing for social protection by main source, 2005-2016 (% total financing)

	2005			2008			2010			2016		
	Social contrib.	General govt. contrib.	Other receipts	Social contrib.	General govt. contrib.	Other receipts	Social contrib.	General govt. contrib.	Other receipts	Social contrib.	General govt. contrib.	Other receipts
EU28	58.68	37.84	3.48	55.68	38.35	5.96	54.90	39.37	5.72	54.51	40.39	5.10
BE	65.2	32.5	2.3	64.1	33.5	2.4	61.9	35.8	2.4	59.2	39.0	1.8
BG	60.7	36.1	3.2	54.0	44.5	1.5	47.0	51.2	1.8	52.1	46.3	1.6
CZ	78.3	20.2	1.5	76.4	22.0	1.6	70.6	28.1	1.3	73.9	24.7	1.4
DK	28.8	63.2	8.0	22.0	70.5	7.5	20.2	75.5	4.3	16.8	77.0	6.2
DE	63.3	34.7	2.0	63.9	34.3	1.8	62.7	35.5	1.8	64.8	33.5	1.6
EE	79.5	20.4	0.1	80.8	19.1	0.1	80.1	19.7	0.2	78.9	21.0	0.1
IE	39.3	54.3	6.5	38.1	57.5	4.4	33.0	62.6	4.4	38.5	58.8	2.7
EL	59.1	33.0	7.9	57.4	36.0	6.6	57.5	36.6	5.9	55.3	39.3	5.3
ES	63.5	34.3	2.2	62.0	36.6	1.3	55.2	43.3	1.5	55.8	42.3	1.9
FR	64.0	32.7	3.2	61.5	35.0	3.5	62.3	34.1	3.7	60.2	36.7	3.1
HR	:	:	:	66.2	32.2	1.6	60.0	37.2	2.8	58.7	38.5	2.8
IT	56.2	41.7	2.1	55.6	42.2	2.2	52.4	45.6	2.1	49.5	48.4	2.1
CY	39.8	45.8	14.4	40.7	49.0	10.3	39.5	51.8	8.7	45.3	49.8	5.0
LV	61.9	37.4	0.6	64.4	35.4	0.2	48.7	49.1	2.2	57.3	42.1	0.6
LT	61.2	38.2	0.6	64.3	34.9	0.8	65.4	33.6	1.0	75.6	23.6	0.8
LU	51.4	45.3	3.4	50.0	46.3	3.7	50.0	43.9	6.1	49.6	43.2	7.2
HU	61.4	34.7	3.9	62.3	36.3	1.4	51.8	36.3	11.9	69.5	30.5	0.0
MT	61.3	36.1	2.6	56.4	41.0	2.6	49.3	48.6	2.1	38.5	59.4	2.1
NL	69.3	17.7	12.9	69.0	19.2	11.8	65.7	23.4	10.9	62.9	23.0	14.1
AT	63.9	34.7	1.4	64.3	34.3	1.4	62.1	36.3	1.7	62.0	36.6	1.3
PL	61.9	21.4	16.7	60.5	17.4	22.1	58.4	22.0	19.6	67.2	18.9	13.9
PT	45.6	44.1	10.3	46.1	44.9	9.0	44.5	45.8	9.7	45.3	46.0	8.7

	2005			2008			2010			2016		
	Social contrib.	General govt. contrib.	Other receipts	Social contrib.	General govt. contrib.	Other receipts	Social contrib.	General govt. contrib.	Other receipts	Social contrib.	General govt. contrib.	Other receipts
RO	55.1	41.5	3.4	54.4	44.1	1.5	45.5	53.6	0.9	69.8	29.3	0.8
SI	67.1	31.6	1.3	69.0	29.1	1.9	65.6	33.2	1.2	68.2	30.6	1.2
SK	68.2	30.3	1.5	67.3	26.0	6.6	58.3	28.4	13.3	68.2	28.9	2.9
FI	49.7	43.4	6.9	48.5	42.9	8.6	47.8	46.2	6.0	47.1	47.9	5.0
SE	50.3	47.4	2.3	49.0	48.1	2.9	48.5	49.4	2.1	47.1	50.9	2.1
UK	48.8	49.6	1.6	36.8	47.2	16.0	40.2	42.5	17.3	38.2	48.8	13.1
RS	:	:	:	61.3	36.0	2.6	57.8	41.5	0.7	60.2	38.8	1.0
TR	42.4	48.8	8.8	45.8	44.8	9.4	47.3	45.1	7.5	:	:	:

Note: No data for HR and RS for 2005 and for TR for 2016. There is a break in the series in 2007 for DK for HU in 2015, and for TR in 2008 and 2012.

Source: Eurostat, ESSPROS database

Table A.2b Breakdown of social contributions by employers, employees, self-employed and benefit recipients, 2005-2016 (% total financing)

	2005				2010				2016			
	Employers	Employees	Self-employed	Benefit recipients	Employers	Employees	Self-employed	Benefit recipients	Employers	Employees	Self-employed	Benefit recipients
EU28	38.46	16.08	2.43	1.71	35.88	14.56	2.47	1.99	34.85	15.21	2.35	2.09
EU*	38.45	16.09	2.43	1.71	35.90	14.57	2.48	2.00	34.24	14.68	2.35	1.98
BE	43.4	17.3	3.3	1.1	41.6	15.8	3.2	1.2	39.4	15.1	3.3	1.4
BG	42.4	13.8	4.2	0.3	30.9	13.1	2.7	0.4	32.2	15.9	2.7	1.4
CZ	52.3	20.9	5.1	0.0	48.0	17.7	4.9	0.0	49.7	19.3	4.9	0.0
DK	10.3	18.5	0.0	0.0	11.8	7.8	0.7	0.0	9.6	6.6	0.6	0.0
DE	35.1	22.6	1.3	4.3	33.4	21.8	1.7	5.7	34.2	23.0	1.7	5.9
EE	79.0	0.4	0.0	0.0	77.4	2.7	0.0	0.0	77.8	1.1	0.0	0.0
IE	29.3	8.7	1.2	0.0	25.6	6.6	0.7	0.0	29.2	8.0	1.4	0.0
EL	33.0	20.0	6.0	0.1	33.8	17.3	6.3	0.0	32.2	18.8	4.3	0.0
ES	49.4	8.9	4.8	0.5	42.9	7.9	4.0	0.3	42.6	8.3	4.5	0.4
FR	44.6	13.0	3.2	3.2	43.2	12.2	3.5	3.4	41.3	12.6	3.1	3.2
HR	:	:	:	:	28.1	29.0	2.7	0.2	26.9	29.2	2.4	0.2
IT	41.0	9.1	6.0	0.1	37.6	8.7	6.0	0.1	34.8	8.3	6.4	0.1
CY	24.7	13.6	1.5	0.0	23.3	14.8	1.4	0.0	23.7	20.1	1.5	0.0
LV	45.7	16.1	0.1	0.0	36.0	12.6	0.1	0.0	40.7	16.5	0.1	0.0
LT	55.4	5.1	0.8	0.0	49.2	14.6	1.7	0.0	56.4	15.6	3.2	0.4
LU	26.9	20.4	2.3	1.7	26.5	19.6	2.0	1.8	26.4	19.2	2.3	1.8
HU	45.5	15.8	0.2	0.0	32.5	19.1	0.3	0.0	42.1	26.1	0.9	0.4
MT	42.9	14.9	3.4	0.0	34.5	12.0	2.9	0.0	27.3	9.0	2.1	0.0
NL	33.9	35.1	0.3	0.0	31.8	33.7	0.2	0.0	29.3	33.6	0.0	0.0
AT	37.0	21.7	2.9	2.3	36.3	20.7	2.7	2.4	36.0	20.7	3.0	2.3
PL	39.6	22.3	0.0	0.0	41.9	16.5	0.0	0.0	47.0	19.9	0.0	0.4

	2005				2010				2016			
	Employers	Employees	Self-employed	Benefit recipients	Employers	Employees	Self-employed	Benefit recipients	Employers	Employees	Self-employed	Benefit recipients
PT	30.6	12.3	1.6	1.2	30.0	11.9	1.6	1.0	29.8	12.3	1.7	1.6
RO	40.9	13.7	0.5	0.0	31.8	13.1	0.5	0.0	40.7	23.9	0.2	5.1
SI	27.3	32.6	2.9	4.4	26.8	31.5	2.7	4.6	27.3	32.9	2.8	5.2
SK	46.4	17.7	3.7	0.4	39.9	14.7	3.1	0.6	46.6	17.3	3.8	0.6
FI	38.4	8.6	1.7	1.0	35.7	9.3	1.8	1.0	33.8	10.3	2.1	1.0
SE	41.7	7.9	0.7	0.0	39.2	8.6	0.7	0.0	38.2	8.4	0.4	0.0
UK	34.8	13.3	0.7	0.1	30.6	9.2	0.3	0.0	28.2	9.5	0.4	0.0
RS	:	:	:	:	28.7	25.1	4.0	0.0	27.7	28.0	4.4	0.0
TR	23.6	13.8	3.7	1.3	23.8	16.7	4.2	2.6	:	:	:	:

Note: *EU excluding RO. No data for HR and RS for 2005 and for TR for 2015. There is a break in the series in 2007 for DK for HU in 2015, and for TR in 2008 and 2012.
Source: Eurostat, ESSPROS database

Table A.2c Division of General Government contribution by source, 2005-2016 (% total financing)

	2005		2008		2010		2016	
	Earmarked taxes	General revenue	Earmarked taxes	General revenue	Earmarked taxes	General revenue	Earmarked taxes	General revenue
BE	13.2	19.3	14.7	18.8	15.0	20.8	10.1	28.9
IE	3.4	50.9	3.5	54.0	4.8	57.8	0.0	58.8
EL	4.0	29.0	3.2	32.8	3.3	33.3	1.6	37.7
FR	19.2	13.6	23.5	11.4	23.4	10.7	24.0	12.6
LT	0.2	37.9	0.2	34.7	0.1	33.5	0.3	23.3
LU	3.2	42.0	2.9	43.5	2.7	41.3	4.3	38.9
HU	0.0	34.7	0.0	36.3	0.0	36.3	1.7	28.7
PL	0.0	21.4	0.0	17.4	0.0	22.0	3.9	15.0
PT	1.5	42.6	2.7	42.2	1.5	44.4	1.6	44.4
RO	0.0	41.5	0.0	44.1	0.0	53.6	1.0	28.3
UK	20.8	28.8	0.0	47.2	0.0	42.5	0.0	48.8
TR	1.8	46.9	1.6	43.2	1.3	43.9	:	:

Note: *EU excluding RO. Note: Only the countries with earmarked taxes as social protection receipts during 2005-2016 period are included in the table. No data for TR in 2016. There is a break in the series in 2007 for DK for HU in 2015, and for TR in 2008 and 2012.

Source: Eurostat, ESSPROS database

Table A.3a Breakdown of gross expenditure on social protection by function, 2005-2016 (% total expenditure)

	2005			2008			2010			2016		
	Sickness/ Health	Old age	Other	Sickness/ Health	Old age	Other	Sickness/ Health	Old age	Other	Sickness/ Health	Old age	Other
EU28	28.7	38.6	32.7	29.3	39.4	31.3	29.1	39.1	31.8	29.5	40.1	30.4
BE	28.2	32.3	39.5	28.5	33.0	38.5	28.6	32.4	39.0	26.6	38.4	35.0
BG	29.0	46.5	24.4	29.6	45.0	25.5	24.2	46.6	29.2	27.5	44.5	28.0
CZ	34.3	37.3	28.3	31.9	40.3	27.8	31.1	41.8	27.1	32.4	43.7	23.9
DK	20.7	37.5	41.8	22.2	37.0	40.8	21.3	35.5	43.2	20.6	37.2	42.1
DE	28.4	34.6	37.0	30.9	34.7	34.3	32.7	33.0	34.3	34.9	32.2	32.8
EE	31.9	43.1	24.9	32.4	42.3	25.3	26.8	43.6	29.6	29.8	41.5	28.7
IE	41.0	24.8	34.2	39.8	24.1	36.0	36.3	26.6	37.1	38.1	31.4	30.6
EL	28.6	48.2	23.3	28.1	46.7	25.2	26.6	47.0	26.5	20.5	54.9	24.6
ES	31.4	32.3	36.3	31.5	32.9	35.6	28.9	33.7	37.4	27.6	40.6	31.8
FR	29.8	37.0	33.2	29.4	39.2	31.4	28.9	39.3	31.9	28.6	40.2	31.3
HR	:	:	:	33.9	31.1	34.9	33.9	30.8	35.3	33.4	34.2	32.4
IT	26.7	51.3	22.0	26.2	49.3	24.5	25.3	49.7	25.0	23.1	48.7	28.3
CY	25.2	40.0	34.8	24.0	39.3	36.7	19.5	42.2	38.3	18.5	48.7	32.7
LV	28.5	45.6	25.8	30.6	43.0	26.4	21.5	51.3	27.2	25.0	47.8	27.2
LT	30.2	42.2	27.7	29.8	41.0	29.2	26.1	40.4	33.5	31.4	43.0	25.6
LU	25.7	26.3	48.0	25.2	26.8	48.0	25.5	27.4	47.1	24.6	31.7	43.7
HU	30.1	36.5	33.4	25.3	39.4	35.3	25.7	40.3	34.0	27.6	44.5	27.9
MT	31.4	40.2	28.4	31.6	41.3	27.0	31.1	44.4	24.6	33.0	44.2	22.8
NL	31.8	37.5	30.8	35.4	36.7	27.9	36.1	36.3	27.6	32.9	38.6	28.5
AT	25.5	40.0	34.4	26.3	41.7	32.0	25.3	42.4	32.3	25.6	44.0	30.5
PL	19.5	47.6	32.9	23.4	47.3	29.2	23.0	47.6	29.4	23.2	46.4	30.5
PT	30.2	41.2	28.6	28.0	44.2	27.8	27.6	44.4	28.0	25.2	50.2	24.6
RO	28.4	39.9	31.7	25.0	46.2	28.8	25.2	46.3	28.5	27.1	50.3	22.6

	2005			2008			2010			2016		
	Sickness/ Health	Old age	Other	Sickness/ Health	Old age	Other	Sickness/ Health	Old age	Other	Sickness/ Health	Old age	Other
SI	32.3	42.4	25.3	33.7	38.5	27.8	32.3	39.5	28.2	33.2	41.9	24.9
SK	29.9	39.1	31.0	32.6	37.1	30.4	30.6	37.5	31.9	32.5	40.1	27.4
FI	25.9	33.6	40.5	26.7	34.6	38.7	25.1	35.9	38.9	22.6	40.8	36.6
SE	26.1	37.1	36.7	26.0	40.1	33.9	24.8	41.1	34.1	25.9	42.2	32.0
UK	29.5	39.8	30.7	29.2	41.8	29.0	29.2	41.3	29.4	32.6	41.9	25.5
RS	:	:	:	28.3	42.3	29.5	26.0	43.0	30.9	24.9	46.2	28.9
TR	35.2	46.5	18.3	35.5	47.4	17.1	33.8	49.0	17.2	29.3	48.6	22.2

