

CHAPTER 1

Convergence and divergence in the E(M)U and the role of employment and social policies

INTRODUCTION⁽³⁴⁾

One of the fundamental objectives of the EU is to improve the lives of its citizens by promoting convergence. This chapter analyses the extent to which employment and social performance converged in the EU and within the Euro area in the period leading up to the economic crisis of 2008 and diverged after it; and whether this divergence has been reversed since the beginning of the recovery. It also discusses how employment and social policies can foster convergence towards better employment and social outcomes in the EU and the euro area ⁽³⁵⁾.

This chapter looks at convergence and divergence in key socio-economic outcomes such as GDP per head, incomes and earnings inequality, poverty, wages, competitiveness, employment and unemployment rates, and also more specifically the incomes of working-age households. It then considers the economic adjustment to shocks within the Euro area and reviews the employment and social policies that can help to strengthen convergence of socio-economic outcomes, specifically unemployment benefits, active labour market policies, and minimum incomes. The potential impact of closer policy convergence on social

and employment outcomes in the EU and more specifically in the Euro area is also discussed.

1. CONVERGENCE AND DIVERGENCE OF SOCIO ECONOMIC OUTCOMES IN EUROPE

The convergence of economic and social performance that had been under way across the EU over the previous two decades came to a halt with the crisis in 2008, although this has recently begun to stabilise and indeed to reverse. ⁽³⁶⁾ Key dimensions to be considered in this respect are essential drivers of GDP and inequalities, namely wages (and competitiveness) and employment and unemployment rates, as well as income developments among the working age population, which has been most severely affected by the crisis.

1.1. Convergence and divergence in GDP

GDP per head had been growing steadily in the decade before the crisis, but the crisis started a period of stagnation in most Member States (see Main Employment and Social Developments chapter). The economic recovery enabled average GDP per head to return to pre-crisis levels in the EU28 by 2015. However, this has not yet been achieved in the Euro area and there are differences across Member States.

⁽³⁴⁾ This chapter was written by Olivier Bontout, Alessia Fulvimari, Lina Salanauskaitė and Maria Vaalavuo, with contributions from Zeldia Azzara and Matteo Duiella.

⁽³⁵⁾ For earlier discussion on convergence and divergence in E(M)U, see European Commission (2015) and for example Caminada et al. (2010) on the convergence in social protection spending, replacement rates and poverty indicators between the mid-1980s and early 2000s.

⁽³⁶⁾ Convergence analysis can take different forms see Box 1.1.

Box 1.1: Measuring convergence

There is a distinction to be made between nominal and real convergence. Entry into the euro is conditional on fulfilling the Maastricht criteria, which can be seen as nominal convergence (convergence in inflation, interest rates, exchange rate variability and fiscal variables). The euro is nevertheless intended to support real convergence, defined in terms of GDP per head, by fostering economic integration (see European Commission (2008c)) and the focus in this chapter is thus on real convergence and structural convergence of policies, but not on nominal convergence (for a discussion of the different types of convergence, see for instance Buti, M. and A. Turrini (2015)).

Convergence analysis can take different forms: convergence in levels (Beta-convergence) or in variability (Sigma-convergence). In the current context, convergence in variability refers to a reduction of disparities over time between countries in terms of indicators such as level of income, and usually measured in terms of the standard deviation or coefficient of variation (the ratio of the standard deviation to the mean). Convergence in levels refers to a situation such as where incomes in poorer countries grow faster than those in richer ones, which is usually measured in terms of changes in incomes in poor countries over time against their initial income levels. The two concepts of convergence are closely related with Beta-convergence being necessary but not sufficient in order to achieve Sigma-convergence ⁽¹⁾ ⁽²⁾. In this chapter we use mostly the coefficient of variation as a measure of convergence.

⁽¹⁾ See, for example, Young, Higgins and Levy (2008) and Monfort (2008).

⁽²⁾ Other indices exist (for instance the Gini coefficient, the Atkinson index, the Theil index and the Mean Logarithmic Deviation).

GDP per capita divergence reflects adverse developments in some Member States

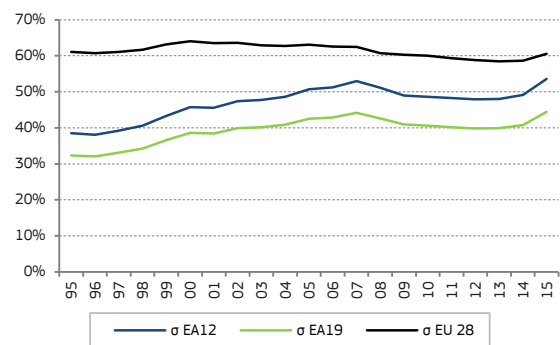
The dispersion of GDP per head since 1995 has been fairly stable, with some convergence within the EU28, as the result of the catching-up process, and some slightly divergent trends in EA19 (Chart 1.1). This reflected a pre-crisis decline in dispersion between main geographical zones (see chart 1 and description in annex), which came to a halt when the 2008 crisis hit and was reversed in relative terms. Member States that had joined in the 2000s caught up to some extent (see Chart 1.2 and ESDE 2014),⁽³⁷⁾ while GDP per head of the Nordic Member States outside the Euro area remained broadly stable (also reflecting potential changes in exchange rates against the Euro).

In the Euro area, changes in GDP per head have been more varied, with Member States in the south and east losing ground mainly from the mid-2000s and resuming growth in 2014-15. Conversely, for those in the centre levels of GDP per head remained broadly stable in comparison with the EU28. All in all, while the gradual catching-up process appeared consistent with previous decades ⁽³⁸⁾, since the mid-2000s and the crisis in 2008-09, convergence patterns in the Euro area have come to a halt.

⁽³⁷⁾ See, also ECB (2015).

⁽³⁸⁾ See, for instance, Barro and Sala-i-Martin (1991) or Sala-i-Martin (1996).

Chart 1.1: Overall dispersion in GDP per capita in Europe (2003-2013)

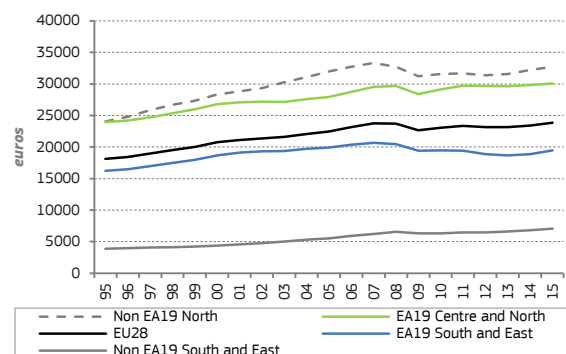


Note: MT missing values 1995-1999 kept constant for the calculation of averages.

Source: Eurostat

[Click here to download chart.](#)

Chart 1.2: GDP per capita by Zones in Europe (2003-2013)



Note: MT missing values 1995-1999 kept constant for the calculation of weighted averages.

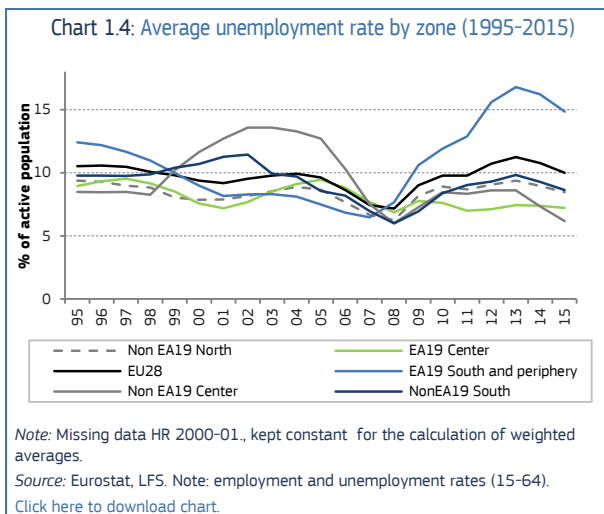
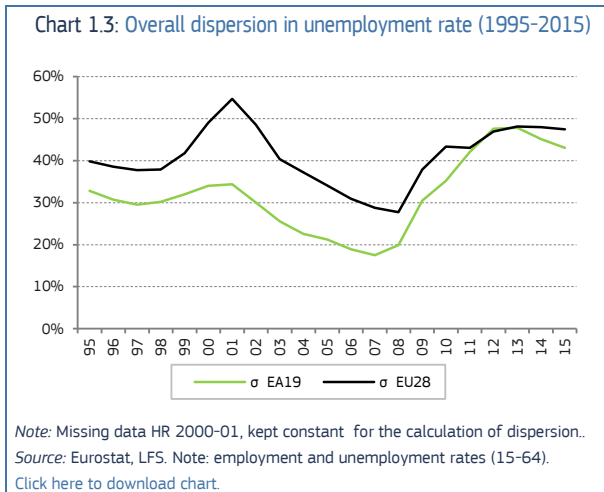
Source: Eurostat

[Click here to download chart.](#)

