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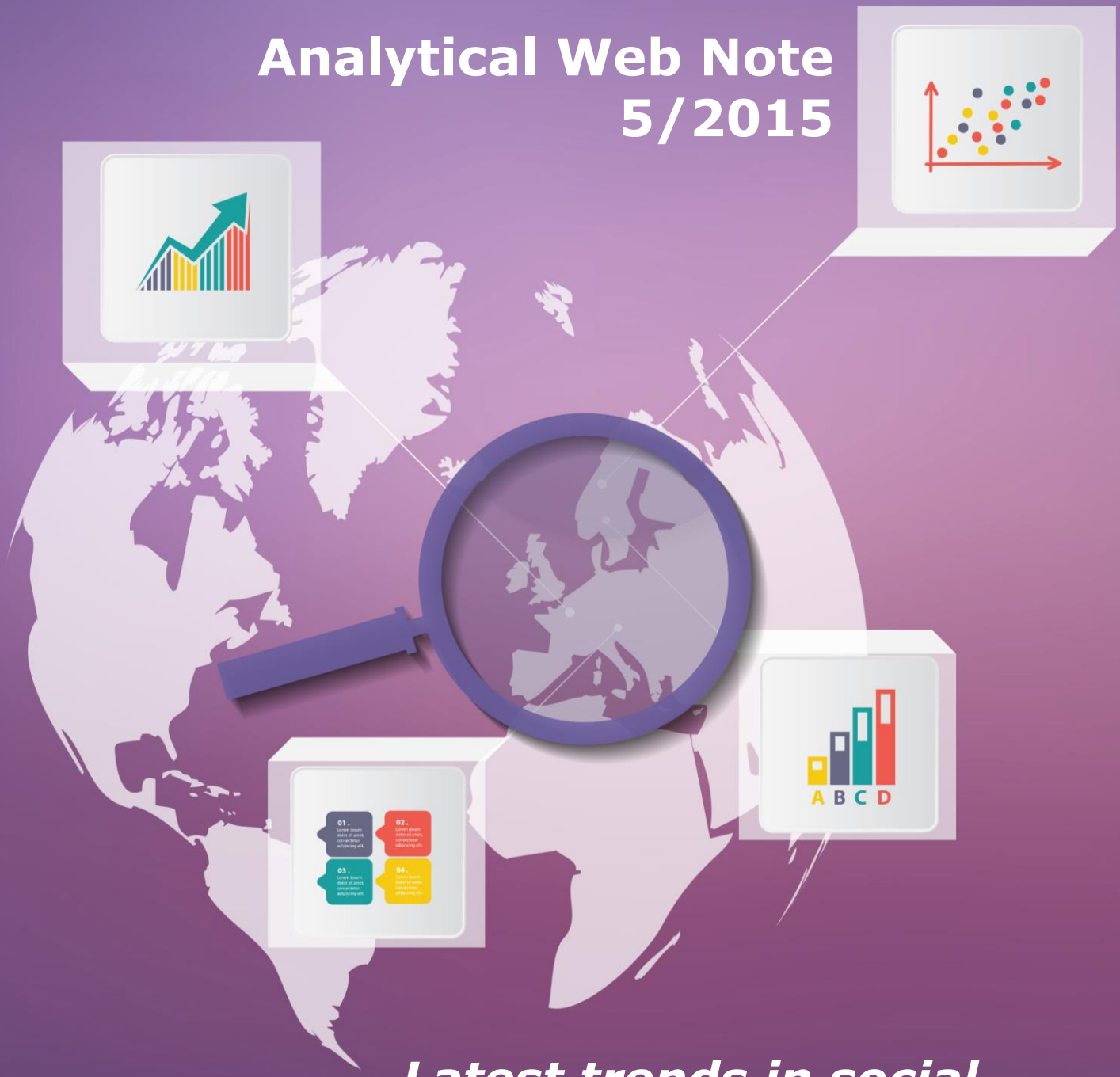

Latest trends in social protection expenditure

Employment, Social Affairs and Inclusion

This note provides an overview of the latest trends in social protection expenditure. It was prepared by O. Bontout and I. Maquet from the Social Analysis Unit in DG EMPL with the reviewing support of N. Gibert-Morin, R. Maly and A. Xavier. Any views expressed in this note are those of the authors and do not necessarily correspond to those of the European Commission.

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Key findings

This note analyses the developments of social protection expenditure until 2014. It analyses the main drivers of these evolutions, in relation to the economic cycle and sheds light on the impact of policy changes, including fiscal consolidation measures, on income distribution.