*Note: No data for HR and RS for 2005. 2016 For TR, figures for 2016 relate to 2015. There is a break in the series in 2007 for DK for HU in 2015, and for TR in 2008 and 2012.
Source: Eurostat, ESSPROS database*

Table A.3b Breakdown of gross expenditure by function in "other" category, 2005-2016 (% total expenditure)

	2005						2010						2016					
	Disability	Survivors	Family	Unempl.	Housing	Social exclusion n.e.c.	Disability	Survivors	Family	Unempl.	Housing	Social exclusion n.e.c.	Disability	Survivors	Family	Unempl.	Housing	Social exclusion n.e.c.
EU28	8.0	6.7	8.4	5.8	2.0	1.8	7.4	5.8	8.6	6.0	2.1	1.9	7.4	5.5	8.7	4.6	2.0	2.2
BE	7.0	8.3	7.9	13.0	0.3	3.1	7.0	7.4	7.9	13.1	0.8	2.9	8.6	6.6	7.5	9.0	0.8	2.5
BG	8.4	4.6	6.8	1.9	0.0	2.7	7.7	5.0	11.7	3.4	0.0	1.5	7.4	5.4	10.4	3.2	0.0	1.6
CZ	7.6	4.2	10.0	3.5	0.4	2.7	7.5	3.6	10.3	4.0	0.6	1.1	6.4	3.3	8.8	2.6	1.4	1.4
DK	14.4	0.0	12.9	8.6	2.4	3.4	13.5	4.7	12.9	6.2	2.1	3.7	13.1	5.6	11.4	4.7	2.3	5.1
DE	7.9	8.1	10.9	7.3	2.3	0.5	7.6	7.2	11.0	5.7	2.3	0.5	8.0	6.4	11.4	3.5	1.9	1.5
EE	9.4	0.9	12.2	1.3	0.2	1.0	10.9	0.6	12.7	4.2	0.3	0.8	11.4	0.3	13.0	2.9	0.4	0.6
IE	4.9	5.2	12.1	7.9	2.1	2.1	4.9	2.1	10.3	15.3	3.1	1.3	5.4	2.3	8.6	10.1	3.4	0.7
EL	6.0	9.4	3.9	3.5	0.2	0.2	6.4	9.4	4.0	6.2	0.2	0.2	5.9	10.2	4.0	3.7	0.1	0.8
ES	7.6	10.0	5.9	10.8	0.9	1.1	7.2	8.9	6.0	13.4	0.9	0.9	7.1	9.7	5.4	8.1	0.5	1.0
FR	6.4	6.1	8.6	6.8	2.8	2.5	6.2	5.7	8.1	6.2	2.7	2.9	6.4	5.4	7.6	6.2	2.6	3.1
HR	:	:	:	:	:	:	13.8	10.2	7.8	2.4	0.1	1.1	10.9	9.1	8.6	2.4	0.1	1.4
IT	5.6	9.9	3.9	1.9	0.0	0.6	5.7	9.1	4.1	5.3	0.1	0.7	5.8	9.1	6.2	6.1	0.1	0.9
CY	3.8	6.4	11.8	6.1	2.3	4.4	3.6	5.9	10.6	5.2	5.5	7.5	4.2	7.5	7.1	5.5	1.9	6.6
LV	7.1	2.2	10.6	4.2	0.6	1.2	7.6	1.7	8.4	7.4	0.8	1.3	9.1	1.2	11.1	4.7	0.5	0.7
LT	10.3	3.8	9.0	2.9	0.0	1.6	10.0	3.1	12.0	4.3	0.1	3.9	9.3	2.9	7.8	3.3	0.4	1.9
LU	13.1	10.3	16.9	5.0	0.7	2.0	11.4	8.7	17.8	5.6	1.4	2.2	10.8	7.8	15.4	5.8	1.6	2.3
HU	9.9	6.0	11.6	2.9	2.4	0.7	8.3	5.8	13.0	4.0	2.3	0.6	6.3	5.5	11.9	1.7	1.9	0.5
MT	6.4	10.0	6.3	3.3	0.8	1.6	4.2	9.0	6.0	2.7	0.8	1.8	3.6	8.3	5.9	2.7	0.9	1.3
NL	9.9	5.5	5.1	6.6	1.3	2.3	8.5	4.3	4.2	4.7	1.3	4.6	9.4	4.0	4.0	4.7	1.7	4.7
AT	8.3	7.4	11.2	5.8	0.4	1.3	7.4	6.6	10.8	5.6	0.5	1.3	6.4	5.8	9.5	5.8	0.4	2.6
PL	11.5	10.9	4.8	3.2	0.6	1.8	8.7	10.3	6.9	2.1	0.3	1.1	6.7	9.3	12.8	0.9	0.2	0.6
PT	9.8	6.7	5.2	5.8	0.0	1.0	8.2	7.3	5.5	5.7	0.0	1.4	7.2	7.6	4.9	3.8	0.0	1.0

	2005						2010						2016					
	Disability	Survivors	Family	Unempl.	Housing	Social exclusion n.e.c.	Disability	Survivors	Family	Unempl.	Housing	Social exclusion n.e.c.	Disability	Survivors	Family	Unempl.	Housing	Social exclusion n.e.c.
RO	8.2	4.1	14.0	3.1	0.0	2.3	9.1	4.5	9.7	3.2	0.1	1.8	6.9	4.3	9.6	0.6	0.1	1.1
SI	8.5	2.0	8.6	3.3	0.1	2.8	7.2	7.0	8.9	2.7	0.0	2.4	5.3	6.2	7.5	2.6	0.1	3.1
SK	8.2	5.5	10.5	3.5	0.0	3.3	8.7	5.3	9.7	5.5	0.2	2.6	8.8	4.8	9.0	3.0	0.2	1.5
FI	12.9	3.6	11.6	9.3	1.1	2.0	12.0	3.2	11.1	8.2	1.7	2.7	9.9	2.6	9.9	8.2	2.4	3.5
SE	15.1	2.1	9.6	6.1	1.8	2.0	13.5	1.7	10.4	4.6	1.5	2.4	10.9	1.1	10.3	3.5	1.4	4.7
UK	8.5	3.2	9.1	2.5	4.1	3.4	6.9	0.4	11.1	2.5	4.9	3.6	6.6	0.3	9.9	1.4	4.9	2.3
RS	:	:	:	:	:	:	9.3	9.5	5.3	4.3	0.0	2.6	6.2	9.6	6.2	3.3	0.8	2.8
TR	2.1	11.8	2.6	0.7	0.0	1.1	2.9	9.7	2.5	1.1	0.0	0.9	3.7	11.9	3.2	1.9	0.0	1.4

Note: No data for HR and RS for 2005. 2016 For TR, figures for 2016 relate to 2015. Family benefits include benefits for children. There is a break in the series in 2007 for DK for HU in 2015, and for TR in 2008 and 2012.

Source: Eurostat, ESSPROS database

Table A.4 Share of expenditure on means-tested benefits, 2005-2016

	% of total expenditure												Percentage point change			
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2005-2008	2008-2010	2010-2016	2005-2016
EU28	10.3	10.4	12.0	11.8	12.0	12.1	12.1	12.0	11.8	12.0	12.1	12.1	1.5	0.3	0.0	1.8
BE	4.7	4.8	4.9	5.1	5.1	5.1	5.0	5.3	5.2	4.9	4.8	5.2	0.4	0.0	0.1	0.4
BG	6.6	6.1	4.9	4.7	4.4	4.5	4.2	4.2	4.1	4.2	3.8	3.4	-1.9	-0.2	-1.1	-3.2
CZ	5.3	5.0	3.2	2.0	1.7	1.9	1.8	2.1	2.7	2.9	2.7	2.5	-3.3	-0.1	0.6	-2.8
DK	3.1	3.0	33.6	33.8	32.7	34.0	35.3	35.7	35.9	35.7	36.4	37.2	:	0.2	3.2	3.4
DE	12.2	12.6	12.3	12.0	11.8	12.0	11.9	11.8	12.0	12.1	12.4	13.0	-0.2	0.0	1.0	0.7
EE	1.0	0.8	0.6	0.4	0.5	0.9	1.0	0.8	0.7	0.7	0.5	0.9	-0.6	0.4	0.1	-0.1
IE	23.4	23.9	24.5	25.5	26.9	29.1	31.0	31.3	31.7	31.1	30.0	28.5	2.0	3.7	-0.6	5.1
EL	3.3	3.4	4.0	3.6	3.4	3.5	3.2	3.2	4.7	6.0	5.4	5.1	0.2	-0.1	1.6	1.8
ES	13.4	13.7	13.4	13.4	14.0	14.7	16.2	14.9	14.4	14.2	13.4	13.1	0.0	1.3	-1.6	-0.3
FR	10.9	11.2	11.1	11.0	11.2	10.9	10.9	10.9	10.9	11.0	10.9	11.0	0.0	-0.1	0.1	0.1
HR	:	:	:	5.2	5.1	5.0	5.3	5.0	5.1	5.2	5.0	4.9	:	-0.3	-0.1	-0.3
IT	5.7	5.8	6.0	6.0	6.5	5.9	5.7	5.6	5.7	7.1	7.7	8.0	0.3	-0.1	2.1	2.3
CY	8.5	8.8	10.3	11.9	13.2	14.7	13.8	14.8	13.1	13.5	14.6	15.0	3.4	2.7	0.3	6.5
LV	1.4	1.5	1.7	1.9	1.9	4.1	4.4	2.8	1.8	1.5	1.1	1.0	0.5	2.1	-3.0	-0.4
LT	2.1	1.8	1.5	1.7	2.4	5.5	6.1	6.0	5.3	4.1	3.2	2.7	-0.4	3.8	-2.7	0.6
LU	2.8	3.0	3.0	3.0	3.7	3.7	3.8	3.6	3.6	3.7	3.7	3.9	0.1	0.7	0.3	1.1
HU	5.3	4.3	6.4	5.4	5.4	5.1	4.7	4.1	4.2	3.6	4.0	3.9	0.1	-0.4	-1.2	-1.4
MT	17.2	17.2	16.9	13.3	13.1	12.8	13.2	12.5	12.7	13.0	13.0	11.6	-3.9	-0.5	-1.2	-5.6
NL	9.4	10.5	12.2	12.6	13.0	13.0	13.2	13.1	13.4	13.0	14.5	14.7	3.2	0.5	1.7	5.4
AT	7.6	7.8	7.8	7.9	8.0	8.2	8.3	8.3	8.4	8.7	9.1	9.7	0.3	0.3	1.5	2.1
PL	6.3	5.1	5.0	4.1	3.5	3.6	3.4	3.9	4.0	3.8	4.2	4.7	-2.2	-0.5	1.1	-1.6

	% of total expenditure												Percentage point change			
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2005-2008	2008-2010	2010-2016	2005-2016
PT	10.9	9.2	9.3	9.9	10.1	10.0	8.8	8.9	8.4	8.2	8.0	8.1	-1.1	0.1	-1.9	-2.9
RO	7.0	6.4	6.4	5.0	5.7	7.2	4.8	4.1	4.3	4.1	4.3	3.8	-1.9	2.2	-3.4	-3.2
SI	9.7	9.1	8.6	8.5	8.5	8.3	8.3	7.7	7.6	7.8	7.8	7.9	-1.2	-0.1	-0.5	-1.9
SK	5.5	6.5	6.4	5.1	5.1	5.4	5.3	5.2	5.1	4.8	4.4	4.0	-0.4	0.3	-1.4	-1.6
FI	5.1	4.8	4.5	4.2	4.3	4.4	4.6	5.0	5.3	5.6	6.1	6.5	-0.9	0.2	2.1	1.4
SE	2.9	2.8	2.8	2.7	2.7	2.8	2.7	2.7	2.6	2.6	2.6	2.4	-0.2	0.1	-0.4	-0.5
UK	14.6	14.5	20.2	20.8	21.4	21.3	20.8	20.2	19.4	18.6	17.7	17.6	6.2	0.5	-3.7	3.0
RS	:	:	:	3.3	3.3	5.0	4.2	4.8	5.2	4.6	4.6	5.0	:	1.7	0.0	1.7
TR	8.9	9.1	10.1	9.5	10.1	9.3	10.4	9.0	9.3	9.6	9.1	:	0.7	-0.3	-0.2	0.2

Note: No data for HR and RS for 2005-2007 and TR for 2016. For TR, the figures for the percentage point change for 2010-16 and 2005-2016 relate to 2010-2015 and 2005-2015, respectively. There is a break in the series in 2007 for DK for HU in 2015, and for TR in 2008 and 2012.

Source: Eurostat, ESSPROS database

Table A.5 Gross and net social protection expenditure

	% of GDP						Percentage point difference		
	Gross expenditure			Net expenditure			Net minus gross		
EU28	25.2	28.6	28.3	23.5	26.5	26.1	-1.7	-2.1	-2.2
FR	30.1	32.9	34.0		31.3	32.1		-1.6	-1.9
FI	24.5	29.3	32.1	21.9	26.5	28.7	-2.6	-2.9	-3.4
BE	26.3	29.4	30.3	24.2	27.1	28.2	-2.1	-2.3	-2.2
DK	29.1	32.4	32.3	24.8	28.0	27.4	-4.3	-4.5	-4.9
UK	24.7	29.0	27.7	23.8	28.0	26.8	-0.9	-1.0	-0.9
AT	27.0	29.6	29.8	24.4	26.8	26.7	-2.7	-2.8	-3.1
DE	26.8	29.8	29.1	24.9	27.6	26.6	-2.0	-2.2	-2.5
IT	26.7	28.9	29.9	24.0	25.8	26.2	-2.7	-3.0	-3.7
SE	27.4	28.6	29.2	23.7	25.0	25.9	-3.7	-3.6	-3.3
EL	21.3	25.9	26.4	19.9	24.6	25.1	-1.3	-1.3	-1.3
NL	26.1	29.7	30.2	21.4	24.4	24.4	-4.7	-5.3	-5.8
PT	23.1	25.8	25.7	22.4	25.0	24.0	-0.7	-0.8	-1.7
SI	20.9	24.4	23.8	:	24.1	23.5	:	-0.3	-0.3
ES	20.3	24.6	24.7	19.4	23.5	23.3	-0.9	-1.2	-1.4
HR	18.8	21.0	21.1	18.5	20.6	20.8	-0.3	-0.3	-0.3
CY	16.4	19.9	21.8	16.3	19.5	20.6	-0.2	-0.5	-1.2
LU	19.7	22.7	22.1	18.3	21.0	20.0	-1.4	-1.7	-2.1
HU	22.1	22.5	19.4	21.8	22.3	19.1	-0.3	-0.2	-0.2
CZ	17.6	20.0	19.0	17.6	20.0	18.9	-0.1	-0.1	-0.1
SK	15.7	18.2	18.2	15.6	18.2	18.2	0.0	-0.1	0.0
BG	13.4	17.0	17.9	13.4	17.0	17.9	0.0	0.0	0.0
PL	18.4	19.7	19.1	:	17.3	16.7	:	-2.5	-2.5
MT	17.8	19.3	17.5	17.5	18.9	16.4	-0.3	-0.3	-1.1
EE	12.0	17.6	16.4	11.8	17.2	16.0	-0.2	-0.4	-0.3
IE	18.1	25.2	16.3	17.7	24.6	15.9	-0.4	-0.6	-0.4
LT	14.2	19.1	15.6	14.0	18.8	15.4	-0.3	-0.4	-0.3
LV	10.6	18.3	14.9	10.4	17.7	14.4	-0.2	-0.5	-0.5
RO	13.2	17.5	14.6	13.1	17.3	14.4	-0.1	-0.2	-0.2
RS	22.9	23.9	22.1	22.6	23.5	21.6	-0.4	-0.4	-0.5
TR	:	:	12.0	:	:	12.0	:	12.2	0.0

Note: Countries ordered in terms of net expenditure as % of GDP in 2015. No data for net expenditure before 2010 for FR, PL and SI. For HR, IT and RS, figures for 2008 relate to 2007. For PL, figures for 2015 relate to 2014. The EU totals have been estimated on a consistent basis by taking the nearest year for which data are available where data are missing for any country.