1.2. Convergence and divergence in employment and unemployment

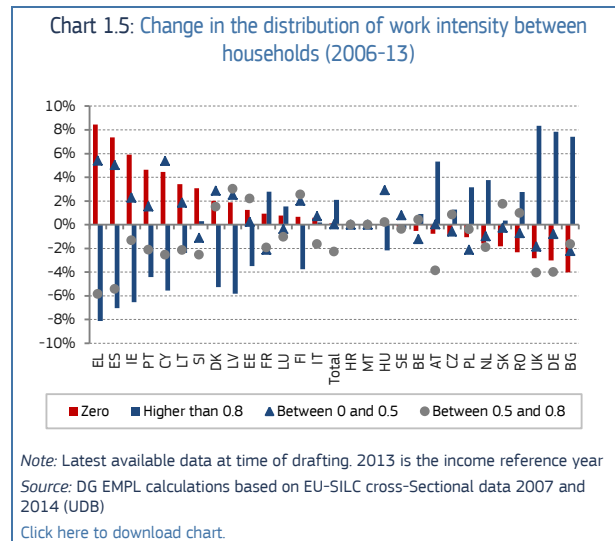
The decade before the onset of the crisis was marked by some EU-wide convergence in both employment

and unemployment rates ⁽³⁹⁾. However, underlying this convergence was an unsustainable combination of diverging unit labour costs, low productivity growth (see section 1.4), and declining real interest rates (see section 1.5). From 2008-09, employment and unemployment rates diverged again, mainly due to adverse developments in the Euro area. This reversal stopped in 2013 and in 2014-15 rates converged again. Trends in unemployment rates showed a strong divergence in the crisis (Chart 1.4) and stabilisation since 2013. It should be noted, however, that this was accompanied by a relatively small fall in activity rates ⁽⁴⁰⁾.



These trends in employment and unemployment were accompanied by a polarisation of employment between households within Member States. In some Member States, there have been very significant shifts in the distribution of work intensity among households since the pre-crisis period (Chart 1.5). These were either shifts towards more households with low work intensity of 0-50% (in particular in Greece, Spain, Ireland, Portugal, Cyprus and Lithuania) or shifts

towards more households with work intensity above 80% (in particular in Bulgaria, Germany and the UK). The situation was fairly stable in around one third of Member States (France, Luxembourg, Finland, Italy, Croatia, Malta, Hungary, Sweden and Belgium).



1.3. Convergence and divergence in household incomes

1.3.1. Increasing income inequality with less differences between countries

Income inequality is usually measured by the Gini coefficient (which runs from 0 representing full equality to 1 representing total inequality).⁽⁴¹⁾ There is growing evidence that higher income inequality can have adverse consequences for sustainable growth, macro-economic stability, investment in human capital and job creation ⁽⁴²⁾ ⁽⁴³⁾. For example, a 3 points increase in inequality ⁽⁴⁴⁾ appears to be associated with a 0.35 percentage point fall in annual GDP growth. A rising income share for the top quintile is associated with a decline in medium-term growth and similarly an increase in the income share of the bottom quintile is linked to a higher level of economic growth (see Dabla-Norris et al. (2015)) ⁽⁴⁵⁾. Technological progress, changes in the world of work and family life and globalisation have affected income

⁽⁴¹⁾ The Gini coefficient is a measure of statistical dispersion intended to represent the income distribution of a nation's residents. See for instance Monfort (2008) or European Commission (2015).

⁽⁴²⁾ See for instance Berg and Ostry (2011) and Cingano (2014) which stress the importance of the gap between low-income households (in particular the bottom four deciles of the income distribution) and the rest of the population.

⁽⁴³⁾ Ostry et al. (2014) show that lower net inequality is correlated with faster and more sustainable growth and that redistribution generally has a benign impact on economic growth. The study does not support the idea of a trade-off between equality and growth.

⁽⁴⁴⁾ Corresponding to the increase recorded in the OECD since the beginning of the 1990s, see Cingano (2014).

⁽⁴⁵⁾ Furthermore, some studies suggested that the seeds of the financial crisis were fertilised by rising income inequality (Rajan, 2010; Stiglitz, 2012) and that high inequality can imperil democratic legitimacy. (see Kuhn et al., 2016).

⁽³⁹⁾ See for instance European Commission 2014, chapter 4.

⁽⁴⁰⁾ The convergence of activity rates continued during the crisis and activity rates stood up well on average, even in the most affected regions, implying that there were no significant withdrawals from the economically active population. See for instance European Commission 2014 chapter 4.

inequality across the developed world, while policies supporting skills and regulating the labour market have an important balancing impact on inequality and poverty, as do social protection and taxation⁽⁴⁶⁾.

The increase in income inequality⁽⁴⁷⁾ in the EU since 2007, particularly in the Euro area (see Main Employment and Social Developments Chapter) continues a longer-term trend of increasing income inequality⁽⁴⁸⁾. Changes in income inequality are driven by a number of factors, in particular the polarisation of access to employment among households (especially for low-skilled workers) and changes in the impact of taxes and social benefits⁽⁴⁹⁾ ⁽⁵⁰⁾. Other factors which typically have an impact in the longer run, include changes in skill and household structures (e.g. more couples with similar socio-economic backgrounds⁽⁵¹⁾, more single-person and single-parent households), the demographic composition of the population and changes in female employment levels⁽⁵²⁾ ⁽⁵³⁾.

Overall, inequality levels have converged between Member States since 2005 (**Chart 1.6**), with a notable reduction in inequality levels in Member States that joined the EU in the 2000s, as measured by the Gini coefficient. However, this convergence halted in 2012. Income inequality declined in many of the countries with the highest initial levels of inequality, but increased in several countries with low initial Gini coefficients, such as Slovenia, Denmark, Sweden or Germany (**Chart 1.7**).

⁽⁴⁶⁾ See European Commission, 2012 and Dabla-Norris et al. 2015 for a recent analysis of the causes of income inequality and poverty.

⁽⁴⁷⁾ Inequality as measured by the Gini coefficient of equivalised disposable income.

⁽⁴⁸⁾ See for instance European Commission, 2012 and OECD 2008, 2011 and 2015.

⁽⁴⁹⁾ See for instance ESDE 2011 and OECD 2011.

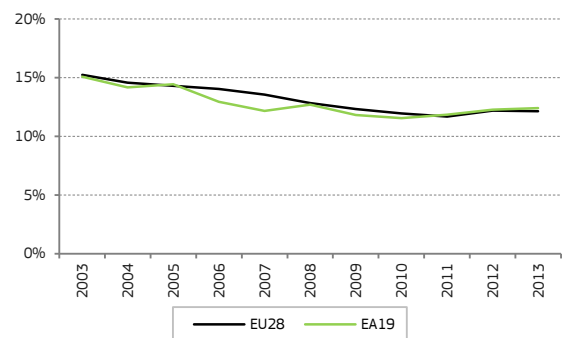
⁽⁵⁰⁾ At the top of the income distribution, changes are also connected to changes in policies on capital, incomes and tax (see Piketty 2014).

⁽⁵¹⁾ Assortative mating or marital homogamy means that partners are alike in their socio-economic or educational background. Greenwood et al. (2014) found with US data that if matching of partners had been random instead of the patterns found in real life, the Gini coefficient would have been 0.34 instead of the observed 0.43. This means that assortative mating is an important source of income inequality, at least in the United States.

⁽⁵²⁾ Harkness (2010) finds an inverse relationship between female employment and income inequality, meaning that women's earnings attenuate income inequality despite gaps in female employment by educational background. Furthermore, rising female labour force participation since the 1970s has had a significant poverty reduction impact in the OECD countries (Nieuwenhuis et al., 2016).

⁽⁵³⁾ For a more complete literature review on drivers of income inequality, see European Commission (2012, 79-87).

Chart 1.6: Dispersion of income inequality in Europe (2003-2014)

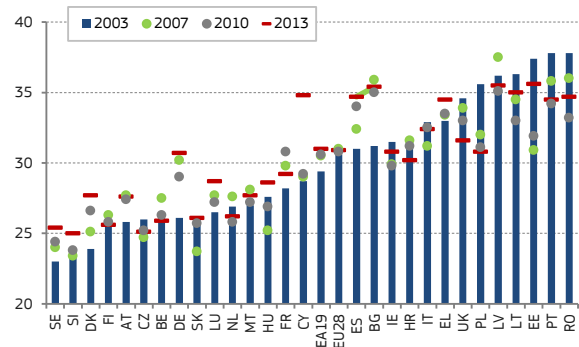


Note: data for Croatia as of 2010 only. Some missing data are kept constant (IE 2014, BG 2005, HR 2005-09, RO 2005-06). Latest year corresponds to SILC 2015 (i.e. latest available data at time of drafting. 2014 is the income reference year).

Source: Eurostat, Gini coefficient of equivalised disposable income (source: SILC [ilc_di12]).