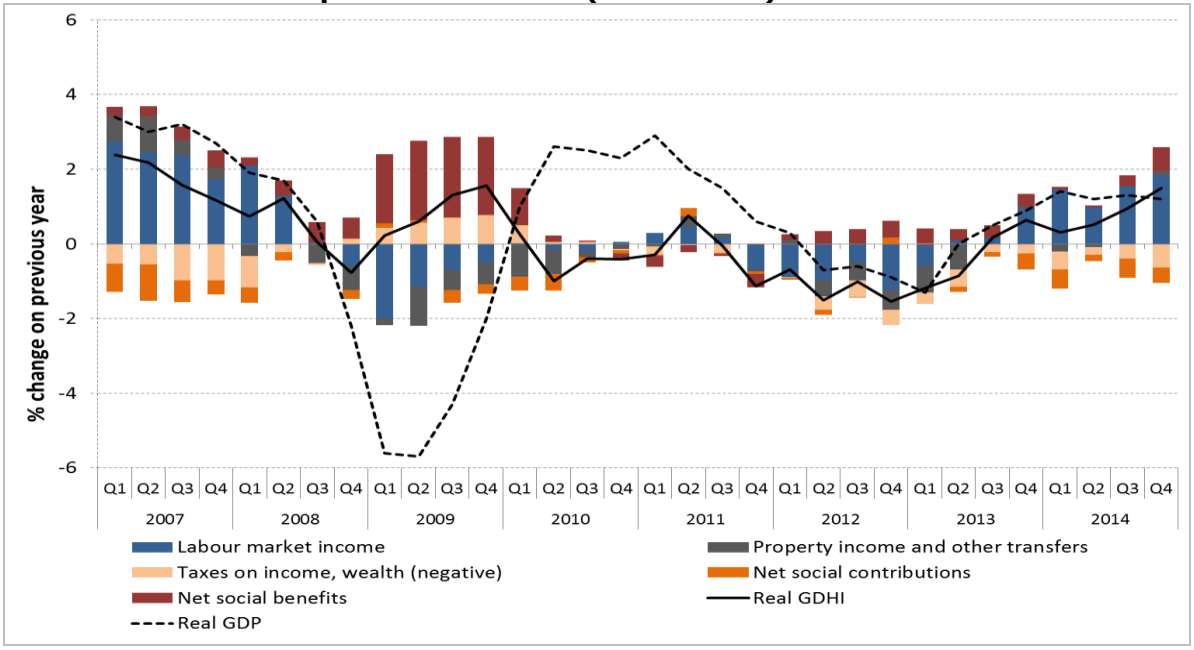
- While social protection expenditure played a major role in stabilising incomes in 2009, the 2012 decline in spending, in real terms, was pro-cyclical and the 2013 slow growth provided very weak stabilisation.
- In 2014, social protection expenditure started to grow again at a pace closer to their long-term trend.
- An assessment of the impact of changes in the tax benefit system on the household income distribution over the period 2008-14 is presented for 10 Member States, including some particularly affected during the crisis.
- In some Member States, the measures adopted since 2008 had a strong negative impact on household incomes, even if, in general the better-off lost a higher proportion of their income than the poor.
- In most of the Member States assessed, the measures adopted in 2013-14 had an overall positive impact on incomes, and in most cases were more beneficial to lower incomes deciles.
- The overall distributional impact of measures over the period 2008-2014 is not related to the size of their impact on household incomes: it can have been more beneficial to lower or higher income deciles in countries that have experienced similar average impact on household incomes. This highlights the importance of the design of measures as regards their distributional impact.

1 How did social expenditure fare in the crisis and in recent quarters?

1.1 Social expenditure were the main stabilising channel of household incomes in the early phase of the crisis

At the onset of the crisis (2007-09), social benefits were the main contributing factor to the stabilisation of household incomes in the EU, but their effect weakened over time as they were not designed for a prolonged recession[1] and in some countries were affected by fiscal consolidation measures (see below). In 2014, work incomes started to increase again, reflecting the improvement of labour market conditions. Social benefits[2] continued to increase slightly in comparison to 2013, probably due to indexation mechanisms anchored on 2013 inflation rates, which were higher than in 2014 (Chart 1).

Chart 1. GHDI developments in the EU (2000-2014)



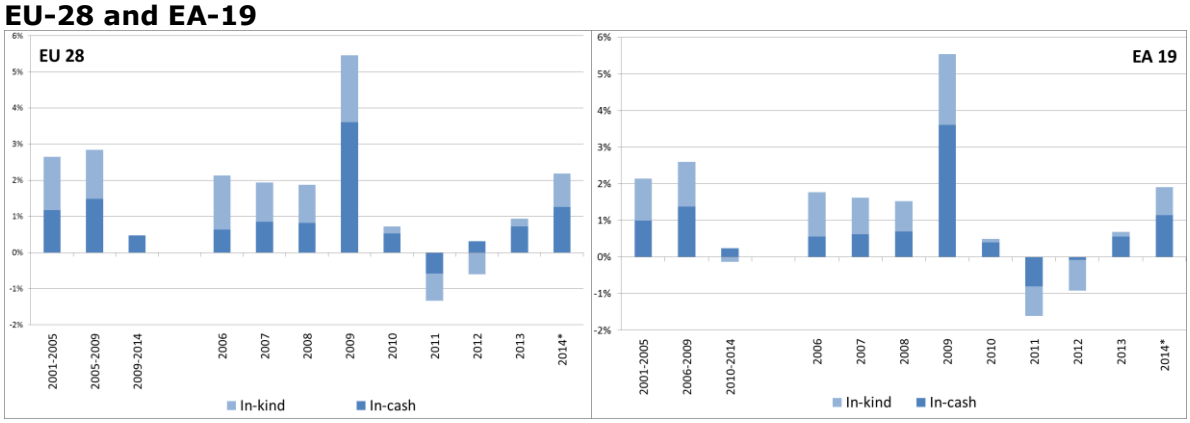
Source: ECB and Eurostat. Note: annual percentage change and percentage point contributions. Labour income includes compensation of employees and gross operating surplus and mixed income (compensation of self-employed).

In 2014, while the economic environment improved, expenditure on both cash and in-kind benefits increased in the EU and the Euro area at a quicker pace than in 2013 (Chart 2a). Most Member States registered similar increases. Note though that the increase in expenditure on in-kind benefits in 2014 only partly compensates for the declines observed between 2011 and 2012. Moreover, expenditure on in-kind benefits continued to decline in Cyprus, Ireland, Slovenia, Croatia, Spain, Greece and Finland. Expenditure on cash benefits actually recorded real increases in all Member States with the exception of Ireland (Chart 2b).

[1] The stabilising role of social benefits is analysed in detail in the 2013 review Employment and Social Developments in Europe.