Source: Eurostat, ESSPROS database

Table A.6a Effective tax and social contribution rates on social protection expenditure

	% of Gross social protection expenditure								
	2007			2010			2015		
EU28	5.2	1.7	7.0	5.2	2.1	7.2	5.7	2.1	7.8
BE	6.7	1.2	7.9	6.7	1.2	8.0	5.9	1.3	7.2
BG	:	:	0.0	:	:	0.1	:	:	0.0
CZ	0.3	0.0	0.3	0.2	0.0	0.2	0.4	0.0	0.4
DK	14.8	0.0	14.8	13.8	0.0	13.8	15.2	0.0	15.2
DE	2.5	4.8	7.2	1.4	6.1	7.5	2.2	6.3	8.4
EE	1.3	0.0	1.3	2.2	0.0	2.2	2.1	0.0	2.1
IE	2.1	0.0	2.1	2.5	0.0	2.5	2.3	0.0	2.3
EL	6.1	0.1	6.2	4.9	0.0	4.9	5.0	0.0	5.0
ES	4.1	0.3	4.3	4.3	0.3	4.7	5.1	0.4	5.5
FR	:	:	:	1.6	3.3	4.9	2.2	3.2	5.4
HR	1.5	0.1	1.7	1.5	0.2	1.7	1.0	0.2	1.2
IT	9.8	0.1	9.9	10.4	0.1	10.5	12.1	0.1	12.3
CY	1.1	0.0	1.1	2.4	0.0	2.4	5.7	0.0	5.7
LV	1.9	0.0	1.9	3.0	0.0	3.0	3.3	0.0	3.3
LT	1.8	0.0	1.8	1.9	0.0	1.9	1.7	0.0	1.7
LU	5.0	2.0	7.0	5.3	2.0	7.3	7.3	2.0	9.3
HU	1.4	0.0	1.4	1.0	0.0	1.0	0.9	0.4	1.2
MT	1.5	0.0	1.5	1.8	0.0	1.8	2.2	0.0	2.2
NL	18.1	0.0	18.1	17.9	0.0	17.9	19.1	0.0	19.1
AT	7.6	2.3	9.8	7.3	2.3	9.6	8.1	2.3	10.4
PL	:	:	:	12.5	0.0	12.5	12.9	0.0	12.9
PT	1.9	1.1	3.0	2.0	1.0	3.0	4.7	1.8	6.5
RO	0.4	0.0	0.4	1.0	0.0	1.0	1.5	0.0	1.6
SI	:	:	1.4	:	:	1.4	:	:	1.3
SK	:	:	0.4	:	:	0.4	:	:	0.2
FI	9.5	1.1	10.6	8.6	1.1	9.7	9.5	1.0	10.5
SE	13.6	0.0	13.6	12.4	0.0	12.4	11.3	0.0	11.3
UK	3.4	0.0	3.4	3.4	0.0	3.4	3.4	0.0	3.4
RS	1.6	0.0	1.6	1.8	0.0	1.8	2.1	0.0	2.1
TR	:	:	:	:	:	:	:	:	0.2

Note: The combined tax and social contribution rate is calculated as the difference between Gross and net social protection expenditure as a % of gross expenditure. The social contribution rate is calculated as the amount of contributions paid by benefit recipients, or protected persons, as a % of gross social protection expenditure. The tax rate is calculated as the difference between the two rates.

No data for FR, PL and SI before 2010 and TR before 2013. The data for HR and RS for 2007 relate to 2008. The data for BG, SI, SK and TR for the difference between gross and net social protection expenditure and the social contributions paid by protected persons are inconsistent, in the sense that the latter is greater than the former.

Source: Eurostat, ESSPROS, Net social protection benefits

Table A.6b Division of financing for net social protection expenditure by main source, 2007-2015

	% of total receipts									Difference, Net minus Gross					
	2007			2010			2015			2007		2010		2015	
	Social contrib.	General govt.	Other	Social contrib.	General govt.	Other	Social contrib.	General govt.	Other	Social contrib.	General govt.	Social contrib.	General govt.	Social contrib.	General govt.
EU28	57.3	35.6	7.1	56.9	37.0	6.2	55.3	38.7	6.0	2.1	-2.5	2.0	-2.4	2.1	-2.6
BE	69.3	28.6	2.1	65.8	31.6	2.6	63.7	33.9	2.4	4.2	-4.3	3.9	-4.1	3.3	-3.5
BG	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
CZ	76.4	22.0	1.5	70.8	27.9	1.3	71.9	26.7	1.4	0.2	-0.2	0.2	-0.2	0.3	-0.3
DK	24.5	65.5	10.0	23.0	72.1	4.9	20.9	71.3	7.9	3.1	-4.4	2.8	-3.4	2.8	-3.9
DE	63.4	34.4	2.2	61.3	36.9	1.9	64.3	33.8	1.9	-0.2	0.0	-1.4	1.3	-0.8	0.6
EE	82.6	17.3	0.1	81.9	17.9	0.2	81.1	18.8	0.1	1.1	-1.1	1.8	-1.8	1.7	-1.7
IE	39.5	54.0	6.4	33.8	61.8	4.5	38.8	57.2	4.0	0.8	-0.9	0.8	-0.9	0.9	-1.0
EL	63.3	27.3	9.4	60.4	33.4	6.2	59.1	36.2	4.7	3.5	-4.1	2.9	-3.2	3.0	-3.3
ES	65.5	32.5	2.0	57.6	40.9	1.6	57.1	40.8	2.1	2.4	-2.5	2.3	-2.4	2.9	-3.0
FR	:	:	:	62.0	34.2	3.8	60.9	35.7		-0.2	0.0	-0.3	0.1	0.1	-0.3
HR	67.1	31.3	1.7	60.8	36.3	2.9	58.7	38.7	2.6	0.9	-1.0	0.8	-0.8	0.4	-0.5
IT	61.6	36.0	2.4	58.4	39.3	2.3	55.8	41.7	2.5	5.8	-6.0	6.0	-6.2	6.5	-6.8
CY	38.7	45.8	15.5	40.3	50.7	8.9	50.8	44.3	4.9	0.3	-0.5	0.8	-1.0	3.0	-3.3
LV	65.4	34.2	0.4	50.2	47.5	2.3	59.9	39.6	0.5	1.0	-1.0	1.5	-1.6	2.0	-2.0
LT	64.3	35.1	0.6	66.9	32.1	1.1	73.3	25.9	0.7	1.0	-1.0	1.5	-1.5	1.3	-1.3
LU	53.4	41.5	5.0	51.6	41.9	6.5	53.1	41.6	5.4	1.5	-1.8	1.6	-2.1	2.7	-3.1
HU	58.4	38.1	3.5	52.3	35.8	12.0	66.4	33.5	0.1	0.7	-0.8	0.4	-0.5	0.5	-0.5
MT	57.8	39.1	3.0	50.2	47.6	2.1	40.7	56.8	2.5	0.9	-0.9	0.9	-0.9	0.9	-0.9
NL	79.9	4.7	15.3	79.1	7.8	13.1	75.1	7.7	17.2	12.8	-15.2	13.4	-15.6	12.8	-15.8
AT	68.9	29.8	1.3	66.2	32.0	1.9	67.0	31.6	1.4	4.6	-4.7	4.1	-4.3	4.7	-4.8
PL	:	:	:	67.2	10.3	22.5	74.7	8.5	16.8			8.8	-11.7	9.6	-11.8
PT	46.7	43.3	10.0	44.8	45.2	10.0	46.2	45.3	8.5	0.3	-0.6	0.3	-0.6	1.1	-1.7

	% of total receipts									Difference, Net minus Gross					
	2007			2010			2015			2007		2010		2015	
RO	54.6	43.7	1.7	46.0	53.1	0.9	45.8	52.8	1.5	0.2	-0.2	0.5	-0.5	0.7	-0.7
SI	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
SK	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
FI	53.2	38.1	8.8	51.4	42.0	6.6	51.4	43.0	5.5	4.0	-4.8	3.6	-4.2	4.3	-4.8
SE	57.5	39.2	3.2	54.6	43.0	2.4	52.2	45.5	2.4	6.6	-6.9	6.1	-6.4	5.4	-5.7
UK	38.1	44.4	17.5	41.5	40.7	17.9	36.1	49.6	14.3	1.0	-1.5	1.3	-1.8	1.0	-1.4
RS	:	:	:	58.8	40.5	0.7	61.5	38.0	0.6	:	:	:	:	1.3	-1.3
TR	:	:	:	:	:	:	50.5	43.8	5.7	:	:	:	:	-1.8	1.8

Note: See Notes to Table 6a

Source: Eurostat, ESSPROS, Net social protection benefits

Table A.7 Tax expenditures and mandatory private social expenditure, 2013

	% of GDP			
	Tax expenditures	Mandatory private social expenditure	Taxes+ contributions on mandatory expenditure	Net mandatory private expenditure
BE	0.5	0.0	0.0	0.0
CZ	0.9	0.4	0.0	0.4
DK	0.0	2.5	0.4	2.1
DE	1.0	1.4	0.5	0.9
EE	0.2	0.0	0.0	0.0
IE	0.4	0.0	0.0	0.0
EL	0.0	0.0	0.0	0.0
ES	0.2	0.0	0.0	0.0
FR	1.0	0.2	0.0	0.2
IT	0.8	0.6	0.1	0.6
LU	0.0	0.9	0.2	0.7
HU	0.6	0.0	0.0	0.0
NL	0.7	0.7	0.2	0.5
AT	0.1	0.8	0.2	0.7
PL	0.4	0.0	0.0	0.0
PT	0.8	0.3	0.0	0.3
SI	0.0	0.0	0.0	0.0
FI	0.0	0.0	0.0	0.0
SE	0.0	0.4	0.1	0.3
UK	0.1	0.9	0.1	0.9

Note: Tax expenditures are tax allowances or tax concessions which reduce the amount of tax payable and accordingly are equivalent to social benefits in transferring income to those concerned. Mandatory private social expenditure is also equivalent to social benefits, though the benefits concerned are paid for directly by the private sector rather than by social insurance funds or the Government.

No data available for non-OECD countries.

Source: OECD, Social protection data

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

	2005			2008			2010			2015		
	Social contrib.	Govt. revenue	Other receipts	Social contrib.	Govt. revenue	Other receipts	Social contrib.	Govt. revenue	Other receipts	Social contrib.	Govt. revenue	Other receipts
EU	64.9	18.8	16.4	65.7	19.0	15.3	64.6	20.1	15.3	64.8	19.8	15.4
BE	62.0	20.3	17.7	46.9	6.9	46.2	46.9	6.7	46.4	43.3	7.2	49.5
BG	:	:	:	57.1	41.8	1.1	34.4	64.8	0.8	42.8	56.3	0.9
CZ	94.5	4.5	1.0	92.1	6.8	1.1	81.6	17.2	1.2	82.5	16.1	1.4
DE	63.6	28.9	7.5	66.4	28.4	5.2	66.0	28.1	5.9	66.5	28.0	5.5
EE	:	:	:	74.8	22.8	2.4	73.8	22.9	3.4	72.9	23.2	3.9
EL	65.8	29.1	5.1	62.3	34.1	3.7	63.9	31.9	4.2	58.8	34.7	6.5
ES	:	:	:	:	:	:	75.7	16.3	7.9	72.7	20.4	6.9
HR	:	:	:	66.8	32.6	0.7	60.7	38.7	0.6	59.1	36.8	4.1
IT	71.2	17.7	11.0	71.1	17.2	11.6	66.7	21.2	12.1	64.8	22.4	12.8
CY	42.0	37.2	20.8	44.9	38.8	16.3	43.6	43.1	13.3	50.0	43.8	6.1
LV	92.3	3.8	3.9	90.1	4.2	5.7	62.4	33.2	4.4	77.5	17.0	5.4
LT	86.4	13.1	0.5	87.0	12.5	0.4	80.4	19.2	0.5	83.5	16.1	0.4
LU	:	:	:	:	:	:	63.4	20.6	16.0	68.1	21.7	10.2
HU	67.8	24.7	7.5	79.1	19.1	1.9	62.2	16.2	21.6	88.0	11.9	0.1
MT	74.1	25.3	0.6	68.7	30.8	0.5	59.8	39.8	0.4	48.7	51.1	0.3
NL	69.1	9.9	21.0	68.9	9.8	21.3	64.1	15.5	20.5	59.7	14.3	26.0
AT	60.4	34.9	4.7	60.7	34.6	4.7	57.8	36.5	5.8	57.7	36.5	5.8
RO	94.1	3.8	2.1	89.9	9.2	0.9	72.6	25.5	1.9	68.3	30.8	1.0
SK	53.2	11.8	35.0	50.4	11.1	38.5	42.9	10.6	46.5	50.6	15.4	34.0
FI	70.6	17.4	11.9	68.5	16.5	15.0	69.2	19.4	11.4	70.4	19.6	10.0
SE	63.6	28.8	7.6	65.1	25.7	9.2	66.7	25.3	8.0	70.0	22.2	7.8
UK	:	:	:	58.5	13.4	28.1	60.7	11.4	27.9	64.2	10.6	25.3
RS	:	:	:	58.2	36.1	5.7	55.6	41.8	2.6	61.3	37.1	1.6

Note: Transfers from other schemes are a significant part of Other receipts in BE, accounting for 48% of total financing in 2015, SK, accounting for 32% in 2015, and IT, accounting for 12%.

There are no data on how the schemes from which funding is transferred are financed.

EU totals cover only the MS included in the table. To ensure consistency over time, the total is estimated for all years by assuming for the countries where data are missing for particular years that the figures are the same as those for the nearest available year.