[Click here to download chart.](#)

Chart 1.7: Gini coefficient of equivalised disposable income (2003-2013)



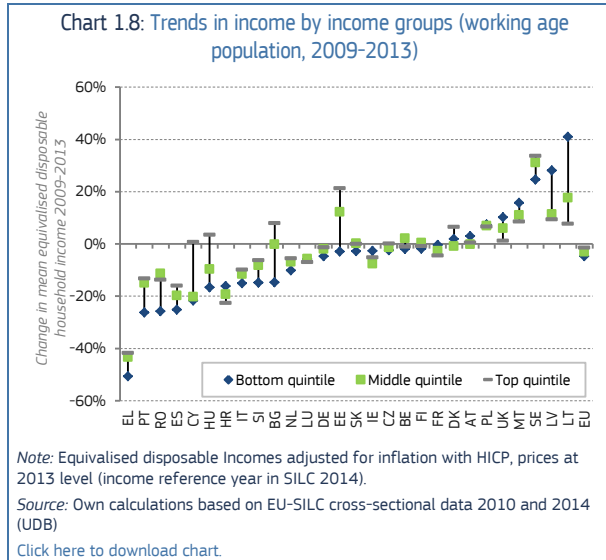
Note: Some missing data are kept constant (IE 2014, BG 2005, HR 2005-09, RO 2005-06). Latest year corresponds to SILC 2015 (i.e. latest available data at time of drafting. 2014 is the income reference year).

Source: Eurostat, SILC [ilc_di12].

[Click here to download chart.](#)

1.3.2. Divergent trends within the working age population

The pattern of changes in incomes for different income groups within the working age population (aged 20-64) has varied a lot since 2009 (**Chart 1.8**). In around half of the countries incomes have declined and the lower incomes have often declined the most. By contrast, in Lithuania, Latvia, Malta and the UK, where incomes have risen, those in the lowest income group experienced a bigger increase than the highest or middle income groups.



1.3.3. Increasing poverty levels and dispersion among Member States during the crisis

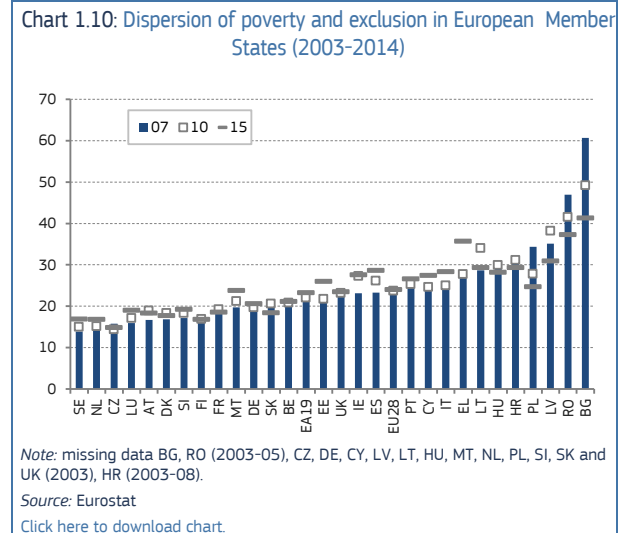
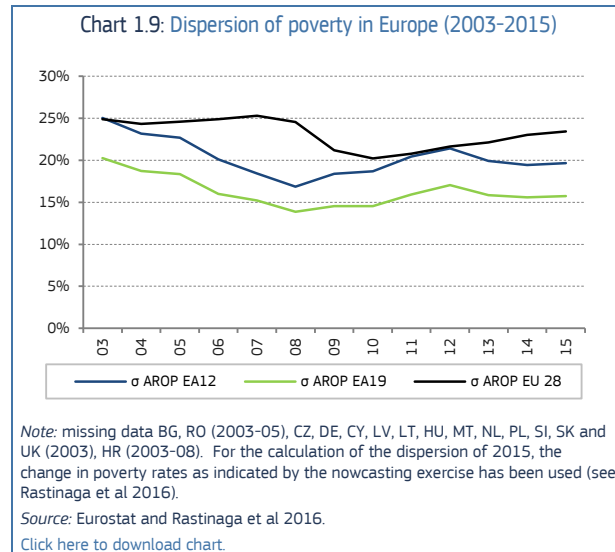
As discussed in the key developments chapter, the proportion of people in the EU living at risk of poverty or social exclusion (AROP) increased between 2009 and 2012, mainly reflecting a slow rise in monetary poverty and an increased share of households with very low work intensity. It then stabilised at about 24.5% in 2013 and 2014 and decreased to 23.7% in 2015 (23.0% in the EA), according to the latest available data

However, there is a striking variation across countries (Chart 1.10)⁽⁵⁴⁾. In some Member States that joined the EU in the 2000s with initially high levels of poverty, the numbers of people suffering severe material deprivation fell⁽⁵⁵⁾. Between 2007 and 2014, the AROPE rate fell by 20 percentage points (ppts) in Bulgaria, by 10 ppts in Poland and by 6 ppts in Romania. On the other hand, the number of people affected grew significantly in Greece (8 ppts) and Spain (6 ppts), countries hardest hit by the economic crisis; numbers also grew, though to a lesser extent, in Ireland, Estonia, Italy, Malta and Slovenia. While these trends slowed, but did not stop the longer-term

⁽⁵⁴⁾ See also Employment and Social Developments in Europe 2011 review for earlier analysis in patterns of poverty and social exclusion in Europe (European Commission, 2012, chapter 3).

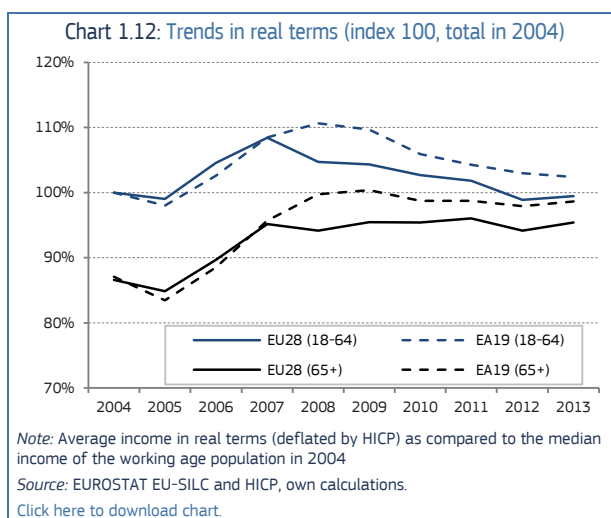
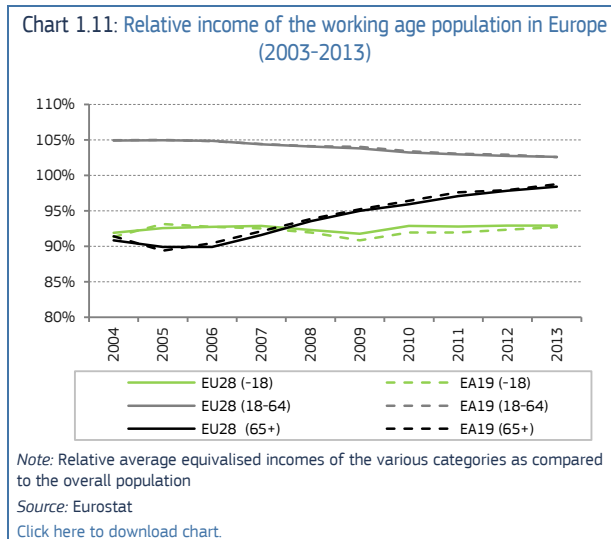
⁽⁵⁵⁾ As the poverty threshold is linked to the median incomes in the country (set at 60% of the median income), when median incomes falls, the relative poverty rate may get smaller. Similarly, during rapid growth when median income rises, the poverty rate can grow even though living conditions and incomes at the bottom end of the income distribution are improving. Indeed, the indicator of relative poverty identifies people who are relatively worse off in society, those who fall below the poverty threshold. To show trends in more absolute poverty and exclusion, this measure of relative poverty can be complemented with information on severe material deprivation – to identify people who lack some basic necessities – and on joblessness – to identify people who are excluded from the labour market. In addition, anchored poverty thresholds can be used to neutralise the impact of changes in median incomes. The increase in anchored poverty is especially high in countries where median incomes fell as a result of the crisis, such as Greece, Spain and Ireland.

convergence of poverty and exclusion rates in Europe, the crisis caused some increased dispersion of monetary poverty in Europe and in the Euro area (Chart 1.9).