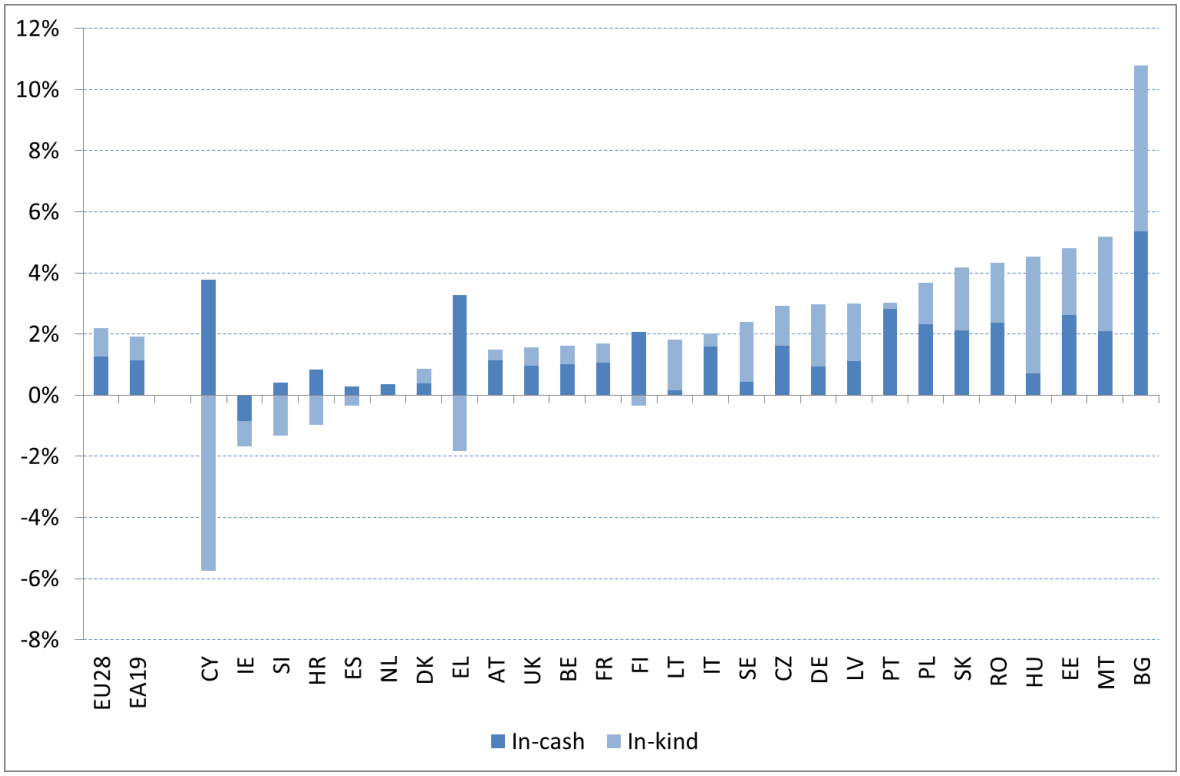
[2] Social protection expenditure generally help to stabilise the economy in bad economic times, since social benefits partly compensate for the decline in households' market income. Unemployment benefits typically have a stabilising function, as do means-tested benefits of various sorts (typically social exclusion, family or housing). Health and pensions expenditure play a role too, but generally to a lesser extent (since they generally increase or remain constant, while market incomes decline).

Chart 2a. Breakdown of the annual change in real public social expenditure between the contributions from in-cash and in-kind benefits (2001–14) in the EU-28 and EA-19



Source: Eurostat (NA and DG EMPL calculations). Note: the values for 2014 are an estimate based on national accounts. Note: When no data are available in the National Accounts (annual), the data were either based on National Accounts (quarterly) or the AMECO database (in the latter case by usually applying calculated growth rates to the data available from the annual National Accounts).

Chart 2b: Breakdown of the annual change in real public social expenditure between the contributions from in-cash and in-kind benefits (2014) in the EU Member States



Source: Eurostat (NA and DG EMPL calculations). Note: the values for 2014 are an estimate based on national accounts. Note: When no data are available in the National Accounts (annual), the data were either based on National Accounts (quarterly) or the AMECO database (in the latter case by usually applying calculated growth rates to the data available from the annual National Accounts).

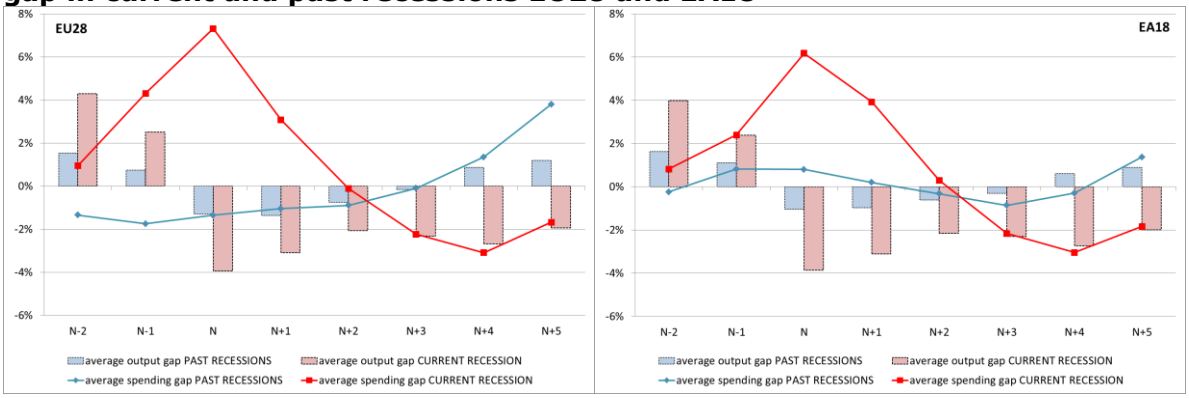
1.2 Did social expenditure follow past trends in this prolonged crisis?

In 2014, social protection expenditure started to grow again at a pace reflecting economic conditions, after two years of very slow growth

In this section, the evolution of social expenditure (deviation from trend) is analysed in relation to the economic cycle and compared to developments in past recessions (Chart 3).[3] Based on past experience, social expenditure is expected to grow above the trend when the output gap (i.e. the gap between potential and actual GDP) declines and particularly when it is negative, and to adjust downwards and return to the trend when the output gap recovers.

Compared to past recessions, the extent of the recession in 2009 in most countries, year N in chart 3) was much deeper in this crisis, resulting in a larger output gap and leading to a strong increase in public social expenditure well above the trend. In past recessions, the output gap was generally smaller and the deviation from the trend of social expenditure was also smaller.[4] During the following two years (2010 in most countries, year N+1 in chart 3, and 2011, year N+2 in chart 3,), the output gap improved and social expenditure returned to their trend levels, as one would expect.

Chart 3: Deviation from the trend of public social expenditure and GDP output gap in current and past recessions EU28 and EA18



Source : Eurostat, National Accounts, DG EMPL calculations. Notes: 2014 data are estimated based on quarterly data from the first three quarters. In the current recession, N is year 2009. Estimates of the deviation from the trend in social protection expenditures are based on a standard Hodrick-Prescott filter.
Reading note : in the year of the recession, in the current crisis, social expenditure was about 5% above their trend in Europe, while the GDP was about 4% below its potential (output gap of -4%). Averages are unweighted country averages (since countries do not always experience a recession the same year).