Source: ESSPROS data by scheme, own calculations

Table A.8b. Breakdown of the financing of old age benefits by social contributions by sub-category, 2005-2015 (% of total financing)

	2005				2008				2010				2015			
	Employers	Employees	Self-employed	Benefit recipients	Employers	Employees	Self-employed	Benefit recipients	Employers	Employees	Self-employed	Benefit recipients	Employers	Employees	Self-employed	Benefit recipients
EU	43.4	18.4	2.9	0.2	42.5	19.5	3.5	0.2	42.5	18.6	3.3	0.2	41.8	19.5	3.3	0.2
BE	44.7	17.0	0.0	0.3	38.3	7.6	0.0	1.0	38.5	7.6	0.0	0.8	37.0	5.5	0.0	0.8
BG					35.2	18.5	2.7	0.7	22.6	9.4	2.0	0.4	26.0	13.0	2.5	1.4
CZ	63.9	25.3	5.2	0.0	62.0	25.1	5.0	0.0	55.0	21.6	4.8	0.0	55.1	22.8	4.6	0.0
DE	39.1	22.1	2.0	0.4	39.2	24.9	2.0	0.4	38.6	24.9	2.1	0.4	37.5	26.3	2.3	0.4
EE	:	:	:	:	74.8	0.0	0.0	0.0	73.8	0.0	0.0	0.0	72.9	0.0	0.0	0.0
EL	36.0	22.5	7.2	0.0	35.3	19.2	7.8	0.0	36.6	19.6	7.7	0.0	35.6	16.7	6.4	0.0
ES	:	:	:	:	:	:	:	:	57.4	10.8	6.9	0.6	54.2	10.5	7.4	0.6
HR	:	:	:	:	1.3	61.8	3.5	0.2	1.3	56.5	2.8	0.2	1.2	55.3	2.4	0.2
IT	50.0	13.0	8.2	0.0	46.8	14.2	10.0	0.2	44.9	13.1	8.5	0.2	42.0	13.1	9.5	0.3
CY	22.3	17.7	1.9	0.0	22.9	19.8	2.3	0.0	21.9	19.8	1.8	0.0	23.3	24.9	1.8	0.0
LV	67.3	24.8	0.1	0.0	65.7	24.3	0.1	0.0	45.4	16.8	0.1	0.0	53.7	23.8	0.1	0.0
LT	76.8	8.2	1.4	0.0	78.3	7.4	1.3	0.0	70.0	8.9	1.5	0.0	71.7	9.6	2.2	0.0
LU	:	:	:	:	:	:	:	:	29.7	30.0	2.9	0.8	32.6	31.7	3.0	0.7
HU	45.7	21.8	0.3	0.0	49.3	29.3	0.5	0.0	39.8	22.0	0.4	0.0	59.8	26.9	0.9	0.4
MT	54.1	16.3	3.7	0.0	49.6	15.4	3.7	0.0	43.2	13.4	3.2	0.0	35.5	10.7	2.5	0.0
NL	26.0	42.7	0.3	0.0	26.3	42.2	0.4	0.0	23.6	40.1	0.4	0.0	20.5	38.9	0.4	0.0
AT	33.4	23.7	3.3	0.0	34.1	23.4	3.2	0.0	32.4	22.3	3.1	0.0	32.2	21.9	3.6	0.0
RO	69.2	24.0	0.9	0.0	63.2	25.8	0.9	0.0	51.3	20.5	0.9	0.0	45.2	22.6	0.3	0.0
SK	35.7	14.4	2.8	0.4	32.3	15.4	2.5	0.2	27.3	13.0	2.4	0.1	35.3	12.6	2.7	0.1
FI	56.6	11.1	2.9	0.0	55.5	10.2	2.8	0.0	54.6	11.5	3.1	0.0	52.3	14.4	3.7	0.0
SE	45.0	18.0	0.6	0.0	46.5	17.8	0.8	0.0	47.6	18.3	0.8	0.0	51.7	17.5	0.7	0.0
UK	:	:	:	:	41.6	16.3	0.6	0.0	45.4	14.8	0.5	0.0	46.5	17.0	0.6	0.0
RS	:	:	:	:	27.3	26.3	4.6	0.0	26.5	24.8	4.3	0.0	27.2	29.2	4.9	0.0

Note: See Notes to Table 8a

Source: ESSPROS data by scheme, own calculations

Table A.8c Share of total financing from earmarked taxes, 2005-2015 (%)

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
EL	5.0	4.8	4.4	4.3	4.6	4.6	4.4	3.3	3.7	5.2	2.5

Source: ESSPROS data by scheme, own calculations

Table A.9a Division of financing of healthcare expenditure and sickness benefits by main source, 2005-2015 (% of total financing)

	2005			2008			2010			2015		
	Social contrib.	Govt. revenue	Other receipts	Social contrib.	Govt. revenue	Other receipts	Social contrib.	Govt. revenue	Other receipts	Social contrib.	Govt. revenue	Other receipts
EU	38.5	51.4	10.1	41.9	48.1	10.1	42.2	47.7	10.1	40.6	49.9	9.5
BE	10.7	14.8	74.5	10.8	12.7	76.5	10.7	12.8	76.5	10.8	13.9	75.3
BG	:	:	:	43.9	39.3	16.9	71.4	24.2	4.4	60.7	37.5	1.8
CZ	80.1	17.1	2.8	77.8	19.1	3.1	76.2	21.9	1.9	76.9	21.7	1.4
DE	81.3	5.2	13.5	83.7	5.1	11.3	81.3	9.2	9.5	84.5	6.7	8.8
EE	:	:	:	93.4	6.4	0.2	92.5	7.2	0.3	90.4	9.2	0.4
EL	42.0	39.8	18.2	42.1	40.0	17.9	42.2	45.0	12.8	41.4	46.7	11.9
ES	:	:	:	:	:	:	17.5	79.5	3.0	15.0	82.8	2.2
HR	:	:	:	87.7	7.3	5.0	78.8	10.6	10.7	81.9	8.3	9.7
IT	8.6	84.8	6.6	6.4	87.4	6.2	5.6	88.1	6.3	5.0	89.6	5.4
CY	36.4	57.7	5.9	36.5	59.6	3.8	34.9	60.7	4.4	43.3	51.1	5.6
LV	17.5	82.5	0.0	22.7	77.3	0.0	15.6	84.4	0.0	22.6	77.4	0.0
LT	29.5	70.2	0.4	29.4	69.5	1.1	55.3	44.0	0.8	68.9	30.5	0.6
LU	:	:	:	:	:	:	61.8	31.7	6.5	61.3	32.2	6.5
HU	77.7	19.2	3.1	62.1	33.7	4.3	43.9	50.3	15.5	50.6	49.3	0.1
MT	65.4	33.9	0.7	60.1	39.3	0.6	51.2	48.2	0.5	43.5	56.1	0.4
NL	82.5	14.8	2.7	88.3	9.4	2.3	86.2	11.0	2.8	84.0	12.5	3.5
AT	48.2	19.0	32.7	48.0	19.4	32.6	46.7	20.1	33.3	46.9	20.0	33.2
RO	7.9	85.0	7.2	4.0	92.1	3.9	0.5	96.7	2.7	0.6	96.5	2.9
SK	72.5	27.0	0.5	72.5	27.2	0.3	66.2	33.5	0.2	70.7	29.1	0.2
FI	29.1	70.9	0.0	29.9	70.1	0.0	31.0	69.0	0.0	30.5	69.5	0.0
SE	24.2	68.1	7.7	18.0	73.0	9.0	14.0	74.8	11.3	17.0	71.7	11.4
UK	:	:	:	7.1	90.2	2.7	9.3	86.4	4.3	5.6	89.8	4.5
RS	:	:	:	71.8	3.0	25.2	70.8	0.8	28.4	65.5	9.8	24.7

Note: Transfers from other schemes are a significant part of Other receipts in BE, accounting for 74% of total financing in 2015, AT, accounting for 31% in 2015, SE, a accounting for 11% in 2015, and RS, accounting for 23% in 2015. There are no data on how the schemes from which funding is transferred are financed.

EU totals cover only the MS included in the table. To ensure consistency over time, the total is estimated for all years by assuming for the countries where data are missing for particular years that the figures are the same as those for the nearest available year.

Source: ESSPROS data by scheme, own calculations

Table A.9b. Breakdown of the financing of healthcare and sickness benefits by social contributions by sub-category, 2005-2015 (% of total financing)

	2005				2008				2010				2015			
	Employers	Employees	Self-employed	Benefit recipients	Employers	Employees	Self-employed	Benefit recipients	Employers	Employees	Self-employed	Benefit recipients	Employers	Employees	Self-employed	Benefit recipients
EU	22.2	11.4	0.7	4.2	23.3	13.5	0.7	4.3	22.3	13.4	1.1	5.3	21.8	12.8	0.9	5.1
BE	3.7	3.1	1.1	2.7	4.6	3.4	0.0	2.7	4.6	3.5	0.0	2.6	5.0	2.9	0.1	2.9
BG	:	:	:	:	25.5	14.3	4.0	0.1	40.5	24.8	5.4	0.7	34.3	20.9	4.0	1.5
CZ	50.8	22.5	6.8	0.0	48.9	22.1	6.9	0.0	49.1	20.0	7.1	0.0	49.5	20.0	7.3	0.0
DE	41.0	25.6	0.7	14.0	43.2	26.3	0.7	13.5	38.4	25.1	2.2	15.6	41.3	26.0	2.0	15.1
EE	:	:	:	:	93.4	0.0	0.0	0.0	92.5	0.0	0.0	0.0	90.4	0.0	0.0	0.0
EL	21.1	15.1	5.3	0.5	21.1	14.2	6.4	0.4	21.0	14.9	6.1	0.1	17.6	23.7	0.1	0.0
ES	:	:	:	:	:	:	:	:	14.3	2.1	1.1	0.1	12.0	1.9	1.1	0.1
HR	:	:	:	:	84.2	0.0	3.5	0.0	75.4	0.0	3.2	0.2	78.1	0.0	3.5	0.3
IT	8.5	0.0	0.1	0.0	6.3	0.0	0.1	0.0	5.5	0.0	0.1	0.0	4.9	0.0	0.1	0.0
CY	31.7	4.5	0.3	0.0	31.4	4.8	0.3	0.0	29.1	5.5	0.3	0.0	37.2	6.0	0.1	0.0
LV	13.5	4.0	0.0	0.0	17.7	5.0	0.0	0.0	11.9	3.6	0.0	0.0	16.8	5.8	0.0	0.0
LT	27.6	1.7	0.2	0.0	28.0	1.3	0.1	0.0	19.0	33.4	2.8	0.0	29.5	36.2	3.2	0.0
LU	:	:	:	:	:	:	:	:	30.0	25.2	2.5	4.1	30.2	24.6	2.4	4.1
HU	62.3	15.3	0.0	0.0	35.8	26.0	0.0	0.3	17.8	26.1	0.0	0.0	21.9	27.3	0.9	0.4
MT	45.2	16.4	3.7	0.0	41.7	14.9	3.6	0.0	35.4	12.8	3.1	0.0	30.5	10.5	2.5	0.0
NL	39.2	43.3	0.0	0.0	37.7	50.6	0.0	0.0	37.5	48.7	0.0	0.0	38.2	45.8	0.0	0.0
AT	24.5	14.2	2.7	6.8	24.6	14.3	2.4	6.7	23.7	13.8	2.4	6.8	23.5	14.0	2.5	6.9
RO	6.8	1.1	0.0	0.0	3.4	0.6	0.0	0.0	0.5	0.0	0.0	0.0	0.6	0.0	0.0	0.0
SK	46.8	19.9	5.3	0.5	46.9	19.8	4.9	0.9	43.1	17.9	3.9	1.3	44.9	19.4	5.0	1.5
FI	20.8	5.5	0.5	2.3	19.4	7.3	0.5	2.6	19.3	8.2	0.7	2.8	20.0	7.0	0.6	2.9
SE	23.7	0.0	0.5	0.0	17.6	0.0	0.4	0.0	13.7	0.0	0.3	0.0	16.9	0.0	0.1	0.0
UK	:	:	:	:	6.8	0.3	0.0	0.0	9.0	0.3	0.0	0.0	5.5	0.1	0.0	0.0
RS	:	:	:	:	36.4	30.7	4.7	0.0	36.4	30.2	4.0	0.1	34.8	27.1	3.5	0.1

Note: See Notes to Table 9a

Source: ESSPROS data by scheme, own calculations

Table A.9c Share of total financing from earmarked taxes, 2005-2015 (%)

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
BE	12.1	12.6	12.1	11.3	11.6	10.6	10.6	10.9	11.2	10.9	10.7
EL	3.2	2.5	2.3	2.2	1.7	1.7	1.7	0.0	0.0	0.1	0.1

Source: ESSPROS data by scheme, own calculations

Table A.10a Division of financing of survivors' benefits by main source, 2005-2015 (% of total financing)

	2005			2008			2010			2015		
	Social contrib.	Govt. revenue	Other receipts	Social contrib.	Govt. revenue	Other receipts	Social contrib.	Govt. revenue	Other receipts	Social contrib.	Govt. revenue	Other receipts
EU	64.6	21.5	13.9	65.6	21.1	13.3	64.2	22.2	13.6	63.2	22.9	13.9
BE	29.7	4.5	65.8	28.3	3.2	68.5	26.8	3.0	70.2	24.7	2.7	72.5
BG	:	:	:	77.2	16.7	6.1	62.9	27.7	9.4	67.7	22.4	9.9
CZ	96.8	2.7	0.5	98.8	0.8	0.4	88.9	10.8	0.4	89.3	9.9	0.7
DE	58.4	33.7	7.9	61.2	33.2	5.6	61.0	32.7	6.3	61.8	32.6	5.6
EE	:	:	:	76.3	21.3	2.4	75.1	21.5	3.4	74.1	21.9	4.0
EL	61.5	34.6	4.0	57.1	39.9	3.0	58.1	37.6	4.4	52.7	41.1	6.1
ES	:	:	:	:	:	:	81.8	9.5	8.7	79.4	14.3	6.3
HR	:	:	:	56.1	43.1	0.8	49.9	49.4	0.7	48.6	46.8	4.7
IT	65.7	22.4	11.9	67.1	21.1	11.8	63.7	23.8	12.5	63.4	23.6	13.1
CY	55.4	26.1	18.5	56.3	25.1	18.7	60.3	29.8	9.9	62.9	32.7	4.5
LV	91.8	4.4	3.9	90.9	3.8	5.4	65.3	30.3	4.4	84.2	10.4	5.4
LT	91.3	8.4	0.2	90.0	9.8	0.2	80.6	19.1	0.3	82.5	17.3	0.2
LU	:	:	:	:	:	:	:	:	:	67.1	22.5	10.4
HU	75.2	23.1	1.6	78.8	18.7	2.5	78.8	18.8	2.5	99.2	0.7	0.1
MT	73.5	26.5	0.0	67.1	32.9	0.0	56.6	43.4	0.0	44.1	55.9	0.0
NL	62.5	2.2	35.3	64.3	1.4	34.3	65.3	1.6	33.0	55.3	1.0	43.7
AT	65.5	30.6	3.9	65.8	30.3	4.0	63.1	31.7	5.2	63.9	30.7	5.4
RO	89.9	8.3	1.8	83.4	16.0	0.6	68.0	30.6	1.4	68.5	31.2	0.4
SK	65.7	4.9	29.4	27.3	2.2	70.5	24.9	2.3	72.8	41.1	6.5	52.3
FI	78.9	5.6	15.5	75.6	5.1	19.3	80.2	5.4	14.5	82.3	5.3	12.3
SE	94.5	5.5	0.0	96.0	4.0	0.0	96.5	3.4	0.0	96.7	3.3	0.0
UK	:	:	:	70.0	4.6	25.5	70.8	3.5	25.7	59.4	16.8	23.8
RS	:	:	:	58.7	35.5	5.8	55.9	41.4	2.7	61.7	36.7	1.7

Note: Transfers from other schemes are a significant part of Other receipts in BE, accounting for 72% of total financing in 2015, SK, accounting for 43% in 2015, and IT, accounting for 12% in 2015. There are no data on how the schemes from which funding is transferred are financed. EU totals cover only the MS included in the table. To ensure consistency over time, the total is estimated for all years by assuming for the countries where data are missing for particular years that the figures are the same as those for the nearest available year.