1.3.4. Incomes of the working age population declined relative to other groups

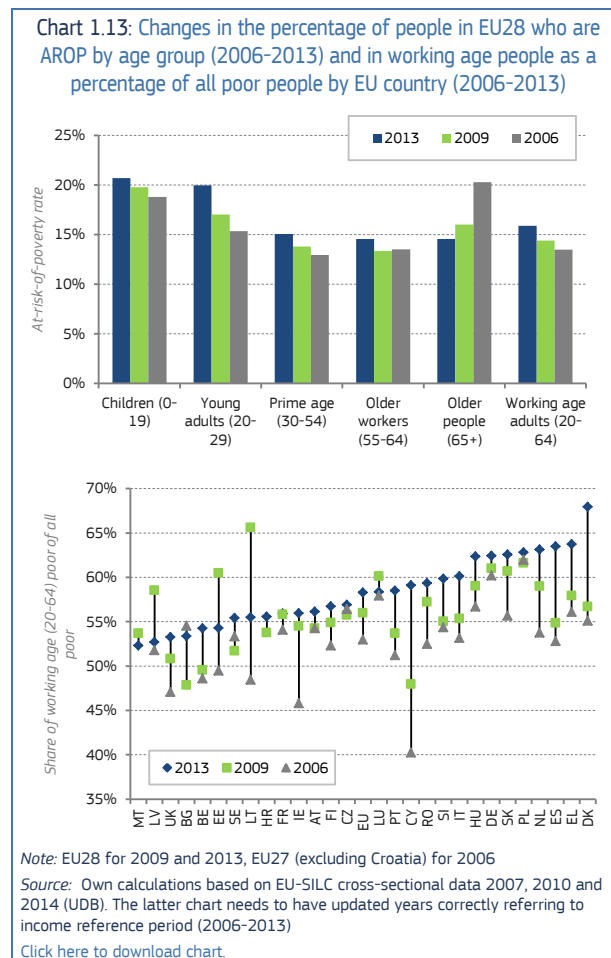
The incomes of working age people suffered more during the economic crisis than those of younger people (aged under 18) and older people (aged 65 or over). The relative income position of older people has generally improved in recent years in spite of the crisis (see also the 2015 Ageing and Pension adequacy reports). On average across the EU28, the median disposable income of those aged 65 or above stood at nearly 100% of that of the total population in 2013, as compared to less than 90% in the mid-2000s (Chart 1.11). Over the same period, the relative position of people aged 18-64 slightly weakened (from 105% to around 103%) and that of children (aged under 18) has been broadly stable (around 93%). These trends essentially reflect the average decline of real incomes among the working age population (and their children) while the real incomes of older people remained broadly constant (Chart 1.12).



Against this background, the crisis has shifted the pattern of poverty across age groups. In particular, the poverty risk of older people fell from 20.3% to 14.6% between 2007 and 2014, and is now lower than the poverty risk of the working-age population (aged 20-64), or of prime-age adults (aged 30-54). One striking trend has also been the increase in the at-risk-of-poverty rate (AROP) of young adults (aged 20-29, see **Chart 1.13**). On average, their poverty risk has increased the most of all age groups from 15.4% in 2007 to 20% in 2014. This confirms the perception that there is an increasing problem of intergenerational equity and fairness, which is to some extent linked to problems in entering the labour market in particular for young people and in finding jobs with permanent contracts; it is compounded by problems of access to financing and building up adequate pension requirements. A key driver of the increase in poverty among the working age population is the increase in jobless households (see section 2.3).

The decreases in old age poverty are linked to pensions being maintained in real terms (and even increased due to price indexation mechanisms in a context of inflation slowing down during the crisis), when incomes from wages and salaries were under pressure (see section 2.1 and European Commission, 2015). Furthermore, new pensioners have tended to

have accumulated better pension rights than previous generations. As a result of these trends, the proportion of the working-age population among the poor in Europe has increased from 53% in 2007, to 56 % in 2010 and 58 % in 2014, varying from 52% in Malta and 53% in Bulgaria, Latvia and the UK to 68% in Denmark).



1.4. Convergence and divergence in wages and competitiveness

Wages in combination with productivity have an effect on competitiveness through unit labour costs. During the decade before the crisis, the unit labour costs (ULCs) of Member States diverged strongly, which fuelled unsustainable growth in countries that lost competitiveness and led to some correction afterwards. The divergence in nominal unit labour cost (ULC) over the period 2000-07 was significant (see **Chart 1.14**). In the long run, such a strong divergence between members of a currency union may pose substantial challenges (see section 1.5). Several Member States greatly exceeded the 2% annual growth target⁽⁵⁶⁾, particularly Ireland, Spain and, to a lesser extent, Greece, Italy and Portugal. In contrast, Germany, and to a lesser extent Austria and Finland, undershot this benchmark⁽⁵⁷⁾. These divergent

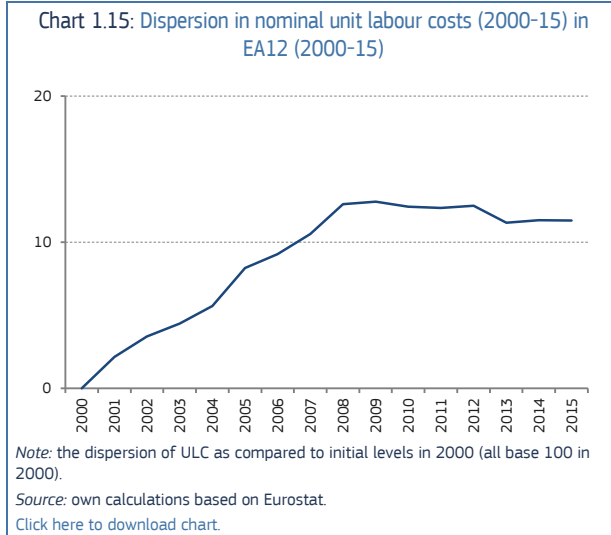
⁽⁵⁶⁾ The 2% per year annual increase corresponds to the ECB's inflation target, as if real wages grow in line with productivity developments, nominal ULCs will grow at the same rate as nominal prices.

⁽⁵⁷⁾ See ESDE 2014.

developments led to an unsustainable distortion of competitiveness within the Euro area.

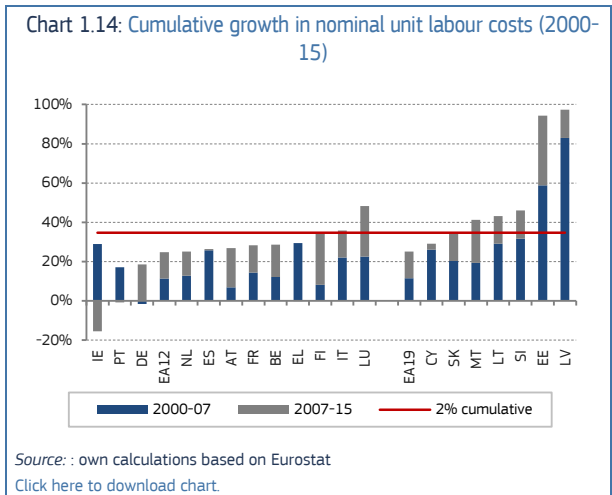
While adjustments in nominal compensation growth are often seen as one way to correct such divergences in ULCs - at least in the short run -strengthening labour productivity is another way to restore external balance and promote upward convergence. The divergence in ULCs in the run-up to the crisis reflected weak average productivity gains in some countries which had experienced higher than average growth in ULC (in particular IT and ES). In contrast, Greece and Ireland (together with Finland) showed the strongest increases in productivity but also recorded much stronger than average increases in nominal compensation per employee. At the same time Germany, and to a lesser extent Austria, showed fairly robust productivity growth in combination with relatively weak growth in nominal compensation per employee ⁽⁵⁸⁾.

On the whole, rebalancing over the period 2008–15 period allowed the dispersion in ULC growth in the EA12 to stabilise, and slightly curbed some of the divergence observed in the 2000–07 period (Chart 1.15). While, on average, nominal ULCs remained below the 2% inflation benchmark, corresponding to the ECB inflation target this was mostly achieved through significantly below-average changes in some Member States which had previously experienced above-average increases (particularly Ireland, Greece, Spain and Portugal, which all saw declines or stagnation in nominal ULCs). However, in Member States such as Austria and Germany which had previously registered modest increases, increases were not significantly above average.



1.5. Divergence is a specific challenge within the Euro area

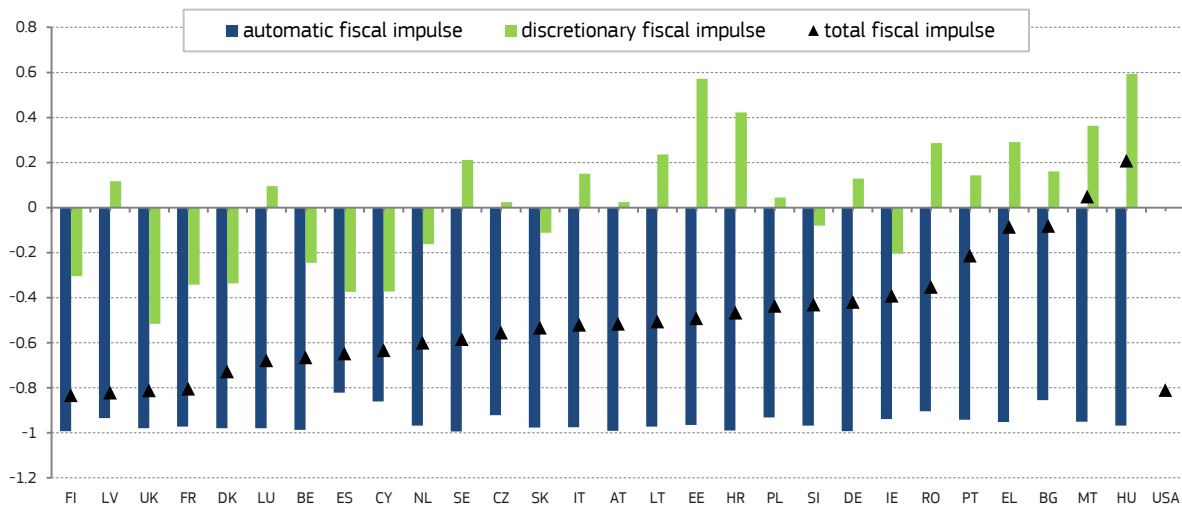
A monetary union has a number of specific features, related to the absence of an exchange rate adjustment channel and to the functioning of fiscal and monetary policy. The available literature underlines that asymmetric shocks can drive short-run divergence in socio-economic performance in the Euro area, and that adverse developments can persist for longer, linked in particular to weakening of competitiveness (see Box 1.2) ⁽⁵⁹⁾. For instance, following a strong internal contraction (of 10%), reaching similar outcomes with fixed exchange rates takes 4 years longer than with flexible exchange rates (other things being constant). Similarly, adjustment through a fiscal devaluation takes 4 - 5 years longer than adjustment through an exchange rate devaluation (see Vogel (2016)).