However, in 2012 and 2013 (in most countries), social expenditure grew well below their trend and went on to adjusting downwards despite a worsening of the output gap, contrary to what happened in past instances of declining and negative output gaps. This represents a weakening of the economic automatic stabilisation function of social protection systems, which were actually pro-cyclical in 2012.

This reflected the challenges posed to social protection systems to sustain a prolonged recession, but also and importantly the exceptional scale of the fiscal consolidation needed during this crisis, which translated into a significant downward adjustment in

[3] For a detailed description of the method, see 2013 review of Employment and Social Developments in Europe p. 328.
[4] The increase in social expenditure in the first year of this crisis was more sensitive to the economic cycle, probably reflecting greater increases in unemployment levels, as well as the play of indexation mechanisms in a context of a declining inflation.

the cyclical component of social protection expenditure, as well as into a potential permanent adjustment of the trend of social protection expenditure.

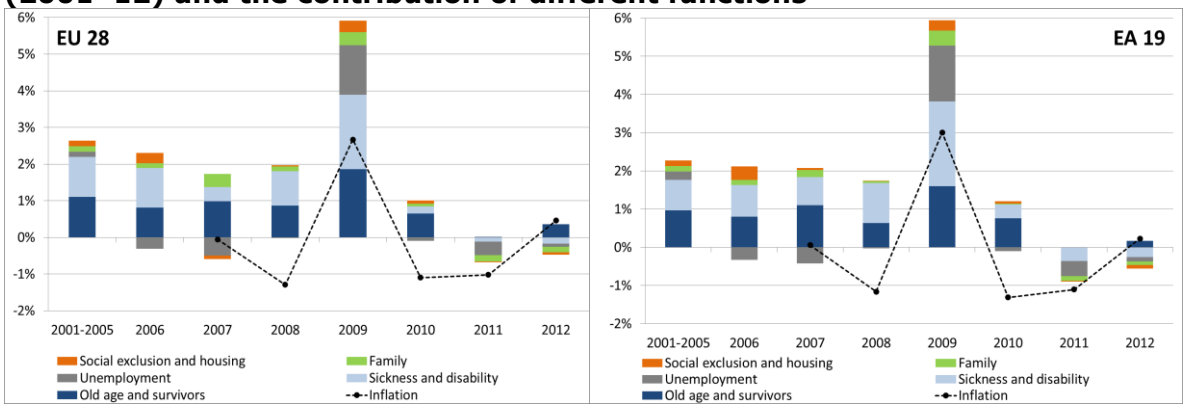
In 2014 (i.e. 5 years after the first recession year in most countries), the output gap improved (narrowed) and social protection expenditure started to grow again at a pace closer to its long-term trend. This evolution may have a pro-cyclical impact even if part of the growth in expenditure can be seen as an adjustment following the downward developments of the previous two years.

1.3 What expenditure grew most since the beginning of this prolonged crisis?

In 2012[5], overall social protection expenditure declined slightly in real terms, mainly driven by the reduction in expenditure on sickness and disability and family benefits, while old age expenditure started to grow again (in real terms). As said, reforms implemented in the context of fiscal consolidation can explain part of the reduction in expenditure, while indexation mechanisms based on a declining inflation mostly contributed positively in 2012 (due to the lag in indexation). The increase in old age expenditure is mainly driven by demographic factors (more people retiring with higher entitlements), but it remains below its long-term trend.

In 2012, unemployment expenditure continued to decrease slightly, despite the increase in unemployment. This decline followed on from the strong decrease observed in 2011. It contrasts with the strong growth in unemployment expenditure recorded in 2008 and 2009, which reflected increases in the number of unemployed persons (Chart 4), while the contribution of pensions and health expenditure reflected the automatic impact of indexation mechanisms in a context of inflation slow-down.

Chart 4 — Annual real growth of social expenditure in the EU-28 and EA-19 (2001–12) and the contribution of different functions

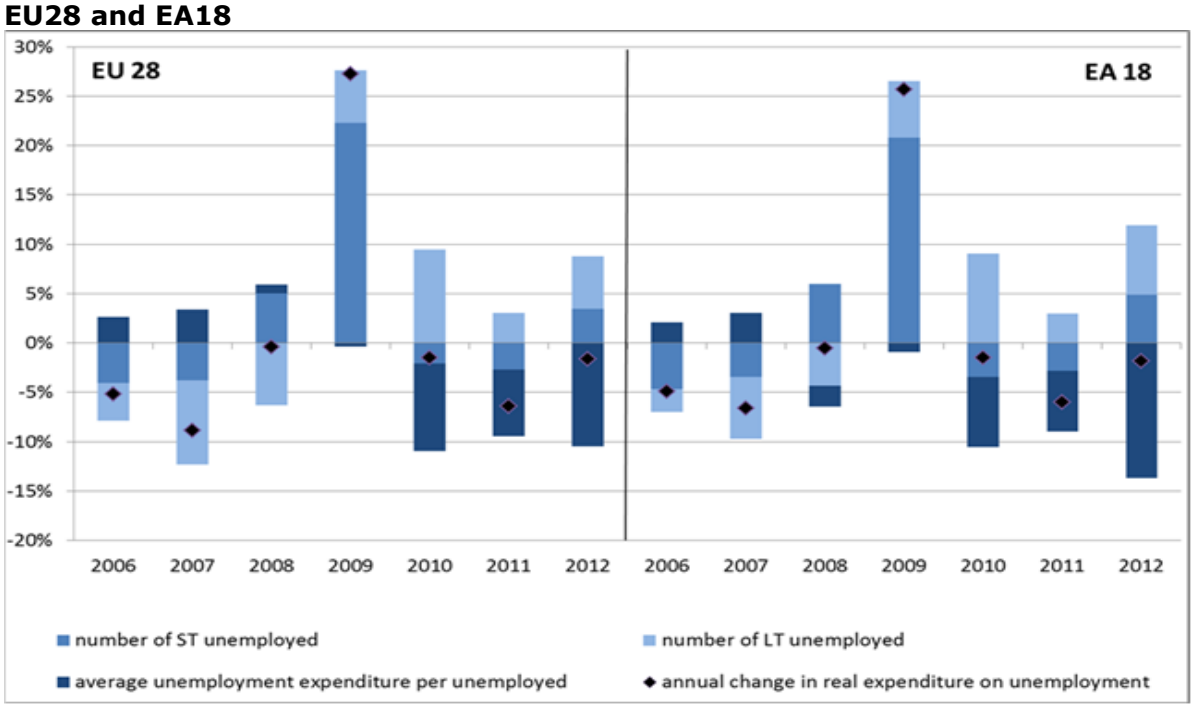


Source: Eurostat (ESSPROS) and DG EMPL calculations. Inflation reflects the year on year change in HICP growth and is often used as a basis for the indexation of benefits (esp. pensions, family). When inflation is constant it has no impact, when inflation is declining it contributes positively, when inflation increases it contributes negatively. Note: For the EU-28, 2001–05 actually refers to the EU-25 since data for all of theEU-28 were not available; 2001–05 refers to the average annual growth rate.