Source: ESSPROS data by scheme, own calculations

Table A.10b Breakdown of the financing of survivors' benefits by social contributions by sub-category, 2005-2015 (% of total financing)

	2005				2008				2010				2015			
	Employers	Employees	Self-employed	Benefit recipients	Employers	Employees	Self-employed	Benefit recipients	Employers	Employees	Self-employed	Benefit recipients	Employers	Employees	Self-employed	Benefit recipients
EU	41.4	18.2	4.8	0.3	42.1	17.8	5.4	0.3	41.3	17.4	5.2	0.3	39.8	17.6	5.5	0.3
BE	8.0	21.0	0.0	0.6	22.7	4.6	0.0	1.0	21.6	4.4	0.0	0.8	21.0	3.0	0.0	0.8
BG	:	:	:	:	50.2	23.3	3.4	0.3	39.1	19.5	4.1	0.2	39.2	23.6	4.3	0.6
CZ	68.7	22.4	5.7	0.0	70.0	23.0	5.8	0.0	62.8	20.4	5.6	0.0	61.7	22.5	5.1	0.0
DE	33.6	21.8	2.6	0.4	35.0	23.3	2.5	0.4	35.1	22.9	2.5	0.4	35.2	23.6	2.5	0.5
EE	:	:	:	:	76.3	0.0	0.0	0.0	75.1	0.0	0.0	0.0	74.1	0.0	0.0	0.0
EL	36.7	18.6	6.2	0.0	34.7	15.7	6.7	0.0	35.5	15.9	6.7	0.0	32.9	13.9	5.9	0.0
ES	:	:	:	:	:	:	:	:	61.2	12.0	7.9	0.7	58.4	11.7	8.6	0.7
HR	:	:	:	:	1.5	50.3	4.0	0.2	1.5	45.0	3.2	0.2	1.3	44.1	2.8	0.2
IT	44.3	12.8	8.6	0.0	43.0	13.2	10.9	0.0	41.5	12.4	9.8	0.0	40.0	12.7	10.7	0.0
CY	26.5	25.2	3.6	0.1	26.7	25.9	3.7	0.1	28.8	28.1	3.3	0.1	29.4	30.7	2.8	0.1
LV	67.0	24.6	0.1	0.0	66.5	24.2	0.1	0.0	47.7	17.5	0.1	0.0	58.8	25.3	0.1	0.0
LT	85.7	4.8	0.8	0.0	84.6	4.5	0.8	0.0	72.1	7.3	1.2	0.0	72.0	8.9	1.5	0.0
LU	:	:	:	:	:	:	:	:	:	:	:	:	30.8	32.4	3.1	0.8
HU	62.4	12.5	0.4	0.0	66.6	11.6	0.6	0.0	65.3	12.9	0.7	0.0	67.4	30.3	1.0	0.4
MT	47.2	21.4	4.9	0.0	42.9	19.5	4.7	0.0	36.2	16.4	3.9	0.0	28.3	12.8	3.0	0.0
NL	34.8	27.1	0.6	0.0	36.6	27.0	0.7	0.0	35.2	29.3	0.8	0.0	31.6	23.1	0.6	0.0
AT	35.0	26.5	4.0	0.0	35.2	26.6	4.0	0.0	33.7	25.5	3.9	0.0	33.8	25.6	4.5	0.0
RO	67.5	21.6	0.8	0.0	59.3	23.3	0.8	0.0	50.0	17.3	0.7	0.0	48.8	19.4	0.3	0.0
SK	39.9	21.6	3.7	0.5	15.6	10.1	1.5	0.1	14.1	9.2	1.5	0.1	25.4	13.5	2.2	0.1
FI	61.0	13.2	4.7	0.1	59.7	11.7	4.2	0.1	62.3	13.0	4.8	0.0	60.6	16.2	5.6	0.0
SE	92.2	0.0	2.3	0.0	93.2	0.0	2.8	0.0	93.6	0.0	3.0	0.0	94.4	0.0	2.4	0.0
UK	:	:	:	:	52.9	16.4	0.6	0.0	55.7	14.5	0.5	0.0	43.2	15.7	0.6	0.0
RS	:	:	:	:	26.9	27.0	4.8	0.0	26.1	25.4	4.4	0.0	26.6	30.0	5.1	0.0

Note: See Notes to Table 10a

Source: ESSPROS data by scheme, own calculations

Table A.10c Share of total financing from earmarked taxes, 2005-2015 (%)

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
BE	0.00	0.00	0.03	0.03	0.03	0.03	0.00	0.03	0.04	0.03	0.00
EL	4.2	3.9	3.8	3.6	4.0	4.0	4.1	2.9	3.5	5.0	2.3

Source: ESSPROS data by scheme, own calculations

Table A.11a Division of financing of invalidity benefits by main source, 2005-2015 (% of total financing)

	2005			2008			2010			2015		
	Social contrib.	Govt. revenue	Other receipts	Social contrib.	Govt. revenue	Other receipts	Social contrib.	Govt. revenue	Other receipts	Social contrib.	Govt. revenue	Other receipts
EU	45.8	40.8	13.4	44.4	41.9	13.7	42.4	43.1	14.5	39.3	46.7	14.0
BE	1.5	24.2	74.4	1.4	24.3	74.3	1.1	23.4	75.5	4.4	20.8	74.8
BG	:	:	:	36.0	62.5	1.5	25.2	72.9	1.9	29.7	68.2	2.1
CZ	84.1	14.9	1.0	81.2	18.4	0.5	67.1	30.7	2.1	65.9	32.1	1.9
DE	55.9	39.1	5.0	55.3	40.1	4.6	54.1	41.3	4.6	57.3	38.8	3.9
EE	:	:	:	65.6	31.4	3.0	65.9	30.1	4.0	66.4	29.3	4.3
EL	50.2	45.1	4.7	44.1	52.5	3.4	42.3	53.8	3.9	34.7	59.3	6.1
ES	:	:	:	:	:	:	63.3	25.2	11.5	62.4	27.9	9.7
HR	:	:	:	47.0	51.9	1.1	41.5	57.5	0.9	38.8	57.0	4.3
IT	17.4	32.7	49.9	17.1	30.7	52.2	15.4	32.9	51.8	16.9	31.7	51.4
CY	36.6	36.3	27.0	36.6	39.2	24.2	37.5	45.4	17.1	31.8	45.1	23.1
LV	65.0	34.1	0.9	64.2	35.0	0.8	48.9	50.5	0.6	54.9	44.7	0.4
LT	59.8	39.6	0.6	63.4	35.9	0.7	55.7	42.6	1.7	56.2	43.0	0.8
LU	:	:	:	:	:	:	65.4	26.7	7.9	65.8	29.0	5.2
HU	53.1	44.9	2.0	51.8	46.6	1.6	53.2	45.2	1.6	43.3	56.6	0.1
MT	53.3	38.3	8.4	46.4	45.0	8.6	37.0	53.8	9.2	26.4	65.2	8.4
NL	70.3	15.4	14.3	65.9	24.9	9.2	62.7	29.3	8.0	51.5	41.7	6.8
AT	53.1	38.4	8.5	50.7	40.3	9.0	46.1	43.4	10.5	44.5	44.3	11.2
RO	60.9	37.0	2.0	61.5	37.7	0.8	51.0	47.3	1.6	44.3	54.9	0.8
SK	70.9	24.8	4.3	67.1	22.3	10.5	62.9	27.8	9.3	67.6	26.8	5.6
FI	58.3	32.3	9.4	51.8	37.1	11.0	46.5	46.4	7.2	40.8	54.3	4.9
SE	53.6	43.8	2.6	48.5	48.4	3.1	41.2	54.5	4.3	24.7	68.7	6.6
UK	:	:	:	26.1	73.8	0.1	24.6	75.3	0.1	16.5	83.4	0.0
RS	:	:	:	38.3	57.9	3.8	38.0	60.2	1.8	38.7	60.3	1.1

Note: Transfers from other schemes are a significant part of Other receipts in BE, accounting for 71% of total financing in 2015, IT, accounting for 51% in 2015 and AT, accounting for 10% in 2015. There are no data on how the schemes from which funding is transferred are financed. EU totals cover only the MS included in the table. To ensure consistency over time, the total is estimated for all years by assuming for the countries where data are missing for particular years that the figures are the same as those for the nearest available year.

Source: ESSPROS data by scheme, own calculations

Table A.11b Breakdown of the financing of disability benefits by social contributions by sub-category, 2005-2015 (% of total financing)

	2005				2008				2010				2015			
	Employers	Employees	Self-employed	Benefit recipients	Employers	Employees	Self-employed	Benefit recipients	Employers	Employees	Self-employed	Benefit recipients	Employers	Employees	Self-employed	Benefit recipients
EU	32.5	10.2	1.9	1.2	31.4	9.9	1.9	1.3	29.8	9.4	1.8	1.4	25.7	10.3	1.5	1.8
BE	1.1	0.3	0.1	0.0	1.2	0.2	0.0	0.0	0.8	0.2	0.0	0.0	0.9	3.5	0.0	0.0
BG	:	:	:	:	24.1	10.1	1.5	0.4	18.2	5.6	1.2	0.2	20.1	7.5	1.5	0.7
CZ	60.3	18.7	5.1	0.0	58.1	18.2	4.8	0.0	47.8	14.9	4.4	0.0	47.4	14.4	4.1	0.0
DE	31.9	18.7	1.7	3.6	31.7	18.2	1.6	3.9	30.8	17.6	1.5	4.2	31.0	20.1	1.3	5.0
EE	:	:	:	:	65.6	0.0	0.0	0.0	65.9	0.0	0.0	0.0	66.4	0.0	0.0	0.0
EL	25.8	17.1	7.2	0.0	22.5	14.0	7.5	0.0	21.5	13.6	7.1	0.0	17.6	11.2	5.9	0.0
ES	:	:	:	:					47.4	9.3	6.1	0.5	46.0	9.1	6.7	0.6
HR	:	:	:	:	1.3	42.2	3.4	0.2	1.2	37.5	2.6	0.2	1.1	35.3	2.3	0.2
IT	13.7	1.8	1.9	0.0	13.2	1.8	2.1	0.0	11.9	1.7	1.8	0.0	12.6	2.6	1.8	0.0
CY	17.9	16.4	2.3	0.0	17.6	16.6	2.3	0.0	18.1	17.4	2.0	0.0	15.4	14.9	1.5	0.0
LV	50.2	14.7	0.1	0.0	50.8	13.3	0.1	0.0	38.3	10.6	0.1	0.0	42.6	12.2	0.1	0.0
LT	53.2	5.6	1.0	0.0	56.7	5.7	1.0	0.0	48.4	6.3	1.1	0.0	48.5	6.2	1.5	0.0
LU	:	:	:	:	:	:	:	:	19.4	38.6	3.7	3.7	19.9	38.2	3.7	4.0
HU	42.6	10.4	0.1	0.0	44.1	7.3	0.4	0.0	44.5	8.2	0.4	0.0	17.3	24.8	0.8	0.4
MT	33.8	15.9	3.6	0.0	29.2	13.8	3.3	0.0	23.3	11.0	2.6	0.0	16.7	7.9	1.9	0.0
NL	66.5	2.8	1.0	0.0	63.9	1.9	0.1	0.0	61.2	1.5	0.0	0.0	50.4	1.1	0.0	0.0
AT	31.4	19.0	2.6	0.0	30.6	17.7	2.5	0.0	27.9	15.9	2.3	0.0	26.4	14.8	2.6	0.7
RO	43.3	17.0	0.6	0.0	42.7	18.1	0.6	0.0	35.0	15.4	0.6	0.0	29.6	14.5	0.2	0.0
SK	38.1	29.3	3.1	0.4	36.1	27.4	3.4	0.2	33.7	25.5	3.4	0.2	36.2	28.1	3.2	0.1
FI	44.7	8.8	2.1	2.7	39.4	8.0	1.8	2.6	33.4	8.3	1.8	3.0	27.0	8.6	1.7	3.5
SE	52.4	0.0	1.2	0.0	47.2	0.0	1.2	0.0	40.2	0.0	1.0	0.0	24.5	0.0	0.1	0.0
UK	:	:	:	:	17.4	8.3	0.5	0.0	16.7	7.4	0.5	0.0	11.1	5.1	0.3	0.0
RS	:	:	:	:	17.6	17.6	3.1	0.0	17.8	17.3	3.0	0.0	16.7	18.8	3.2	0.0

Note: See Notes to Table 11a

Source: ESSPROS data by scheme, own calculations

Table A.11c Share of total financing from earmarked taxes, 2005-2015 (%)

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
BE	1.4	1.4	1.5	1.3	1.3	1.2	1.2	1.2	1.2	1.1	1.0
EL	4.8	4.5	4.1	4.0	4.4	4.2	4.3	3.0	3.5	4.9	2.3
LU								0.1	0.1	0.1	0.1

Note: There are also some earmarked taxes for this function in LT, but they amounted to less than 0.1% of total financing in all years.