⁽⁵⁹⁾ See for instance European Commission 2014 chapter 4.

⁽⁵⁸⁾ See for instance ESDE 2014 chapter 4.

Chart 1.16: Correlation between the fiscal impulse and the change in the output gap (1996-2015)



Note: the fiscal impulse is measured as the change in the net lending position, either the total or the discretionary component (corresponding to the structural adjustment based on trend GDP Excessive deficit procedure - UBLGA) or the automatic component (total change minus discretionary component). The output gap is measured as the gap between actual and potential GDP (AVGDGP). Some missing values HR 1996-2001, CZ, CY, SI 1996-1998, LV, LT, HU, SK 1996-97.

Source: AMECO.

[Click here to download chart.](#)

The more limited adjustment capacity can also generate strong adverse socio-economic consequences (such as distributional impacts, hysteresis effects, and interactions with product markets), which may generate self-reinforcing adverse labour market developments that increase the duration and intensity of an economic downturn, with the risk of a permanent loss of potential output and employment ⁽⁶⁰⁾.

In the event of asymmetric shocks, effective macro-economic stabilisation and the adjustment capacity of national economies are key to providing effective support to the national economy in the context of the economic and monetary union. They are also crucial for strengthening the synchronisation of business cycles, making the impact of the common monetary policy more effective. Moreover, even symmetric shocks can have asymmetric effects as transmission channels are different across economies, partly reflecting differences in economic structures. .

Resilience to an asymmetric shock is all the more important because there is evidence that, since the introduction of the euro, there have been at least as many asymmetric shocks as before (as measured by the dispersion in growth rates (for instance; see European Commission (2008), Pisani (2012) and Allard et al. (2013)). Also, the levels of risk sharing and labour mobility in the Euro area remain relatively low (see **Box 1.2**).

In this context, the functioning of automatic stabilisers and of the various mechanisms that allow the labour market to adjust following shocks impacts on the smooth functioning of the EMU. Most fiscal macro-economic stabilisation is obtained through automatic stabilisers. Discretionary fiscal policies have tended to be pro-cyclical in Europe for around half of Member

States since 1995, while in general automatic changes in the fiscal position have been strongly linked with changes in the output gap (see **Chart 1.16**). All in all, in the EU only a few countries (Finland, Latvia, UK, France and Denmark) have experienced the possibility to have fiscal policy positions as strongly contra-cyclical as the US on average over the last two decades (see **Chart 1.16**).

Furthermore, in the area of labour markets, a growing body of literature emphasises the importance of the interaction of shocks with institutions (see e.g. Acemoglu et al (2003) and Rodrik (1999)) focusing on how labour market institutions may influence the capacity of an economy to withstand a shock, once it hits. Employment and social policies can strengthen the capacity to cope with economic shocks, making the reaction to shocks either quicker or stronger, and supporting increased competitiveness. Typically, employment and social policies support macroeconomic stabilisation and labour market adjustment as well as better labour market transitions and can prevent scarring and hysteresis effects resulting from economic slowdowns ⁽⁶¹⁾. The next section focuses on the impact of the tax benefit system, while reviewing other important policy areas and institutional features would be beyond the scope of this chapter (such as the structure of collective bargaining systems, elements of employment legislation including the design of working time arrangements (including short time working schemes) and of wage setting (including of minimum wages)

⁽⁶¹⁾ See for instance European Commission 2014, chapter 4.

⁽⁶⁰⁾ See for instance European Commission DE 2014 chapter 4 for a review of effects.

Box 1.2: Specificities of economic adjustments in a monetary union

In a monetary union, trends in price competitiveness cannot be corrected by nominal exchange rates which are fixed. Price competitiveness relates to nominal wage dynamics but also to productivity trends – and in particular to developments in skills – and can be directly monitored by trends in nominal unit labour costs.

In the event of accumulation of ULC gaps, adjustment cannot be borne by the exchange rate channel, but only by an internal devaluation process (including fiscal devaluation). This generally takes much longer to be effective and can have strongly adverse social and employment impacts. This underlines the key importance of a careful monitoring of competitiveness developments. In addition, growing gaps in competitiveness can be reinforced by agglomeration effects linked to increasing economic specialisation due to trade integration (see, for instance, Krugman 1993) and the absence of exchange rate risks which can also favour a shift in economic activity away from less developed regions, especially if they were in the periphery of the Community, to the highly developed areas in the centre.

In addition, in a monetary union, asymmetric shocks cannot be smoothed by adjustment in exchange rates. Available channels for adjustment at the Member State level include, on one hand, market-based channels such as wages, prices and labour mobility (geographic and occupational), and private capital flows, and, on the other hand, policy-based channels including fiscal policies such as automatic stabilisers, discretionary taxes and public expenditure. Indeed, the common monetary policy cannot provide support in the event of asymmetric shocks, but only in the event of common (or symmetrical) shocks. In addition, higher business cycle synchronisation allows the monetary policy to be more effective. While a number of factors affect trends in business cycle synchronisation, increased trade integration can lead to more synchronisation of the business cycle (see, for instance, Frankel and Rose, 1998). There are other forces that reduce synchronisation, such as higher specialisation, as well as variations in the development of real interest rates (see, for instance, European Commission 2014).

There is thus a risk that in the absence of national monetary policy instruments (including nominal exchange rates) and with downward rigidity in prices and wages, an adverse asymmetric shock translates into additional adjustment through quantities (including raising unemployment and decreasing real income), in particular when stabilisation mechanisms are not effective enough. This is especially the case when access to capital markets is limited (so that the adjustment burden cannot be spread over time) or when prices or wages are sticky (involving a lengthier adjustment process and additional downwards pressure on the economy).

In addition, available estimates of the overall level of risk-sharing (smoothing capacity against the impact of country-specific shocks) in Europe suggest that it remains low, compared with Canada or the USA (see Allard et al. (2013) and Van Beers et al. (2014)). It appears that the relative weakness of risk-sharing in Europe and the EA does not derive from the credit markets, but is mainly due to lower risk-sharing in the capital market channels and fiscal transfer channels (which are comparatively few, see Chart). Finally, intra-EU labour mobility remains limited, compared with other OECD countries (such as the US, Canada or Australia) (). However, while the migration response to labour market shocks prior to the crisis was stronger in the USA, recent evidence suggests that migration in Europe reacted quite strongly to changes in labour market conditions – more so than in the USA, where internal mobility seems to have declined (see, for instance, Jauer et al., 2014).

2. CONVERGENCE AND DIVERGENCE OF POLICIES AND EXPECTED IMPACT ON SOCIO-ECONOMIC OUTCOMES

2.1. The impact of social protection expenditure and automatic stabilisers

Social protection expenditure generally helps to stabilise the economy in difficult 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 benefits). Health and pensions expenditure play a role too, but to a lesser extent, since they generally increase or remain constant, while market incomes decline.

2.1.1. Social protection expenditure trends

At the onset of the crisis (2007-2009), social protection expenditure was the main contributing factor to the stabilisation of household incomes in

Europe, but this effect weakened over time because these systems were not designed for a prolonged recession and some countries were affected by fiscal consolidation measures. In 2014, employment incomes started to increase again, reflecting an improvement in labour market conditions ⁽⁶²⁾.

While total social expenditure increased significantly in 2009 as a result of the sharp recession, social expenditure grew at a modest pace in 2010, declining in real terms in 2011 and 2012, in a pro-cyclical manner (see Main Employment and Social Developments Chapter). Reforms implemented in the context of fiscal consolidation explain part of the reduction in expenditure, while indexation mechanisms mostly contributed positively in 2012 (the lag in indexation of benefits leading to a real increase of benefits in a period of declining inflation). The increase in old-age expenditure remained mainly driven by demographic factors (more older people) but was significant in 2009 and then stayed below its long-term trend before stabilising in 2011-12 (see for

⁽⁶²⁾ See for instance *EU Employment and Social Situation - Quarterly Review – Summer 2016*.

instance ESDE 2015). Social benefits continued to increase slightly in comparison with 2013 in real terms, mostly reflecting the slowdown of inflation and related play of indexation mechanisms ⁽⁶³⁾.