[5] Detailed information on the evolution of social expenditure by function is only available until 2012 through ESSPROS which covers a wider scope than only public expenditure.

Chart 5 illustrates that the cutback in unemployment expenditure observed since 2010 is mainly due to a decline in average unemployment expenditure per unemployed of nearly 10% a year. This decline was especially strong in 2012 when the number of unemployed, including the newly unemployed was increasing. If unemployment benefit rules were more responsive to the economic cycle (for instance by increasing duration in a downturn and reducing it when the labour market picks up again), the stabilisation function of unemployment expenditure would be higher.

Chart 5 - Decomposition of unemployment expenditure trends (2006-2012) in EU28 and EA18



Source : Eurostat, ESSPROS, LFS, DG EMPL calculations.

2 Distributional impact of tax-benefit changes since 2008

This section illustrates the impact of changes in the tax benefit system on the household income distribution over the period 2008-14 in 10 Member States, including some where household incomes were particularly affected during the crisis, as reflected by the EUROMOD micro-simulation model.[6]

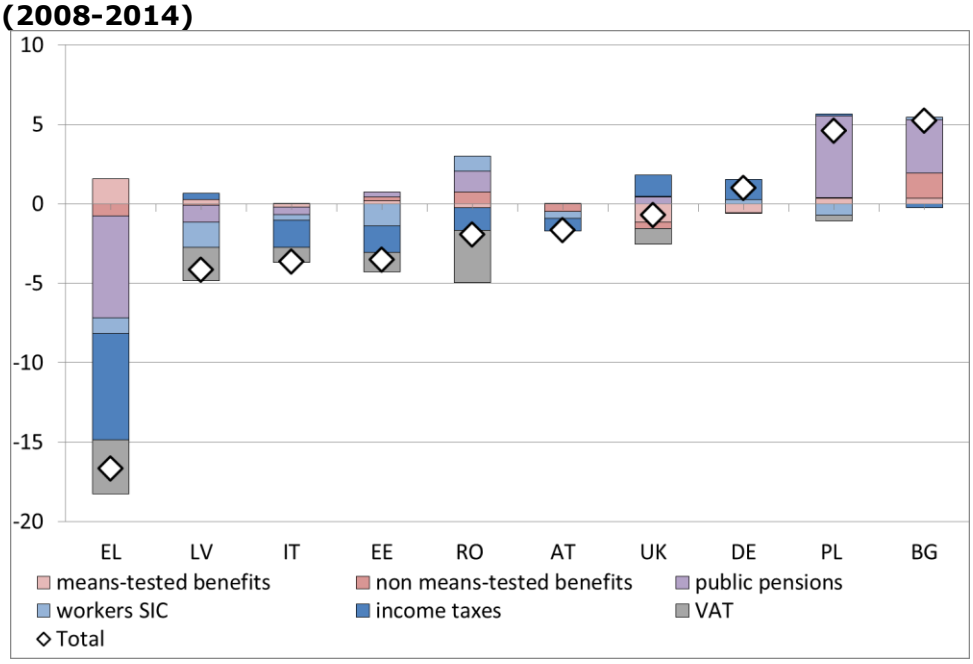
This assessment takes into account changes in taxes (direct income taxes and social contributions, as well as VAT changes) and in cash benefits (pensions and other benefits). It does not take account of other measures that may have had an indirect impact on the distribution of households' income, such as those affecting employers or cuts in public services.[7] It should be noted that to assess the impact of overall changes over the period, a counterfactual needs to be chosen, specifically on the implicit indexation of benefit levels and calculation rules over the period. Price indexation (CPI counterfactual) is used in the results presented below.

[6] De Agostini P., Paulus A. and Tasseva I., (2015), "The effect of tax-benefit changes on the income distribution in 2008-14", Social situation monitor, Research note 02/2014.
[7] Furthermore, some measures may have already expired during the period considered, while some countries may have planned further adjustments after mid-2014.

The size of overall impact on household incomes differs across Member States…

The impact of measures implemented after the 2008 economic downturn and up to mid-2014 on household incomes was particularly strong and negative in Greece, less pronounced in Latvia, Italy, Estonia and Romania, while it was not very significant in Austria, the UK and Germany and was significantly positive in Poland and Bulgaria. The composition of measures taken into account varies significantly across Member States (Chart 6), with large contributions from cuts in pensions (in particular in Greece), increases in VAT (in particular in Romania and Greece) or income taxes (in particular in Greece and to a lesser extent in Italy, Estonia and Romania) or social contributions (in particular in Estonia and Latvia) and to a lesser extent reduced benefits.