Source: ESSPROS data by scheme, own calculations

Table A.12a Division of financing of unemployment benefits by main source, 2005-2015 (% of total financing)

	2005			2008			2010			2015		
	Social contrib.	Govt. revenue	Other receipts	Social contrib.	Govt. revenue	Other receipts	Social contrib.	Govt. revenue	Other receipts	Social contrib.	Govt. revenue	Other receipts
EU	56.8	33.5	9.7	54.4	35.4	10.2	49.3	39.8	11.0	55.4	35.8	8.8
BE	9.5	12.4	78.1	9.1	13.4	77.4	8.7	12.1	79.3	2.2	23.5	74.3
BG	:	:	:	70.8	29.2	0.0	89.4	10.6	0.0	87.0	11.4	1.6
CZ	71.5	28.4	0.1	68.1	31.9	0.0	69.9	30.1	0.1	67.7	32.2	0.1
DE	60.5	34.1	5.4	42.7	50.7	6.6	37.6	56.7	5.7	54.8	43.9	1.2
EE	:	:	:	60.0	20.4	19.6	71.0	0.0	29.0	71.7	0.0	28.3
EL	76.8	21.9	1.2	84.2	14.9	0.9	75.9	23.7	0.4	81.0	18.8	0.2
ES	:	:	:	:	:	:	61.9	35.8	2.3	70.2	29.5	0.3
HR	:	:	:	94.0	1.9	4.1	96.8	1.2	2.0	98.2	0.0	1.8
IT	34.7	44.4	20.9	68.4	20.9	10.6	54.1	33.4	12.4	50.3	37.3	12.4
CY	62.0	12.0	26.0	73.6	10.9	15.5	72.2	8.9	18.9	75.6	16.7	7.7
LV	76.2	11.7	12.1	93.6	2.3	4.1	65.5	7.1	27.4	88.7	2.8	8.5
LT	89.6	7.7	2.7	80.9	12.6	6.4	56.6	11.9	31.5	80.0	18.3	1.7
LU	:	:	:	:	:	:	0.0	93.6	6.4	0.0	94.4	5.6
HU	73.8	26.2	0.0	62.5	37.5	0.0	67.7	32.3	0.0	53.6	46.4	0.0
MT	6.7	90.7	2.6	5.7	85.9	8.5	5.0	86.9	8.1	1.7	92.6	5.7
NL	61.6	33.0	5.5	63.1	31.4	5.5	47.3	40.4	12.3	65.1	26.6	8.4
AT	90.9	8.2	1.0	97.5	1.5	1.0	97.2	2.1	0.7	95.5	2.5	2.0
RO	87.3	0.0	12.7	98.7	0.0	1.3	98.7	0.0	1.3	99.7	0.0	0.3
SK	85.0	9.4	5.6	77.6	6.5	16.0	69.7	14.2	16.1	82.8	9.1	8.1
FI	45.1	49.4	5.5	45.5	46.6	7.8	42.8	54.5	2.8	36.2	63.8	0.0
SE	86.7	13.3	0.0	98.0	2.0	0.0	97.5	2.5	0.0	88.4	11.6	0.0
UK	:	:	:	47.5	52.5	0.0	37.5	62.5	0.0	35.4	64.1	0.5
RS	:	:	:	50.4	49.4	0.2	45.8	53.7	0.5	72.2	27.8	0.1

Note: Transfers from other schemes are a significant part of Other receipts in BE, accounting for 71% of total financing in 2015, EE, accounting for 25% in 2015 and IT, accounting for 12% in 2015. There are no data on how the schemes from which funding is transferred are financed. EU totals cover only the MS included in the table. To ensure consistency over time, the total is estimated for all years by assuming for the countries where data are missing for particular years that the figures are the same as those for the nearest available year.

Source: ESSPROS data by scheme, own calculations

Table A.12b Breakdown of the financing of unemployment benefits by social contributions by sub-category, 2005-2015 (% of total financing)

	2005				2008				2010				2015			
	Employers	Employees	Self-employed	Benefit recipients	Employers	Employees	Self-employed	Benefit recipients	Employers	Employees	Self-employed	Benefit recipients	Employers	Employees	Self-employed	Benefit recipients
EU	38.8	17.8	0.1	0.1	41.5	12.7	0.1	0.1	39.2	9.9	0.1	0.1	43.0	12.3	0.0	0.1
BE	9.5	0.0	0.0	0.0	9.1	0.0	0.0	0.0	8.7	0.0	0.0	0.0	2.2	0.0	0.0	0.0
BG	:	:	:	:	51.5	18.8	0.0	0.6	73.1	15.4	0.0	0.8	63.3	21.3	0.7	1.7
CZ	58.8	10.0	2.7	0.0	58.1	7.9	2.1	0.0	66.1	0.0	3.8	0.0	65.2	0.0	2.5	0.0
DE	31.0	29.2	0.0	0.3	21.8	20.7	0.0	0.2	20.9	16.5	0.0	0.2	28.4	26.1	0.0	0.3
EE	:	:	:	:	20.6	39.4	0.0	0.0	24.4	46.6	0.0	0.0	24.7	47.1	0.0	0.0
EL	53.9	22.9	0.0	0.0	69.5	14.7	0.0	0.0	63.6	12.3	0.0	0.0	61.6	19.0	0.3	0.0
ES	:	:	:	:	:	:	:	:	52.2	9.7	0.1	0.0	58.2	11.9	0.1	0.0
HR	:	:	:	:	94.0	0.0	0.0	0.0	96.8	0.0	0.0	0.0	98.2	0.0	0.0	0.0
IT	34.2	0.5	0.0	0.0	68.2	0.2	0.0	0.0	53.8	0.3	0.0	0.0	50.0	0.3	0.0	0.0
CY	44.6	16.1	1.3	0.0	53.1	19.3	1.2	0.0	50.3	20.5	1.4	0.0	53.6	20.5	1.4	0.0
LV	57.9	18.3	0.0	0.0	72.7	20.8	0.0	0.0	50.0	15.5	0.0	0.0	64.9	23.7	0.0	0.0
LT	88.8	0.7	0.1	0.0	79.8	1.0	0.2	0.0	55.6	0.8	0.1	0.0	80.0	0.0	0.0	0.0
LU	:	:	:	:	:	:	:	:					0.0	0.0	0.0	0.0
HU	56.4	17.5	0.0	0.0	47.0	15.4	0.0	0.0	49.4	18.3	0.0	0.0	38.4	15.2	0.0	0.0
MT	4.2	2.0	0.5	0.0	3.6	1.7	0.4	0.0	3.1	1.5	0.4	0.0	1.1	0.5	0.1	0.0
NL	35.9	25.7	0.0	0.0	45.5	17.7	0.0	0.0	47.3	0.0	0.0	0.0	65.1	0.0	0.0	0.0
AT	50.5	40.4	0.1	0.0	53.5	44.0	0.0	0.0	53.4	43.8	0.0	0.0	51.9	43.6	0.0	0.0
RO	69.5	17.7	0.0	0.1	67.2	31.5	0.0	0.0	49.9	48.9	0.0	0.0	49.9	49.8	0.0	0.0
SK	57.4	26.5	0.4	0.7	51.0	25.2	1.0	0.4	49.2	19.4	0.8	0.4	53.6	28.5	0.5	0.2
FI	33.3	11.6	0.2	0.0	35.5	9.9	0.2	0.0	30.9	11.7	0.2	0.0	25.3	10.9	0.0	0.0
SE	79.8	5.8	1.0	0.0	71.4	26.1	0.5	0.0	85.5	11.7	0.3	0.0	79.2	9.2	0.0	0.0
UK	:	:	:	:	43.7	3.5	0.2	0.1	34.4	2.8	0.2	0.1	33.8	1.5	0.1	0.0
RS	:	:	:	:	30.9	17.7	1.8	0.0	28.8	15.6	1.4	0.0	46.6	23.5	2.1	0.0

Note: See Notes to Table 12a

Source: ESSPROS data by scheme, own calculations

Table A.12c Share of total financing from earmarked taxes, 2005-2015 (%)

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
LT	7.4	7.6	8.6	7.3	2.2	2.2	3.1	7.1	8.1	9.2	7.7
LU								60.4	75.8	74.9	76.4

Source: ESSPROS data by scheme, own calculations

Table A.13a Division of financing of family and child benefits by main source, 2005-2015 (% of total financing)

	2005			2008			2010			2015		
	Social contrib.	Govt. revenue	Other receipts	Social contrib.	Govt. revenue	Other receipts	Social contrib.	Govt. revenue	Other receipts	Social contrib.	Govt. revenue	Other receipts
EU	16.5	78.2	5.3	16.8	78.2	5.0	17.1	77.5	5.4	13.7	83.1	3.2
BE	30.2	29.8	40.0	31.0	31.3	37.6	30.7	31.3	38.0	24.0	61.2	14.7
BG	:	:	:	41.8	58.0	0.2	51.4	48.6	0.0	54.0	46.0	0.0
CZ	8.8	91.1	0.2	8.5	91.5	0.0	9.7	89.7	0.6	11.1	88.6	0.3
DE	3.8	93.6	2.6	4.1	94.6	1.3	3.7	95.2	1.2	3.6	95.4	0.9
EE	:	:	:	75.6	22.3	2.0	75.1	21.9	3.0	74.3	22.1	3.5
EL	64.6	35.1	0.3	59.5	39.2	1.3	58.4	38.5	3.0	38.2	59.4	2.5
ES	:	:	:	:	:	:	24.9	71.3	3.8	23.7	72.9	3.4
HR	:	:	:	15.3	83.8	0.9	15.1	83.2	1.7	14.3	84.5	1.2
IT	48.3	37.5	14.2	44.0	44.9	11.1	40.1	49.6	10.3	29.2	62.5	8.3
CY	7.0	68.3	24.7	9.1	67.2	23.7	10.8	74.0	15.2	12.3	72.6	15.1
LV	15.1	84.9	0.0	53.3	46.7	0.0	35.3	64.7	0.0	35.6	64.4	0.0
LT	27.1	71.9	1.0	37.6	60.0	2.3	47.5	50.2	2.3	48.3	49.5	2.2
LU	:	:	:	:	:	:	8.6	90.1	1.3	8.9	89.9	1.2
HU	11.6	87.9	0.5	11.8	87.3	0.9	7.8	91.1	2.8	12.2	87.8	0.0
MT	2.9	93.7	3.4	2.7	94.2	3.1	2.2	94.9	2.9	1.9	95.3	2.8
NL	33.7	66.3	0.0	1.3	98.7	0.0	1.3	98.7	0.0	1.3	98.7	0.0
AT	49.7	45.8	4.4	52.6	43.0	4.4	51.0	43.9	5.1	52.0	43.0	5.0
RO	25.6	72.1	2.3	14.3	84.3	1.3	17.5	80.9	1.6	14.8	83.0	2.2
SK	7.3	92.3	0.4	8.7	90.2	1.1	7.7	92.0	0.4	12.7	86.3	1.0
FI	9.2	90.8	0.0	16.1	83.9	0.0	18.6	81.4	0.0	20.9	79.1	0.0
SE	22.0	71.9	6.1	21.4	71.2	7.3	20.0	72.2	7.8	22.0	68.4	9.7
UK	:	:	:	5.9	94.1	0.0	8.1	91.9	0.0	4.9	95.1	0.0
RS	:	:	:	0.0	100.0	0.0	0.0	100.0	0.0	0.0	99.9	0.1

Note: Transfers from other schemes are a significant part of Other receipts in BE, accounting for 13% of total financing in 2015, CY, accounting for 12% in 2015, and IT, accounting for 8% in 2015. There are no data on how the schemes from which funding is transferred are financed.

EU totals cover only the MS included in the table. To ensure consistency over time, the total is estimated for all years by assuming for the countries where data are missing for particular years that the figures are the same as those for the nearest available year.

Source: ESSPROS data by scheme, own calculations

Table A.13b Breakdown of the financing of family and child benefits by social contributions by sub-category, 2005-2015 (% of total financing)

	2005				2008				2010				2015			
	Employers	Employees	Self-employed	Benefit recipients	Employers	Employees	Self-employed	Benefit recipients	Employers	Employees	Self-employed	Benefit recipients	Employers	Employees	Self-employed	Benefit recipients
EU	12.5	2.3	1.6	0.1	13.5	1.4	1.9	0.1	13.5	1.3	2.1	0.1	10.8	1.1	1.7	0.1
BE	8.8	0.1	21.3	0.0	8.6	0.0	22.4	0.0	8.2	0.0	22.4	0.0	1.1	0.0	22.9	0.0
BG	:	:	:	:	30.7	10.2	0.7	0.3	44.2	6.1	0.9	0.2	44.3	8.0	1.1	0.6
CZ	6.6	2.1	0.1	0.0	6.4	2.0	0.1	0.0	9.5	0.0	0.1	0.0	11.0	0.0	0.1	0.0
DE	3.2	0.3	0.2	0.1	3.4	0.3	0.2	0.1	3.2	0.2	0.2	0.1	3.1	0.2	0.1	0.1
EE	:	:	:	:	75.6	0.0	0.0	0.0	75.1	0.0	0.0	0.0	74.3	0.0	0.0	0.0
EL	51.2	12.9	0.5	0.0	46.1	13.0	0.5	0.0	45.0	12.8	0.6	0.0	29.5	8.0	0.7	0.0
ES	:	:	:	:	:	:	:	:	19.4	3.1	2.2	0.2	18.2	3.0	2.3	0.2
HR	:	:	:	:	14.6	0.0	0.7	0.0	14.3	0.0	0.7	0.0	13.5	0.0	0.7	0.1
IT	46.3	0.3	1.7	0.0	41.9	0.3	1.8	0.0	38.0	0.3	1.8	0.0	27.8	0.3	1.1	0.0
CY	3.7	2.9	0.4	0.0	4.9	3.6	0.5	0.0	5.8	4.5	0.5	0.0	6.7	5.1	0.5	0.0
LV	11.0	4.1	0.0	0.0	38.8	14.4	0.1	0.0	25.7	9.5	0.1	0.0	24.6	10.9	0.1	0.0
LT	23.3	3.8	0.0	0.0	32.6	5.1	0.0	0.0	47.2	0.0	0.3	0.0	47.8	0.0	0.5	0.0
LU	:	:	:	:	:	:	:	:	5.6	2.4	0.2	0.4	5.8	2.4	0.2	0.4
HU	9.2	2.4	0.0	0.0	6.5	5.2	0.0	0.1	2.8	5.0	0.0	0.0	4.9	7.0	0.2	0.1
MT	1.8	0.9	0.2	0.0	1.7	0.8	0.2	0.0	1.4	0.7	0.2	0.0	1.2	0.6	0.1	0.0
NL	1.3	32.4	0.0	0.0	1.3	0.0	0.0	0.0	1.3	0.0	0.0	0.0	1.3	0.0	0.0	0.0
AT	46.6	1.8	0.4	0.9	49.5	1.8	0.4	0.9	47.7	1.9	0.4	1.0	49.0	1.7	0.4	0.9
RO	18.0	7.3	0.2	0.0	9.6	4.6	0.1	0.0	11.6	5.6	0.2	0.0	9.1	5.6	0.1	0.0
SK	3.2	3.3	0.7	0.1	3.9	3.9	0.8	0.1	3.3	3.3	0.7	0.3	5.9	5.7	1.1	0.0
FI	5.1	3.1	0.3	0.8	12.0	3.8	0.3	0.0	13.0	5.1	0.4	0.0	16.2	4.3	0.4	0.0
SE	21.4	0.0	0.6	0.0	20.8	0.0	0.7	0.0	19.3	0.0	0.6	0.0	21.6	0.0	0.3	0.0
UK	:	:	:	:	3.5	2.3	0.1	0.0	4.7	3.1	0.2	0.0	2.9	1.9	0.1	0.0
RS	:	:	:	:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Note: See Notes to Table 13a