The pattern of expenditure growth varied significantly across Member States. For example, in 2009 social protection expenditure had grown strongly (by over 10%) in Spain, less strongly in Germany (around 7%), and even less strongly in France (5%) and Italy (3%). More strikingly, in 2012 social protection expenditure declined in Spain (-4%) and Italy (-2%), while barely changing in Germany and slightly increasing in France (+1%). The declines registered in Italy and Spain in 2012 affected nearly all areas and particularly health and unemployment expenditure in Spain and health and pension expenditure in Italy.

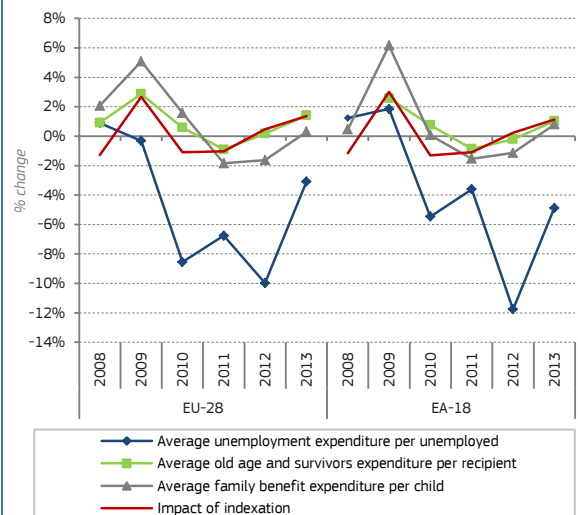
The strong overall expenditure growth observed in 2009 also reflects the impact of the price indexation mechanisms that are usually attached to social benefits (as well as services), and generally work with a lag of 1 year (inflation from year N-1 is used to index benefits in year N) ⁽⁶⁴⁾. The relatively high inflation observed in 2008 was only translated into benefit levels in 2009, when inflation was relatively low. Inflation slowed down in 2008-11, but because of lagged indexation mechanisms, there was a significant increase in the real growth of most benefits, especially in 2009.

While such indexation mechanisms contribute to the automatic increase of benefits in real terms in times of crisis, related automatic increases in real terms generally apply to all types of expenditure and in particular to pension expenditure (see **Chart 1.17**). However as pensioners' incomes were not particularly affected by the massive increases in unemployment seen during the crisis and their propensity to save is relatively high, particularly as compared to working age household seeing a drop in their labour income, it is questionable whether the related resources were contributing to the overall effectiveness of automatic stabilisation in the most efficient way. Furthermore, the significant increase observed in 2009 weighted pension expenditure levels for the following years.

⁽⁶³⁾ The stabilising role of social benefits is analysed in detail in the 2013 and 2015 reviews of Employment and Social Developments in Europe.

⁽⁶⁴⁾ It should be noted that price inflation is not the only possible basis for pension indexation. It is quite common for Member States to index pensions on some other basis, such as nominal wages, partial nominal wages or mixed indexation of wages and prices (see Ageing report 2015 for a detailed overview).

Chart 1.17: Annual change in real expenditure per potential beneficiary (2007–13)



Note: missing values for EL and PL in 2013.

Source: ESSPROS, own calculations.

[Click here to download chart.](#)

Countries like Germany, Spain and Sweden have legislated for automatic balancing mechanisms that reduce pension indexation if employment falls (see Ageing Report 2015). The same effect has sometimes been achieved by discretionary measures, such as temporarily reducing or freezing pension indexation.

2.1.2. Automatic stabilisation

Estimates of the overall impact of automatic stabilisers in the economic literature ⁽⁶⁵⁾ show that, around 10–20% of output shocks are smoothed (see ESDE 2012) ⁽⁶⁶⁾. There is some evidence that countries with bigger public expenditure (over the economic cycle) tend to have larger automatic stabilisers (due to the greater stabilising impact of revenues and expenditure, see e.g. Baunsgaard and Symansky (2009)).

Social protection systems represent the major share of automatic stabilisation, as was experienced in 2009 (see for instance ESDE 2012 ⁽⁶⁷⁾). Two obvious channels are taxes and social contributions and expenditure. Revenues increase in upswings and decrease in downturns and expenditure the reverse in standard recessions (translating into increases of unemployment). On the expenditure side, the most prominent automatic stabilisers are unemployment benefits, but they generally only account for a small share of government budgets. More generally,

⁽⁶⁵⁾ For instance, In't Veld et al. (2012) argue that differences in the assessment of the working of automatic stabilizers reflect a basic disagreement over how the budget would look without automatic stabilisers (constant absolute revenues and spending, or constant deficit-to-GDP ratio, etc.).

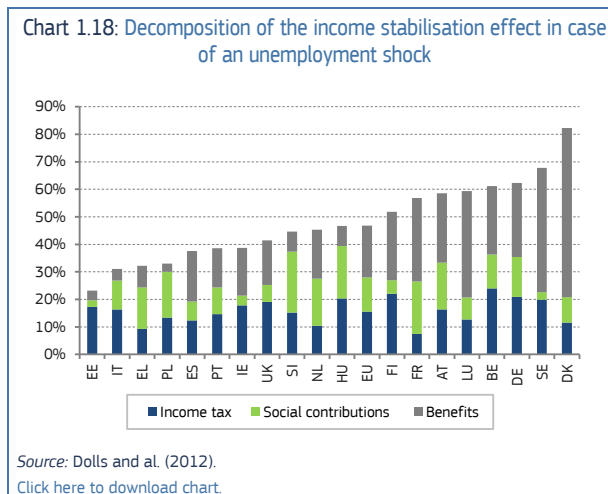
⁽⁶⁶⁾ Estimates can differ depending on the estimation approach chosen. Differences in estimations typically depend on the type of the fiscal stimulus and the selected approach e.g. whether it is econometric-based (e.g. Gali, 1994; Fatas and Mihov, 1999) or model-based (Van den Noord, 2003, Buti et al., 2003).

⁽⁶⁷⁾ In particular chapter 3, table 4.

automatic stabilisation is not necessarily limited to cyclically sensitive items in the budget (see In't Veld et al. 2012) and age and health related social expenditure also reacts to the cycle in a stabilising manner (see Melitz and Darby 2008) ⁽⁶⁸⁾.

Member States have varying levels of automatic stabilisation, reflecting the characteristics of their welfare systems. For instance in the first phase of the crisis (2005–09), Greece was a clear outlier, with some pro-cyclicality; Eastern European Member States (such as Lithuania, Romania, Hungary) were also showing pro-cyclical features. By contrast, Ireland, Finland, Cyprus and Sweden had quite strongly anti-cyclical systems ⁽⁶⁹⁾. In some countries, such as Italy and Poland, the stabilisation impact works mainly through pensions and unemployment benefits play a negligible role, while in others such as Denmark and Spain unemployment benefits have a strong anti-cyclical effect ⁽⁷⁰⁾.

Before the crisis, the smoothing impact of taxes and benefits in the event of an increase in unemployment differed significantly among Member States (Chart 1.18). Some countries experienced relatively low levels of 40% or less of the income shock smoothed (Estonia, Italy, Greece, Poland, Spain, Portugal and Ireland), while in some others the impact of the tax benefit system was more significant, reaching 60% or more, thanks to differences in the response of benefits, mainly unemployment benefits (such as in France, Austria, Luxembourg, Belgium, Germany, Sweden and Denmark).



⁽⁶⁸⁾ In the literature, the size of the government is also associated with automatic stabilisation. Research has shown that the size of government is negatively correlated with the volatility of GDP since the bulk of government discretionary expenditure, such as wages and transfers, is generally not cut during economic downturns or increased during upturns. Also, this inertia aspect of government expenditure has a stabilising effect on total output, as we see in the next section.

⁽⁶⁹⁾ The calculations are based on how output gap and expenditures changed between late 1990s and 2000s and therefore conclusions on the anti-cyclicality feature of welfare systems only apply to this period. The current crisis and reforms might change the functioning of the systems.

⁽⁷⁰⁾ See ESDE 2012 chapter 3.

As, in some Member States, coverage and replacement rates are relatively low compared to the European average (see section 2.2), the stabilisation effect of unemployment benefits in periods of crisis can be affected negatively. If the design of unemployment benefits systems would be more adapted to the economic cycle, this could improve their anti-cyclical effect. For example, during economic downturns, the maximum benefit duration can adjust for the stronger need for stabilising incomes, as is the case in the USA, with a very significant impact on the coverage of unemployment benefits ⁽⁷¹⁾. Conversely, during recoveries, the unemployment benefit system rules can come back to the pre-crisis situation, providing stronger work incentives and preventing cyclical unemployment from becoming structural ⁽⁷²⁾.