Chart 6: Aggregate effects of policy changes on household disposable income (2008-2014)

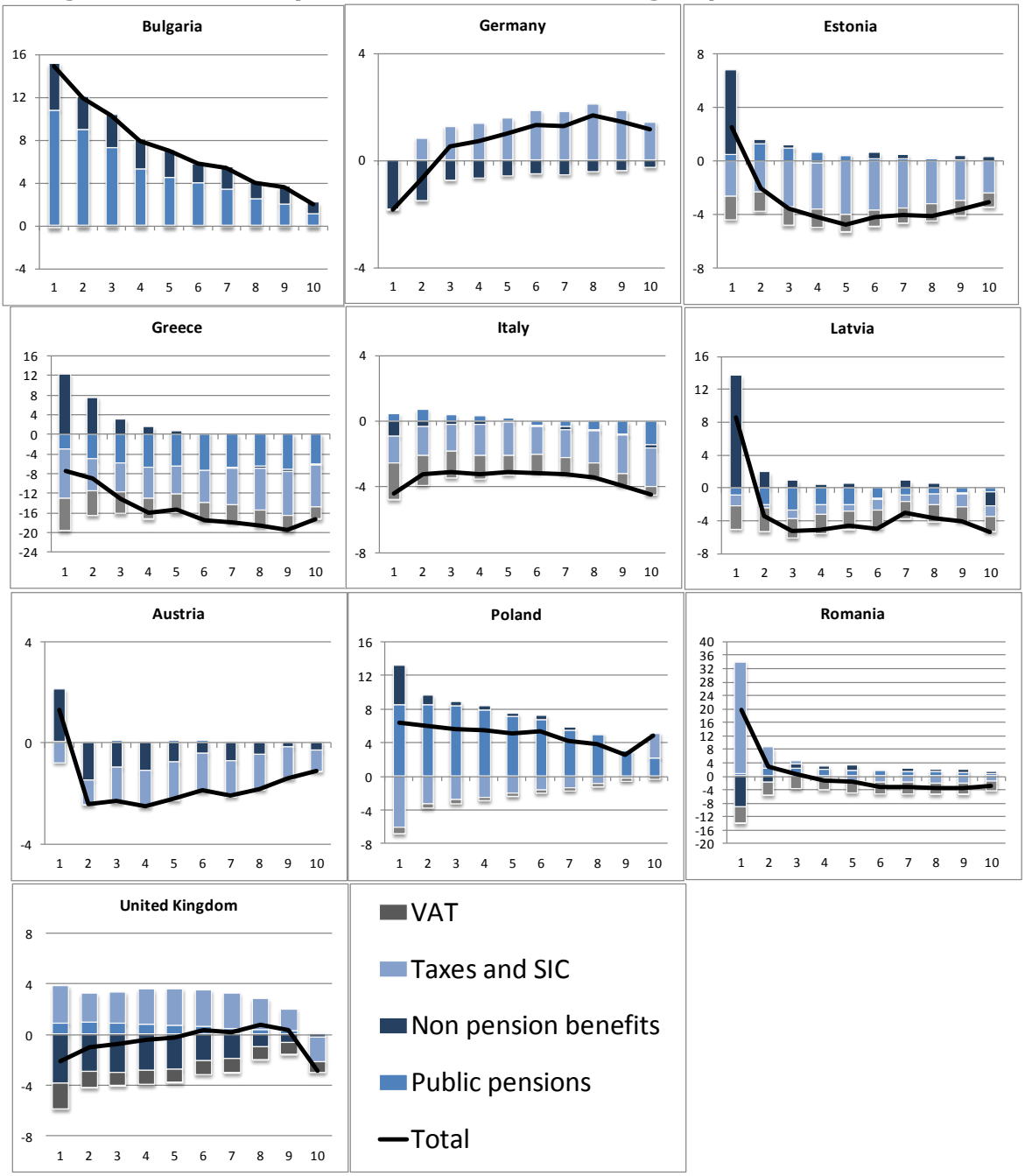


Note: counterfactual on CPI (prices). Source: De Agostini and al. (2015).

…and can have different impacts on the distribution of household incomes…

In Austria, Bulgaria, Estonia, Greece, Latvia and Romania, the better-off lost a higher proportion of their income than the poor, as a result of the measures modelled over 2008-2014 (Chart 7). In Italy and the UK, the burden of fiscal consolidation fell slightly more heavily on the poor and/or the rich than it did on those on middle incomes, producing an inverted U-shaped pattern. In Poland, the impact appears overall nearly proportional (a proportional income drop can actually affect the living standards of those already in lower income brackets more severely). At the other extreme, in Germany, measures over the period 2008-2014 period have had a stronger impact on lower incomes than on the better-off.

Chart 7 – Percentage change in household disposable income due to policy changes 2008-2014, by household income decile group



Notes: Deciles are based on equivalised household disposable income in 2014 with 2008 policies in place, indexed by CPI and are constructed using the modified OECD equivalence scale to adjust incomes for household size. The charts are drawn to different scales, but the interval between gridlines on each of them is the same. Source: De Agostini and al. (2015).

While in Austria, Bulgaria, Estonia, Latvia and Romania the lower income deciles benefited more from the measures, this reflects different types of effects, such as changes in the design of non means-tested benefits, of public pensions and of taxes (Chart 7). The opposite pattern observed in Germany mainly reflects changes introduced in taxes and non-pension benefits. Changes in the design of non-pension benefits were more beneficial to lower incomes in Austria, Greece, Estonia, Italy and Latvia, while they were more beneficial to higher incomes in Germany, Romania and

the UK. The design of changes to public pensions was more beneficial to lower incomes in Bulgaria, Italy and Poland and more beneficial to higher incomes in Latvia (reflecting changes in the indexation of benefits). In Greece, changes to public pensions weighed less heavily on low incomes than on higher incomes.