Source: ESSPROS data by scheme, own calculations

Table A.13c Share of total financing from earmarked taxes, 2005-2015 (%)

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
BE	2.1	2.5	3.8	5.7	5.7	6.1	6.9	5.7	5.8	5.6	4.0
EL	0.3	0.3	0.3	0.3	0.0	0.3	0.2	0.2	0.2	0.3	0.2

Source: ESSPROS data by scheme, own calculations

Table A.14a Division of financing of housing benefits by main source, 2005-2015 (% of total financing)

	2005			2008			2010			2015		
	Social contrib.	Govt. revenue	Other receipts	Social contrib.	Govt. revenue	Other receipts	Social contrib.	Govt. revenue	Other receipts	Social contrib.	Govt. revenue	Other receipts
EU	1.1	94.9	3.9	1.4	94.3	4.3	1.8	91.7	6.5	0.4	99.5	0.1
BE	0.0	100.0	0.0	0.0	100.0	0.0	0.0	100.0	0.0	0.0	100.0	0.0
BG	:	:	:	0.0	100.0	0.0	0.0	100.0	0.0	0.0	100.0	0.0
CZ	3.5	96.5	0.0	4.9	95.1	0.0	2.3	96.9	0.8	0.7	99.3	0.0
DE	0.0	90.9	9.0	0.1	89.9	10.0	0.0	90.5	9.5	0.1	99.9	0.0
EE	:	:	:	0.0	99.0	1.0	0.0	98.5	1.5	0.0	99.3	0.7
EL	98.1	0.0	1.9	98.2	0.0	1.8	96.8	0.0	3.2	96.6	0.0	3.4
ES	:	:	:	:	:	:	0.6	98.1	1.3	0.8	98.2	0.9
HR	:	:	:	0.0	100.0	0.0	0.0	100.0	0.0	0.0	100.0	0.0
IT	0.0	84.5	15.5	0.0	92.1	7.9	0.0	95.3	4.7	0.0	97.2	2.8
CY	3.6	93.9	2.5	0.6	99.3	0.1	0.9	98.6	0.6	1.2	98.5	0.3
LV	0.0	100.0	0.0	0.0	100.0	0.0	0.0	93.0	7.0	0.0	100.0	0.0
LT	0.0	100.0	0.0	0.0	100.0	0.0	0.0	100.0	0.0	0.0	100.0	0.0
LU	:	:	:	:	:	:	0.0	99.9	0.1	0.0	99.9	0.1
HU	0.0	100.0	0.0	0.0	100.0	0.0	0.0	100.0	0.0	0.0	100.0	0.0
MT	0.0	3.1	96.9	0.0	2.1	97.9	0.0	1.6	98.4	0.0	0.0	100.0
NL	0.0	100.0	0.0	0.0	100.0	0.0	0.0	100.0	0.0	0.0	100.0	0.0
AT	0.0	96.0	4.0	0.0	96.6	3.4	0.0	96.4	3.6	0.0	95.9	4.1
RO	0.0	0.0	0.0	0.0	87.5	12.5	0.0	93.3	6.7	0.0	93.7	6.3
SK	:	:	:	0.0	100.0	0.0	0.0	100.0	0.0	0.0	100.0	0.0
FI	0.0	100.0	0.0	0.0	100.0	0.0	0.0	100.0	0.0	0.0	100.0	0.0
SE	0.0	100.0	0.0	0.0	100.0	0.0	0.0	100.0	0.0	0.0	100.0	0.0
UK	:	:	:	0.0	100.0	0.0	0.0	100.0	0.0	0.0	100.0	0.0
RS	:	:	:	0.0	0.0	0.0	37.2	8.6	54.2	7.1	80.8	12.1

Note: For BE, figures for 2005 relate to 2006. For RO, there was zero expenditure on housing benefits before 2008. For RS, there was no expenditure on housing benefits before 2012; the 2010 figures relate to 2012. EU totals cover only the MS included in the table. To ensure consistency over time, the total is estimated for all years by assuming for the countries where data are missing for particular years that the figures are the same as those for the nearest available year.

Source: ESSPROS data by scheme, own calculations

Table A.14b Breakdown of the financing of housing benefits by social contributions by sub-category, 2005-2015 (% of total financing)

	2005				2008				2010				2015			
	Employers	Employees	Self-employed	Benefit recipients	Employers	Employees	Self-employed	Benefit recipients	Employers	Employees	Self-employed	Benefit recipients	Employers	Employees	Self-employed	Benefit recipients
CZ	3.5	0.0	0.0	0.0	4.9	0.0	0.0	0.0	2.3	0.0	0.0	0.0	0.7	0.0	0.0	0.0
EL	42.2	55.9	0.0	0.0	42.2	56.0	0.0	0.0	41.6	55.2	0.0	0.0	0.0	96.6	0.0	0.0
ES	:	:	:	:	:	:	:	:	0.5	0.1	0.0	0.0	0.6	0.1	0.1	0.0
CY	2.5	1.2	0.0	0.0	0.4	0.2	0.0	0.0	0.5	0.3	0.0	0.0	0.8	0.5	0.0	0.0
RS	:	:	:	:	0.0	0.0	0.0	0.0	18.6	18.6	0.0	0.0	3.6	3.6	0.0	0.0

Note: See Notes to Table 14a. Only countries in which housing benefits were financed by social contributions are included. For RS, figures for 2010 relate to 2012.

Source: ESSPROS data by scheme, own calculations

Table A.15a Division of financing of social exclusion benefits and those not classified elsewhere by main source, 2005-2015 (% of total financing)

	2005			2008			2010			2015		
	Social contrib.	Govt. revenue	Other receipts	Social contrib.	Govt. revenue	Other receipts	Social contrib.	Govt. revenue	Other receipts	Social contrib.	Govt. revenue	Other receipts
EU	1.9	94.7	3.4	1.8	95.1	3.1	2.6	93.2	4.2	0.8	95.0	4.2
BE	16.0	83.4	0.6	15.8	81.7	2.6	14.1	82.9	3.0	0.0	90.1	9.9
BG	:	:	:	0.0	100.0	0.0	0.0	100.0	0.0	0.0	100.0	0.0
CZ	30.7	66.4	2.9	49.5	44.7	5.8	41.9	50.4	7.7	39.3	55.2	5.5
DE	0.7	99.3	0.0	0.5	99.5	0.0	0.3	99.7	0.0	0.1	99.9	0.0
EE	:	:	:	12.3	86.5	1.2	8.7	89.5	1.8	9.3	89.7	1.1
EL	0.9	0.2	98.9	0.0	0.5	99.4	0.0	0.5	99.5	0.0	47.8	52.2
ES	:	:	:	:	:	:	0.0	88.3	11.7	0.0	86.8	13.2
HR	:	:	:	0.0	98.4	1.6	0.0	98.3	1.7	0.0	97.4	2.6
IT	2.7	85.0	12.3	3.1	88.3	8.6	2.5	91.7	5.8	1.8	93.2	5.0
CY	1.6	73.4	24.9	1.3	74.5	24.3	0.9	83.1	16.0	0.4	85.0	14.7
LV	0.0	99.9	0.1	0.0	99.2	0.8	0.0	99.9	0.1	0.0	99.4	0.6
LT	0.0	97.6	2.4	0.0	96.8	3.2	0.0	98.1	1.9	0.0	97.6	2.4
LU	:	:	:	:	:	:	0.0	99.8	0.2	0.0	99.7	0.3
HU	0.0	100.0	0.0	0.0	100.0	0.0	0.0	100.0	0.0	0.0	100.0	0.0
MT	0.0	83.7	16.3	0.0	88.6	11.4	0.0	87.8	12.2	0.0	85.6	14.4
NL	0.0	100.0	0.0	0.0	100.0	0.0	0.0	100.0	0.0	0.0	100.0	0.0
AT	0.6	79.4	20.0	0.4	80.2	19.4	0.3	80.6	19.1	0.1	81.9	18.0
RO	0.0	93.9	6.1	0.0	96.4	3.6	0.0	98.4	1.6	0.0	84.3	15.7
SK	0.0	96.5	3.5	0.0	95.0	5.0	0.0	96.2	3.8	0.0	93.5	6.5
FI	3.8	96.2	0.0	3.4	96.6	0.0	3.8	96.2	0.0	2.7	97.3	0.0
SE	0.0	92.4	7.6	0.0	91.9	8.1	0.0	91.5	8.5	0.0	85.9	14.1
UK	:	:	:	0.0	100.0	0.0	0.0	100.0	0.0	0.0	100.0	0.0
RS	:	:	:	21.0	79.0	0.0	8.8	91.2	0.0	10.4	88.6	1.0

Note: Transfers from other schemes are a significant part of Other receipts in AT, accounting for 16% of total financing in 2015. This proportion was 15% in CY, and 14% in SE in the same year. There are no data on how the schemes from which funding is transferred are financed. EU totals cover only the MS included in the table. To ensure consistency over time, the total is estimated for all years by assuming for the countries where data are missing for particular years that the figures are the same as those for the nearest available year.

Source: ESSPROS data by scheme, own calculations

Table A.15b Breakdown of the financing of social exclusion benefits by social contributions by sub-category, 2005-2015 (% of total financing)

	2005				2008				2010				2015			
	Employers	Employees	Self-employed	Benefit recipients	Employers	Employees	Self-employed	Benefit recipients	Employers	Employees	Self-employed	Benefit recipients	Employers	Employees	Self-employed	Benefit recipients
EU	1.4	0.3	0.2	0.0	1.2	0.3	0.3	0.0	1.8	0.5	0.4	0.0	0.2	0.4	0.3	0.0
BE	16.0	0.0	0.0	0.0	15.7	0.0	0.0	0.0	14.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CZ	5.9	24.7	0.0	0.0	10.4	39.0	0.0	0.1	9.6	32.2	0.0	0.1	7.4	31.9	0.0	0.0
DE	0.0	0.0	0.7	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.1	0.0
EE	:	:	:	:	12.3	0.0	0.0	0.0	8.7	0.0	0.0	0.0	9.3	0.0	0.0	0.0
IT	0.3	0.8	1.7	0.0	0.2	0.3	2.6	0.0	0.1	0.2	2.2	0.0	0.1	0.2	1.6	0.0
CY	1.0	0.5	0.1	0.0	0.9	0.4	0.0	0.0	0.6	0.3	0.0	0.0	0.2	0.2	0.0	0.0
AT	0.3	0.2	0.0	0.0	0.2	0.2	0.0	0.0	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0
FI	3.8	0.0	0.0	0.0	3.4	0.0	0.0	0.0	3.8	0.0	0.0	0.0	2.7	0.0	0.0	0.0
RS	:	:	:	:	21.0	0.0	0.0	0.0	8.8	0.0	0.0	0.0	10.4	0.0	0.0	0.0

Note: See Notes to Table 15a. Only countries in which social exclusion benefits and other benefits not classified elsewhere were financed by social contributions are included.

Source: ESSPROS data by scheme, own calculations

ANNEX 3 PRESENTATION OF THE EUROPEAN SOCIAL POLICY NETWORK – APRIL 2019

ESPN Network Management Team and Network Core Team

The European Social Policy Network (ESPN) is managed jointly by the Luxembourg Institute of Socio-Economic Research (LISER), the independent research company APPLICA and the European Social Observatory (OSE).

The ESPN Network Management Team is responsible for the overall supervision and coordination of the ESPN. It consists of six members:

NETWORK MANAGEMENT TEAM

Eric Marlier (*LISER, LU*)
Project Director
Email: eric.marlier@liser.lu

Isabel Baptista (*Independent social policy researcher, PT*)
Social Inclusion Leader
Email: imrpsb@gmail.com

Marcel Fink (*Institute for Advanced Studies, AT*)
MISSOC Users' Perspective
Email: fink@ihs.ac.at

Loredana Sementini (*Applica, BE*)
Communication/meetings/editing and MISSOC Coordinator
Email: LS@applica.be

Bart Vanhercke (*European Social Observatory, BE*)
Social Protection Leader
Email: vanhercke@ose.be

Terry Ward (*Applica, BE*)
MISSOC Leader
Email: TW@applica.be

National independent experts in social inclusion and social protection

ALBANIA

Genc Burazeri (*University of Medicine*)
Expert in Healthcare and Long-term care
Email: gburazeri@yahoo.com

Elira Jorgoni (*Independent social policy researcher*)
Expert in Social inclusion and Social Protection
Email: elira.jorgoni@gmail.com

Enkelejd Musabelliu (*Abkons*)
Expert in Pensions
Email: emusabelliu@gmail.com

National coordination: Elira Jorgoni

AUSTRIA

Marcel Fink (*Institute for Advanced Studies*)
 Expert in Healthcare, Long-term care, Pensions and Social inclusion
 Email: fink@ihs.ac.at

Raphaela Hye (*Institute for Advanced Studies*)
 Expert in Social inclusion
 Email: hyee@ihs.ac.at

Monika Riedel (*Institute for Advanced Studies*)
 Expert in Healthcare and Long-term care
 Email: riedel@ihs.ac.at

National coordination: Marcel Fink

BELGIUM

Veerle Buffel (*HIVA, KULeuven*)
 Expert in Healthcare and Long-term care
 Email: veerle.buffel@kuleuven.be

Frederic De Wispelaere (*HIVA, KULeuven*)
 Expert in Pensions
 Email: frederic.dewispelaere@kuleuven.be

Ides(bald) Nicaise (*HIVA, KULeuven*)
 Expert in Social inclusion
 Email: ides.nicaise@kuleuven.be

Jozef Pacolet (*HIVA, KULeuven*)
 Expert in Pensions
 Email: jozef.pacolet@kuleuven.be

Wouter Schepers (*HIVA, KULeuven*)
 Expert in Social inclusion
 Email: wouter.schepers@hiva.kuleuven.be

National coordination: Ides Nicaise

BOSNIA AND HERZEGOVINA

Mirna Jusić (*Analitika – Center for Social research*)
 Expert in Healthcare, Long-term care, Pensions and Social inclusion
 Email: mirna.jusic@analitika.ba

Nikolina Obradović (*University of Mostar*)
 Expert in Healthcare, Long-term care, Pensions and Social inclusion
 Email: nikolina.obradovic@ff.sum.ba

Nermin Oruc (*Centre for Development Evaluation and Social Science Research*)
 Expert in Healthcare, Long-term care, Pensions and Social inclusion
 Email: noruc@cdeess.ba

National coordination: Nikolina Obradović

BULGARIA

George V. Bogdanov (*National Network for Children*)

Expert in Long-term care and Social inclusion

Email: george.bogdanov@nmd.bg

Lidia M. Georgieva (*Medical University, Sofia*)

Expert in Healthcare

Email: lidia1001@gmail.com

Boyan V. Zahariev (*Open Society Institute*)

Expert in Pensions

Email: bzahariev@osi.bg

National coordination: George Vasilev Bogdanov

CROATIA

Zdenko Babić (*University of Zagreb*)