The Five Presidents Report ⁽⁷³⁾ emphasised that the creation of an EA-wide fiscal capacity should be considered as a long-term step to improve the macro-economic stabilisation of EA economies, in particular in the case of asymmetric (temporary) shocks. The report also underlined the need to proceed in parallel with a process of political integration, which would culminate in a process of convergence and further pooling of decision-making on national budgets. It underlines the following principles for a fiscal capacity, i) "it should not lead to permanent transfers (...) and should not be conceived as a way to equalise incomes between Member States", ii) "it should not undermine incentives for sound policy making at the national level" (...), iii) "it should be developed within the framework of the European Union" and iv) " (...) its role should be to improve the overall economic resilience of EMU and individual Euro area countries. It would thus help to prevent crises". The design of such stabilisation mechanisms could take different forms including a link to convergence towards a number of standards. ⁽⁷⁴⁾ The functioning of such mechanisms could build on available instruments e.g. as underlined in the Five Presidents Report on the EFSI and could provide support for investment or other forms of budgetary support, including some form of unemployment benefit system.

Three forms of fiscal capacity linked to employment and social developments are commonly discussed in academic circles ⁽⁷⁵⁾: transfer systems (which lead to budgetary flows to national budgets if specific circumstances arise), reinsurance systems (which provide national unemployment systems with some reinsurance of their cyclical deficits) and actual EA-wide unemployment benefit systems ⁽⁷⁶⁾. The US

⁽⁷¹⁾ See for instance McKenna and Hugh (2016).

⁽⁷²⁾ See for instance ESDE 2012 chapter 3.

⁽⁷³⁾ Juncker and al (2015).

⁽⁷⁴⁾ See for instance Sapir (2016) and Demertzis and Wolff (2016).

⁽⁷⁵⁾ See for instance ESDE 2014 chapter 4, ESM (2016) and Vandenbroucke (2016).

⁽⁷⁶⁾ To help plug the many gaps in the analysis of such supranational schemes, the European Commission has commissioned a study on the feasibility and added value of a European unemployment benefit scheme, following a Pilot Project launched by the European Parliament.

unemployment system mixes these different features with estimates of the stabilisation provided during a recession range from 15% to 30% of the initial drop in GDP (see for instance Chimerine et al. (1999) and Vroman (2010))⁽⁷⁷⁾. A characteristic is whether the related funds are earmarked and whether unemployment expenditure would be higher than otherwise (with only the national systems at play) or could also be used to temporarily ease budget constraints. Such systems could also be designed to stabilise both geographically (e.g. across Member States) and over time, thereby allowing for the accumulation of reserves and temporary deficits. Key characteristics of such systems would include the choice of indicator that could serve as a trigger, the strength of the links to national unemployment systems, and the design of mechanisms to guard against moral hazard or lasting transfers.

2.2. Investment in human capital, access to employment and support to the jobless

Leaving aside some important aspects of a well functioning adjustment capacity (such as wage setting mechanisms, collective bargaining systems or employment legislation that are beyond the scope of this chapter), the question arises whether there has been some convergence in Member States policies that support higher investment in human capital (such as life-long learning), easier access to employment (such as active labour market policies) and income support to the jobless (such as unemployment benefits and minimum incomes).

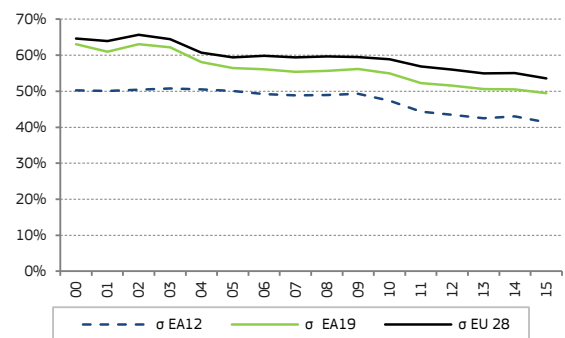
Participation in learning brings a broad range of benefits. Individuals can expect economic, social and well-being benefits from participation in learning, with the strongest evidence existing for the impact on employability. Employers also benefit from the impact on productivity and profitability of companies, while, adult learning also brings broader benefits to society overall (see European Commission, 2015). The available literature also suggests that unemployment benefits may increase the duration of unemployment, but active labour market policies can remedy this and increase the quality of matching between jobs and workers. Benefits provide income support during unemployment spells that allows individuals to search for the most suitable job, while active labour market policies maintain the motivation of jobseekers to search for employment and to improve their employability, thus expanding their opportunities to find jobs suited to their skills and abilities (see **Box 1.3**). When evaluating labour market policy outcomes it is important to focus not only on re-employment, but also on the type and quality of the transition toward employment.

2.2.1. Skills structures and life-long learning

The average level of education of the working age population continues to rise, and the educational

standards attained by 16–39 year olds in different EU countries have tended to converge over the past 15 years (see **Chart 1.19** and **Chart 1.20**). These trends were not affected by the economic crisis, suggesting that there has not been any significant deterioration in the potential for long-term growth. Reduced dispersion in the proportions of 16–39 year olds with no more than lower secondary education (ISCED levels 0–2) is worth noting.

Chart 1.19: Dispersion of education performance in the EU28 (percentage of population aged 16–39 with no more than lower secondary education) (2000–2015)

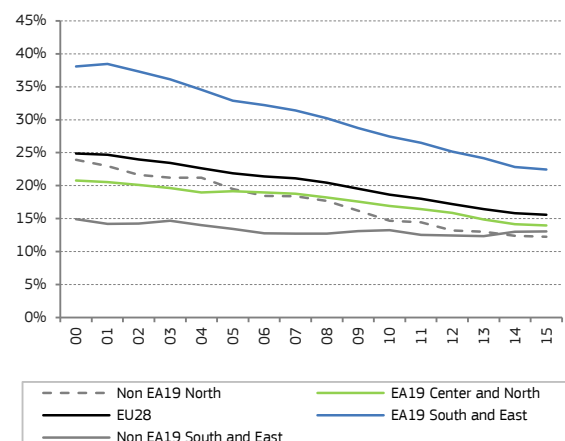


Note: σ values refer to the coefficient of variation (based on weighted averages)

Source: Eurostat, own calculations.

[Click here to download chart.](#)

Chart 1.20: Changes in education performance in the EU28 (percentage of population aged 16–39 with no more than lower secondary education) (2000–2015)



Note: some missing data at the beginning of the period were kept constant for the calculation of dispersion.

Source: Eurostat own calculations.

[Click here to download chart.](#)

As noted in section 2.3.4. of the chapter on Main Employment and Social Developments, the proportions of ‘early school leavers’ in EU Member States – 18–24 years olds who have attained at most lower secondary education and not been involved in further education and training – continued to reduce and converge during the crisis (though at a reduced pace, particularly in Southern EA countries). This is a positive sign that most of the gains made before the crisis will be beneficial after it, providing stronger grounds for employment growth. Less positively, the labour market attachment of younger generations, as reflected by

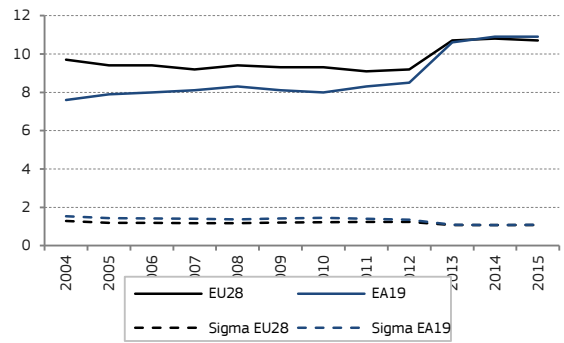
⁽⁷⁷⁾ See for instance European Commission (2013c).

the EU NEET rate which measures the proportion of young people 15-24 years old who are not in employment, education or training, has seen some significant reversal of the convergence trends in recent years. However, this mainly reflects increases in unemployment rather than inactivity ⁽⁷⁸⁾.

Any review of trends in the education of the working age population needs to be complemented by analysis of the trends in skills, since these are even more relevant to productivity, and similar education levels can mask very different skill levels between countries ⁽⁷⁹⁾.

The percentage of adults participating in lifelong learning has been fairly stable over the last decade in the EU (Chart 1.21), and has slightly increased in the EA. Participation varies very significantly among Member States, from below 5% in Bulgaria, Romania, Greece, Croatia, Slovakia and Poland to more than 25% in Finland, Denmark and Sweden. Over the last decade, there has been a slight reduction in the dispersion, with generally slight increases in most countries that initially had lower levels and a more mixed picture in countries with higher initial levels (with increases in Denmark and Finland and declines in Slovenia, UK and Sweden).

Chart 1.22: The proportion of adults (25-64) participating in lifelong learning, dispersion and average (2004-2015)

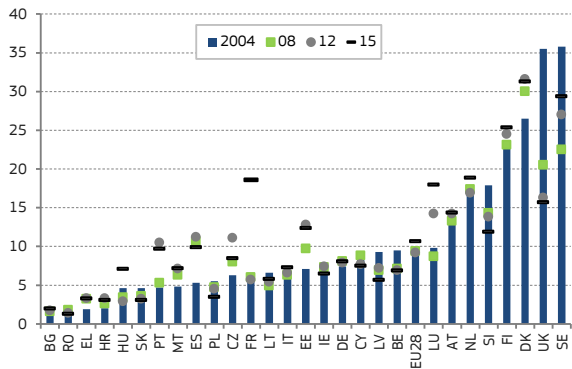


Note: dispersion measured by the coefficient of variation (over the weighted average). Break in 2013 (FR). Missing values for EL (2004-05, 2011-12), HR (2004-11), CY (2004-05, 2013), LT (2005, 2011, 2013), HU (2006-07), MT (2004-05), UK (2010-13).