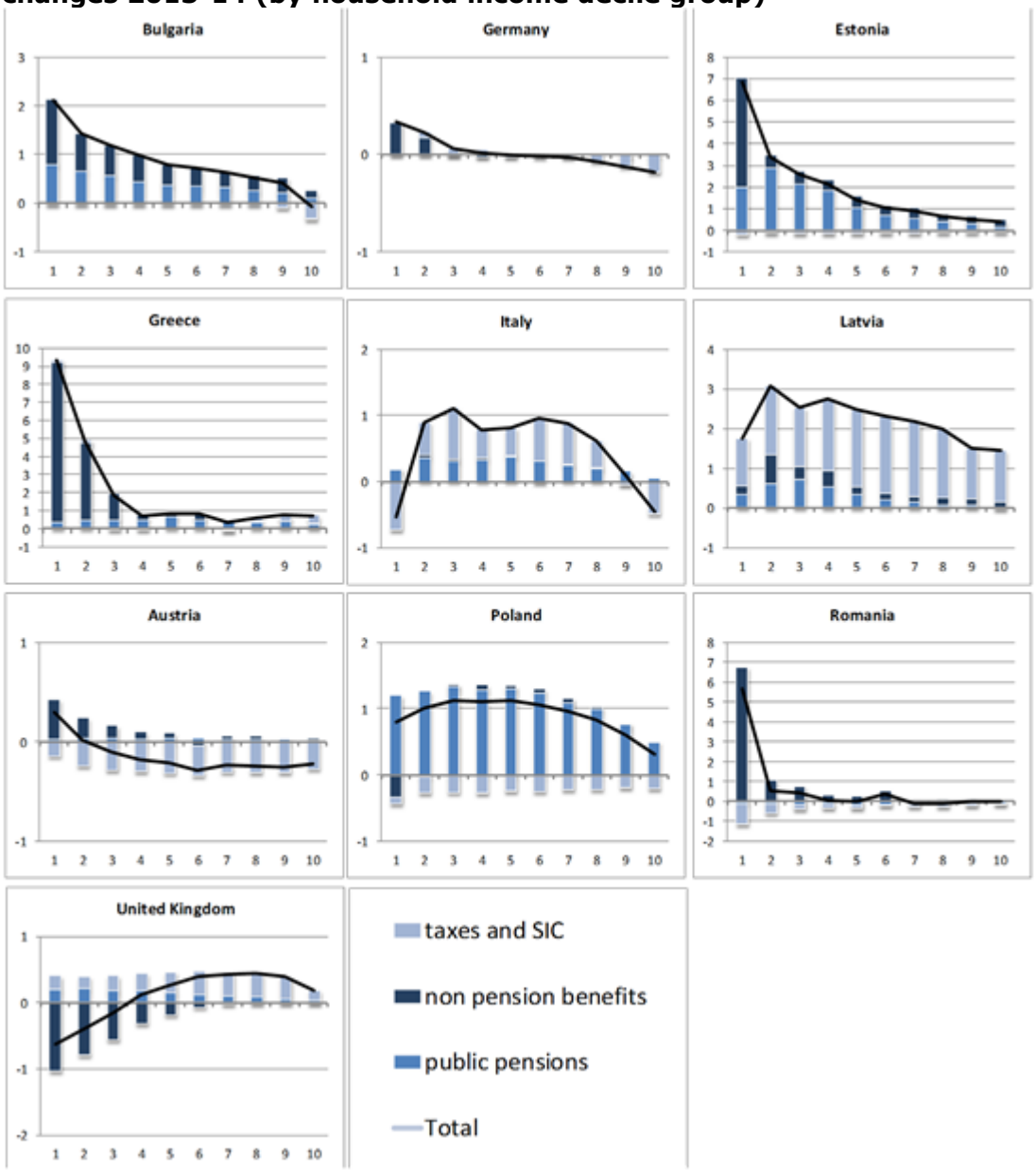
Changes in social insurance contributions (SIC) and income taxes were more beneficial to lower incomes in the UK and Romania, while they were merely proportional in Austria, Estonia, Greece and Italy and regressive in Germany and Poland.

Increases in VAT were proportional or were more beneficial to higher incomes. Changes in the main VAT rate were null in Austria, Bulgaria and Germany and ranged from 1 ppt in Poland to 5 ppts in Romania. The differences across countries are linked to differences in the structure of VAT, consumption patterns and savings rates (which generally increases along the income distribution), as well as differences in increases in the standard rate of VAT. In some countries (such as Italy), the extent of the effect on household incomes is similar to the total of other tax and benefit measures.

Policy changes introduced in 2013-2014 were progressive or neutral in nine out of ten countries, but had a negative impact on low income households in the UK

These results also help to shed some light on changes introduced between mid-2013 and mid-2014, which were more beneficial to lower incomes deciles in most cases (in proportional terms in the most recent year). In Bulgaria, Estonia, Greece and Romania and to a lesser extent Latvia, the effect of additional policy changes in 2013-2014 was to increase incomes, across all or most of the income distribution and in particular for the lower deciles. In Austria and Germany, while the impact on lower deciles was positive, it was negative for higher incomes deciles. In Italy and Poland, while on average the impact has been positive, it was lower for the first and 10th deciles. In the UK households in the bottom of the distribution have seen reductions in their income due to policy changes in 2013-2014.

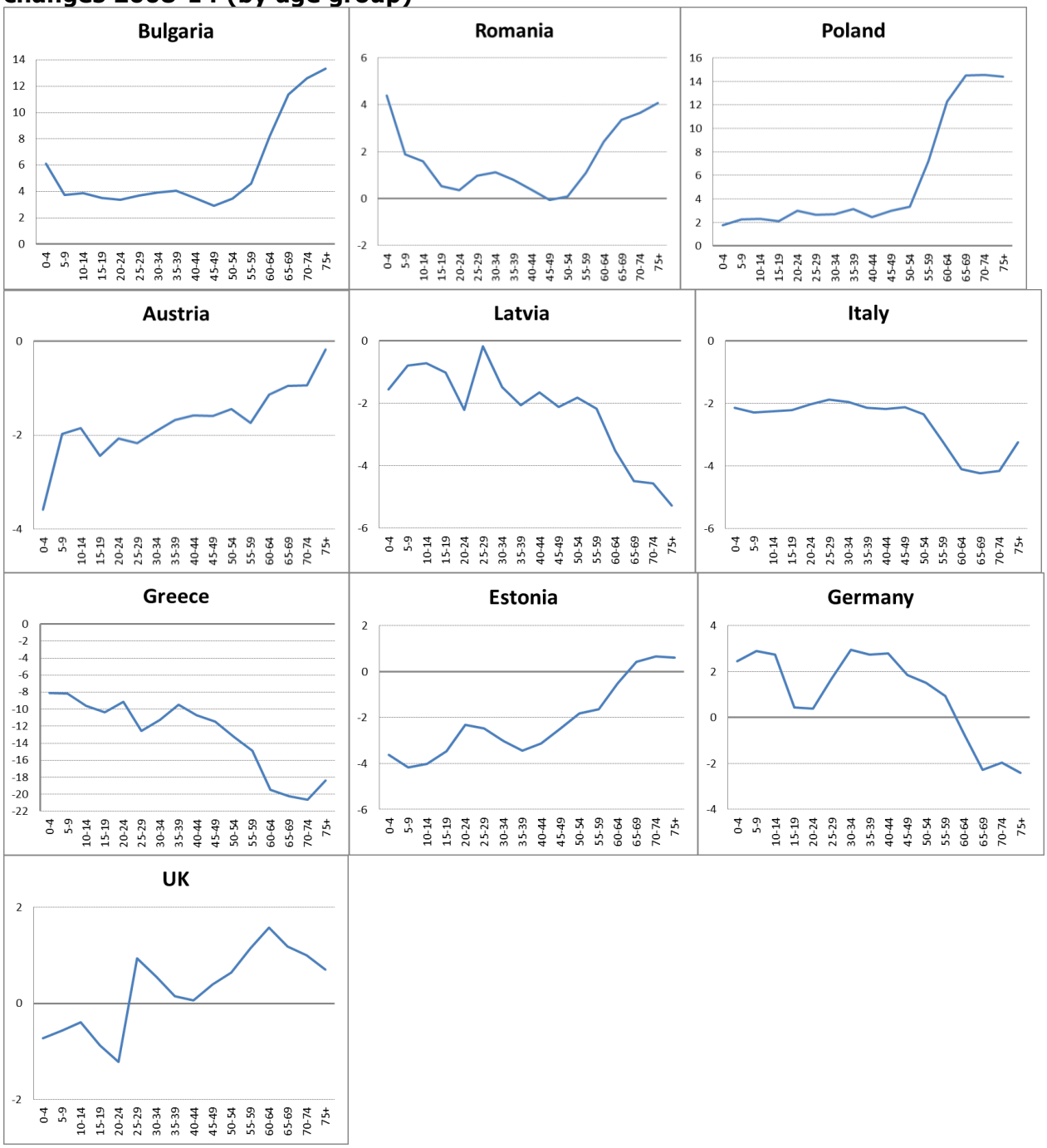
Chart 8 - Percentage change in household disposable income due to policy changes 2013-14 (by household income decile group)