Expert in Healthcare, Long-term care and Social inclusion

Email: zbabic@pravo.hr

Gojko Bežovan (*University of Zagreb*)

Expert in Long-term care and Pensions

Email: Gojko.bezovan@pravo.hr

Zoran Sućur (*University of Zagreb*)

Expert in Healthcare, Long-term care and Social inclusion

Email: zsucur@pravo.hr

National coordination: Gojko Bežovan

CYPRUS

Sofia N. Andreou (*University of Cyprus*)

Expert in Social inclusion

Email: andreou.sofia@ucy.ac.cy

Marios Kantaris (*Open University of Cyprus*)

Expert in Long-term care

Email: marios.kantaris@st.ouc.ac.cy

Christos Koutsampelas (*University of Peloponnese*)

Expert in Pensions and Social inclusion

Email: ch.koutsamp@uop.gr

Mamas Theodorou (*Open University of Cyprus*)

Expert in Healthcare

Email: m.theodorou@ouc.ac.cy

National coordination: Christos Koutsampelas

CZECHIA

Robert Jahoda (*Masaryk University*)

Expert in Pensions

Email: robert.jahoda@econ.muni.cz

Ivan Malý (*Masaryk University*)

Expert in Healthcare and Long-term care

Email: ivan@econ.muni.cz

Tomáš Sirovátka (*Masaryk University*)

Expert in Social inclusion

Email: sirovatk@fss.muni.cz

National coordination: Tomáš Sirovátka

DENMARK

Bent Greve (*Roskilde University*)

Expert in Healthcare

Email: bgr@ruc.dk

Jon Kvist (*Roskilde University*)

Expert in Long-term care, Pensions and Social inclusion

Email: jkvist@ruc.dk

National coordination: Jon Kvist

ESTONIA

Helen Biin (*Praxis*)

Expert in Social inclusion

Email: helen.biin@praxis.ee

Märt Masso (*Praxis*)

Expert in Social inclusion

Email: mart.massos@praxis.ee

Gerli Paat-Ahi (*Praxis*)

Expert in Healthcare and Long-term care

Email: gerli.paat-ahi@praxis.ee

Magnus Piirits (*Praxis*)

Expert in Pensions

Email: magnus.piirits@praxis.ee

National coordination: Märt Masso

FINLAND

Laura Kalliomaa-Puha (*University of Tampere*)

Expert in Healthcare and Long-term care

Email: Laura.Kalliomaa-Puha@staff.uta.fi

Olli Kangas (*Turku University*)

Expert in Healthcare, Pensions and Social inclusion

Email: olli.kangas@utu.fi

National coordination: Olli Kangas

FRANCE

Gilles Huteau (*EHESP - French School of Public Health*)

Expert in Healthcare and Pensions

Email: Gilles.Huteau@ehesp.fr

Blanche Le Bihan (*EHESP - French School of Public Health*)

Expert in Long-term care

Email: Blanche.Lebihan@ehesp.fr

Michel Legros (*EHESP - French School of Public Health & National Observatory on Poverty and Social Exclusion*)

Expert in Healthcare and Social inclusion

Email: Michel.Legros77@gmail.com

Claude Martin (*EHESP - French School of Public Health*)

Expert in Long-term care and Social inclusion

Email: Claude.Martin@ehesp.fr

Alis Sopadzhiyan (*EHESP - French School of Public Health*)

Expert in Healthcare

Email: Alis.Sopadzhiyan@ehesp.fr

National coordination: Claude Martin

GERMANY

Thomas Gerlinger (*University of Bielefeld*)

Expert in Healthcare and Long-term care

Email: thomas.gerlinger@uni-bielefeld.de

Uwe Fachinger (*University of Vechta*)

Expert in Pensions

Email: uwe.fachinger@uni-vechta.de

Walter Hanesch (*Hochschule Darmstadt – University of Applied Sciences*)

Expert in Social inclusion

Email: walter.hanesch@h-da.de

National coordination: Walter Hanesch

GREECE

Charalampos Economou (*Panteion University of Political and Social Sciences*)

Expert in Healthcare

Email: economou@panteion.gr

Menelaos Theodoroulakis (*EKKE - Greek National Centre for Social Research*)

Expert in Pensions

Email: mtheodor@pepsaee.gr

Dimitris Ziomas (*EKKE - Greek National Centre for Social Research*)

Expert in Long-term care and Social inclusion

Email: dziomas@ekke.gr

National coordination: Dimitris Ziomas

HUNGARY

Fruzsina Albert (*Hungarian Academy of Sciences & Semmelweis University*)

Expert in Healthcare and Social inclusion

Email: albert.fruzsina@gmail.com

Róbert Iván Gál (*Demographic Research Institute & TÁRKI Social Research Institute*)

Expert in Long-term care and Pensions

Email: gal@tarki.hu

National coordination: Fruzsina Albert

IRELAND

Mary Daly (*University of Oxford*)

Expert in Healthcare, Long-term care and Social inclusion

Email: mary.daly@spi.ox.ac.uk

Anthony McCashin (*Trinity College Dublin*)

Expert in Pensions

Email: amccshin@tcd.ie

National coordination: Mary Daly

ITALY

Matteo Jessoula (*University of Milan*)

Expert in Pensions

Email: matteo.jessoula@unimi.it

Marcello Natili (*University of Milan*)

Expert in Social inclusion

Email: marcello.natili@unimi.it

Emmanuele Pavolini (*Macerata University*)

Expert in Healthcare and Long-term care

Email: emmanuele.pavolini@unimc.it

Michele Raitano (*Sapienza University of Rome*)

Expert in Social inclusion

Email: michele.raitano@uniroma1.it

National coordination: Matteo Jessoula

KOSOVO

Amir Haxhikadrija (*Open Society Foundation and Independent social policy researcher*)

Expert in Healthcare, Long-term care and Social inclusion

Email: amir.haxhikadrija@gmail.com

Artan Mustafa (*University for Business and Technology*)

Expert in Pensions and Social inclusion

Email: artanmustafa2000@yahoo.com

National coordination: Amir Haxhikadrija

LATVIA

Tana Lace (*Riga Stradins University*)

Expert in Healthcare and Social inclusion

Email: tanalace@inbox.lv

Feliciana Rajevska (*Vidzeme University of Applied Sciences*)

Expert in Long-term care

Email: rajevska@latnet.lv

Olga Rajevska (*University of Latvia*)

Expert in Pensions

Email: olga.rajevaska@lu.lv

National coordination: Feliciana Rajevska

LITHUANIA

Romas Lazutka (*Vilnius University*)

Expert in Pensions and Social inclusion

Email: lazutka@ktl.mii.lt

Jekaterina Navickė (*Vilnius University*)

Expert in Social inclusion

Email: jekaterina.navicke@fsf.vu.lt

Arūnas Poviliūnas (*Vilnius University*)

Expert in Healthcare and Social inclusion

Email: arunas.poviliunas@fsf.vu.lt

Laimutė Žalimiene (*Vilnius University*)

Expert in Healthcare and Long-term care

Email: laima.zalimiene@fsf.vu.lt

National coordination: Arunas Poviliūnas

LUXEMBOURG

Michèle Baumann (*University of Luxembourg*)
Health and Long-term care
michele.baumann@uni.lu

Muriel Bouchet (*Fondation IDEA*)
Pensions
Muriel.bouchet@fondation-IDEA.lu

Marie-Lise Lair-Hillion (*Santé et Perspectives*)
Healthcare and Long-term care
marieliselair@gmail.com

Robert Urbé (*Independent social policy researcher*)
Social inclusion and Social Protection
Email: robert.urbe@pt.lu

National coordination: Robert Urbé

MALTA

Anna Borg (*University of Malta*)
Expert in Children, Labour studies and Social inclusion
Email: anna.borg@um.edu.mt

Mario Vassallo (*University of Malta*)
Expert in Healthcare, Long-term care, Pensions and Social inclusion
Email: mario.vassallo@um.edu.mt

National coordination: Mario Vassallo

MONTENEGRO

Vojin Golubovic (*Institute for Strategic Studies and Prognoses*)
Expert in Pensions
Email: vgolubovic2004@yahoo.com

Jadranka Kaludjerović (*Institute for Strategic Studies and Prognoses*)
Expert in Social inclusion
Email: mailto:jkaludjerovic@t-com.me

Milica Vukotic (*University of Donja Gorica*)
Expert in Healthcare and Long-term care
Email: milica.vukotic@udg.edu.me

National coordination: Jadranka Kaludjerović

NETHERLANDS

Karen M. Anderson (*University College Dublin*)
Expert in Long-term care and Pensions
Email: karen.anderson@ucd.ie

Katrien de Vaan (*Regioplan Policy Research*)
Expert in Healthcare
Email: katrien.de.vaan@regioplan.nl

Adriaan Oostveen (*Regioplan Policy Research*)
Expert in Social inclusion
Email: adriaan.oostveen@regioplan.nl

Bob van Waveren (*Regioplan Policy Research*)
Expert in Social inclusion
Email: bob.van.waveren@regioplan.nl

National coordination: Bob van Waveren

NORTH MACEDONIA

Dragan Gjorgjev (*Public Health Department of the Medical Faculty, Skopje*)

Expert in Healthcare and Long-term care

Email: dgjorgjev@gmail.com

Maja Gerovska Mitev (*Institute of Social Work and Social Policy, Ss. Cyril and Methodius University*)

Expert in Pensions and Social inclusion

Email: gerovska@fzf.ukim.edu.mk

National coordination: Maja Gerovska Mitev

POLAND

Agnieszka Chłoń-Domińczak (*Warsaw School of Economics*)

Expert in Pensions

Email: Agnieszka.Chlon@gmail.com

Agnieszka Sowa-Kofta (*Institute of Labour and Social Studies & Centre for Social and Economic Research*)

Expert in Healthcare and Long-term care

Email: Agnieszka.Sowa@case.com.pl

Ryszard Szarfenberg (*University of Warsaw*)

Expert in Social inclusion

Email: r.szarfenberg@uw.edu.pl

Irena Topińska (*CASE - Centre for Social and Economic Research*)

Expert in Social inclusion

Email: irena.topinska@case.com.pl

National coordination: Agnieszka Chłoń-Domińczak

PORTUGAL

Ana Cardoso (*CESIS - Centro de Estudos para a Intervenção Social*)

Expert in Long-term care and Social inclusion

Email: ana.cardoso@cesis.org

Heloísa Perista (*CESIS - Centro de Estudos para a Intervenção Social*)

Expert in Pensions and Social inclusion

Email: heloisa.perista@cesis.org

Pedro Perista (*CESIS - Centro de Estudos para a Intervenção Social*)

Expert in Healthcare, Long-term care and Social inclusion

Email: pedro.perista@cesis.org

National coordination: Pedro Perista

ROMANIA

Luana M. Pop (*University of Bucharest*)

Expert in Healthcare, Long-term care and Social inclusion

Email: luana.pop@gmail.com

Dana O. Farcasanu (*Foundation Centre for Health Policies and Services*)

Expert in Healthcare

Email: dfarcasanu@cpss.ro

Daniela Urse (Pescaru) (*University of Bucharest*)

Expert in Pensions

Email: dana.pescaru@gmail.com

National coordination: Luana Pop

SERBIA

Jurij Bajec (*University of Belgrade & Economics Institute Belgrade*)

Expert in Pensions and Social inclusion

Email: jurij.bajec@ecinstitute.org.rs

Ljiljana Stokić Pejin (*Economics Institute Belgrade*)

Expert in Healthcare, Long-term care and Social inclusion

Email: ljiljana.pejin@ecinstitute.org.rs

National coordination: Ljiljana Stokić Pejin

SLOVAKIA

Rastislav Bednárík (*Institute for Labour and Family Research*)

Expert in Long-term care and Pensions

Email: Rastislav.Bednarik@ivpr.gov.sk

Andrea M. Gecková (*P.J. Safarik University, Kosice*)

Expert in Healthcare and Long-term care

Email: andrea.geckova@upjs.sk

Daniel Gerbery (*Comenius University*)

Expert in Social inclusion

Email: daniel.gerbery@gmail.com

National coordination: Daniel Gerbery

SLOVENIA

Boris Majcen (*Institute for Economic Research*)

Expert in Pensions

Email: majcenb@ier.si

Valentina Prevotnik Rupel (*Institute for Economic Research*)

Expert in Healthcare and Long-term care

Email: rupelv@ier.si

Nada Stropnik (*Institute for Economic Research*)

Expert in Social inclusion

Email: stropnikn@ier.si

National coordination: Nada Stropnik

SPAIN

Ana Arriba Gonzáles de Durana (*University of Alcalá*)

Expert in Social inclusion

Email: ana.arriba@uah.es

Gregorio Rodríguez Cabrero (*University of Alcalá*)

Expert in Long-term care, Pensions and Social inclusion

Email: gregorio.rodriguez@uah.es

Vicente Marbán Gallego (*University of Alcalá*)

Expert in Healthcare and Long-term care

Email: vicente.marban@uah.es

Julia Montserrat Codorniu (*Centre of Social Policy Studies*)

Expert in Long-term care and Pensions

Email: jmontserratac@gmail.com

National coordination: Gregorio Rodríguez Cabrero

SWEDEN

Johan Fritzell (*Stockholm University & Karolinska Institutet*)

Expert in Healthcare and Social inclusion

Email: johan.fritzell@ki.se

Kenneth Nelson (*Stockholm University*)

Expert in Social inclusion

Email: kenneth.nelson@sofi.su.se

Joakim Palme (*Uppsala University*)

Expert in Pensions

Email: Joakim.Palme@statsvet.uu.se

Pär Schön (*Stockholm University & Karolinska Institutet*)

Expert in Long-term care

Email: par.schon@ki.se

National coordination: Johan Fritzell

TURKEY

Fikret Adaman (*Bogazici University*)

Expert in Healthcare and Social inclusion

Email: adaman@boun.edu.tr

Dilek Aslan (*Hacettepe University*)

Expert in Long-term care

Email: diaslan@hacettepe.edu.tr

Burcay Erus (*Bogazici University*)

Expert in Healthcare and Social inclusion

Email: burcay.erus@boun.edu.tr

Serdar Sayan (*TOBB University of Economics and Technology*)

Expert in Pensions

Email: serdar.sayan@etu.edu.tr

National coordination: Fikret Adaman

UNITED KINGDOM

Fran Bennett (*University of Oxford*)

Expert in Social inclusion

Email: fran.bennett@dsl.pipex.com; fran.bennett@spi.ox.ac.uk

Karen Bloor (*University of York*)

Expert in Healthcare

Email: karen.bloor@york.ac.uk

Jonathan Bradshaw (*University of York*)

Expert in Pensions and Social inclusion

Email: jonathan.bradshaw@york.ac.uk

Caroline Glendinning (*University of York*)

Expert in Long-term care

Email: caroline.glendinning@york.ac.uk

Rebecca Tunstall (*University of York*)

Expert in Housing policy

Email: becky.tunstall@york.ac.uk

National coordination: Jonathan Bradshaw

Getting in touch with the EU

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