Notes: counterfactual on CPI (prices), the charts are drawn to different scales, but the interval between gridlines on each of them is the same. Source: De Agostini and al. (2015).

Furthermore, the burden of the impact of measures can also be shared differently across different types of households and in particular affecting differently children (aged less than 19) and older people (more than 65). Households with children were more affected in Estonia, Austria and the UK less so in Germany, while households with older people have been more affected in Italy and Greece or on the contrary have benefited more than others from changes in tax-policy systems in Bulgaria and Poland. This partly reflects changes in tax and benefits, particularly for children or elderly people, such as changes in child tax credits or pensions (but also the composition of households across the income distributions).

Chart 9 - Percentage change in household disposable income due to policy changes 2008-14 (by age group)

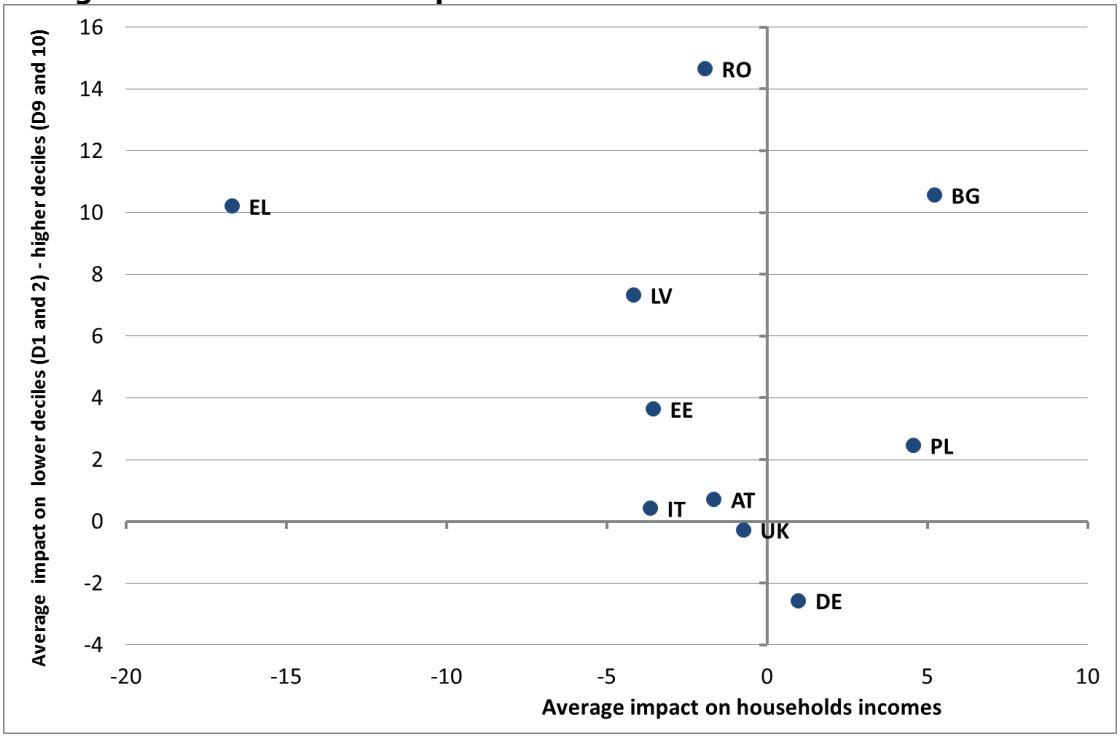


Note: counterfactual on CPI (prices). Source: De Agostini and al. (2015).

Overall, it appears that the distributional impact of measures over the period 2008-2014 period is not related to the average size of the impact on household incomes. In other words, the overall impact can be more beneficial to lower or higher income deciles in countries that have experienced similar average impact on household incomes. This in turn highlights the central importance of the design of measures as regards their distributional impact. As reflected in Chart 10, in most countries experienced lower income deciles benefited more than higher income deciles from measures implemented over the period 2008-14. However, there does not appear to be any link between the overall size of the adjustment and their distributional impact,

with for instance countries with large average negative (or positive) impact protecting (or benefiting) relatively more the lower income deciles, or countries with low average impact but affecting more lower income deciles.

Chart 10 - Aggregate effects on household disposable income of policy changes vs. distributional impact 2008-14



Note: counterfactual on CPI (prices). The horizontal axis reports the average impact of measures on households' incomes (including VAT) and the vertical axis the difference between the average impact on the first two lower income deciles and the two higher income deciles. A value of zero on the vertical axis corresponds to the same proportional changes in the lower and higher ends of the income distribution. Source: De Agostini and al (2015).

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