Source: Eurostat LFS, own calculations.

[Click here to download chart.](#)

Chart 1.21: The proportion of adults (25-64) participating in lifelong learning, by Member State (2004-2015)



Source: Eurostat LFS, own calculations.

[Click here to download chart.](#)

⁽⁷⁸⁾ See, for instance, ESDE 2014 chapter 4 and EU Employment and Social situation, Quarterly review, March 2014.

⁽⁷⁹⁾ See, for instance, OECD (2012).

Box 1.3: Evidence about the impact of unemployment benefits and income support on labour market outcomes

Potential adverse effects on unemployment duration

While higher unemployment benefit can reduce incentives to take up work or actively look for a job but entitlement to unemployment benefit is usually integrated with active labour market policies that support job search and maintain jobseeker motivation. A number of studies suggest that longer unemployment benefit durations and higher replacement rates may lead to longer unemployment spells and thus to higher unemployment levels (Carling et al. (1996), Hagedorn et al. (2015), Vodopivec et al.(2015)). Some studies show that the probability of leaving unemployment is higher when benefit is about to expire (Katz L.F and Meyer B.D. (1990), Meyer, B. (1990), Nunziata L. (2002)). Empirical evidence has also shown that the effect of higher benefit duration and a higher replacement rate in lengthening unemployment spells can be very moderate or may not be significant (see for instance A. B. Atkinson and J. Micklewright (1991) and Eugster, B. (2013), or Jenkins S.P., Garcia-Serrano C. (2004), or Fitzenberger B. and Wilke R. (2004), or Wolff J. (2003), Tatsiramos K. and van Ours J. C. (2012), Chetty, R. (2008)), while unemployment benefits may yield employment gains in the short and long term (Ernst E. (2015)). Among the main findings are the following (see, e.g., Immervoll (2012) and Fernandez et al. (2016)): the substitution effect is generally a more powerful driver of employment behaviour, but the income effect can be relevant for some groups (e.g., spouses of well-paid principal earners) ; financial incentives affect overall labour supply mainly through their influence on labour force participation ; Low-income groups and lone parents react more strongly to financial incentives.

Positive impact on future employment prospects

The quality and stability of future employment also matters and as mentioned by M. Friedman in his Nobel Lecture, unemployment insurance is likely to encourage unemployed people to look for good quality employment rather than marginal jobs. In the absence of adequate unemployment benefits, individuals may accept an available offer, regardless of type and quality - including jobs that do not make proper use of their skills - in order to avoid a drop in income. This can affect workers' productivity and increase the future likelihood of quitting such jobs, increasing the probability that they will return to unemployment or unstable employment.

High and lasting unemployment benefits can also affect the quality of the transition from unemployment to employment (Gaure S., Røed K., Westlie L., (2008)). Benefits allow individuals to use more time and resources to engage in productive job search. Where there is incomplete information in the labour market about available job offers, finding a suitable available offer may require longer search time. By supporting search, unemployment benefits can increase job search efficiency and matching between jobs and individual skills. Improving the matching process in the labour market can stabilise workers' careers in the long run (Morel N., Palier B. and Palme J. (2012, Acemoglu, D. (2001), Burdett K. (1979), Sjöberg, O., Palme J. and Carroll E. (2010)). In turn, efficient job matching and subsequent employment stability can reduce unemployment levels and improve workers' productivity. The quality of post-unemployment jobs can be measured by the level of earnings and the stability of employment. Empirical studies shows mixed results, with some studies showing very small effects (Card D et al. (2006), Van Ours J. C., and Vodopivec M. (2006), Belzil C. (2001), Centeno M, Novo A.A. (2008), Van Ours J. and Vodopivec M. (2006)) and some recent studies showing a positive relationship between duration and level of unemployment benefits and subsequent job tenure (Centeno M. (2004), Wulfgramm M. and Fervers L. (2015), Tatsiramos K. (2009), Tatsiramos, K. (2014), Caliendo M, Tatsiramos K. and Uhlendorff A. (2012), Lauringson A. (2012)). The latter indicate that, although relatively generous benefit schemes tend to lengthen spells of unemployment, they have a positive effect on the duration of subsequent employment, which is probably the result of improved job matching.

Avoiding withdrawal from the labour force and scarring effects

Focusing only on the effect of unemployment benefits on rates of leaving unemployment may be misleading, as the transition out of unemployment can also be the result of a withdrawal from the labour force rather than entry to the labour market. Withdrawal from the labour force may happen because individuals engage in further education, or because they become discouraged and give up active job search or take up a pension. Restrictive eligibility conditions or exhausting benefit entitlements may cause people to become inactive rather than to gain employment (Atkinson A. B. and Micklewright J. (1991)). Becoming inactive has a detrimental effect on workers' human capital, which in turn has a negative effect on workers' re-employment prospects. Conversely, unemployment benefits may induce previously-discouraged workers to join the labour force, as they give them access to the support provided by active labour market policies (Nickell S. (1997)). In all EU countries, active job search is a prerequisite for benefit receipt.

If they are eligible for and receive a certain level of benefit, the unemployed maintain their consumption level (Gruber J. (1994)), which in turn gives them a better chance of re-employment, since poverty makes it more difficult for people to return to work (Gallie D., Paugam S., Jacobs S. (2003)). Moreover, empirical evidence shows that job loss and persistent unemployment are likely to have a scarring effect on workers' future earning and prospects (Ruhm C. J. (1991), Jacobson L., LaLonde R., and Sullivan D. (1993), Farber H. S. (1997), Calvo-Armengol A., Jackson M. O. (2004)). Evidence on the effect of unemployment benefit on post-employment earnings is inconclusive (Addison J. T. and Blackburn M. L. (2000), Ehrenberg R. G. and Oaxaca R. L. (1976), , Lalive, R. (2007)). However, it appears to reduce the scarring effect of long unemployment spells on future earnings (Gangl, M. (2006)). Moreover, high unemployment benefit levels can allow individuals to invest in various skills, enhancing their human capital, with possible productivity-enhancing effects for the economy (Sjöberg O., Palme J. and Carroll E. (2010)).

2.2.2. Access to active labour market policies

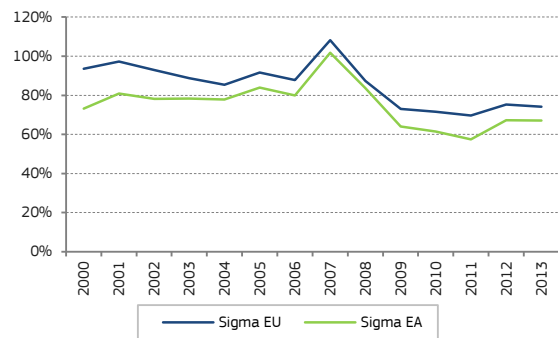
Active labour market policies (ALMPs) are essential to provide support to jobseekers in finding a job. Entitlement to unemployment benefits is generally conditional on participation in active labour market policies. These include job search assistance, labour market training, wage subsidies to the private sector and direct job creation in the public sector. Well-designed and successful schemes foster interaction between incentives, activation and benefits. The function of unemployment benefit is to provide income support during a spell of unemployment, while ALMPs are intended to maintain jobseekers' motivation and capacity to pursue employment, improve their employability and expand their opportunities of being placed in appropriate jobs (McKnight A. and Vaganay A. (2015)).

A number of studies have found that ALMPs have a positive effect on the transition from unemployment to employment and on the quality of subsequent jobs (and even an effect on the transition from employment to education see Koster F. and Fleischmann M. (2012)). The positive effects on the labour market are measured in terms of employment levels, but also post-employment stability, earnings and the likelihood of getting a permanent contract (see Fougère D. and Pouget J. (2004)). Generally, more favourable outcomes appear in the medium and long run rather than in the short run (see Card D. et al. (2010) and Dyke et al. (2006)). This also relates to active programmes, such as training, which require individuals' participation. During the participation period the job search intensity may be lower, as well as the job-finding rate (See Munch et al. (2008)). This will lead to longer unemployment spells. However, involvement in such activity increases individuals' skills, productivity and employability and avoids human capital depreciation. This in turn affects the quality of post-unemployment jobs (See Lechner M et al. (2011), (2007), Crépon B et al. (2012), Torp, H.

(1994), Brown et al. (2012)).

Training programmes and job search assistance appear to have the highest impact on the quality of subsequent employment (See Kluve J. (2006), Bassanini, A. and R. Duval (2006), Rodriguez-Planas N., Benus J. (2010), Lehmann H. and Kluve J. (2010)). Job search assistance generally involves counselling, job search training and in some cases job-brokering. This helps to tackle incomplete information in the labour market about available job offers. Moreover, counselling supports individuals in finding the job that best suits their skills, providing them with the support they need to successfully re-enter the labour market.

Chart 1.23: Coverage of ALMPs in EU and EA by Member State (2006-2014)



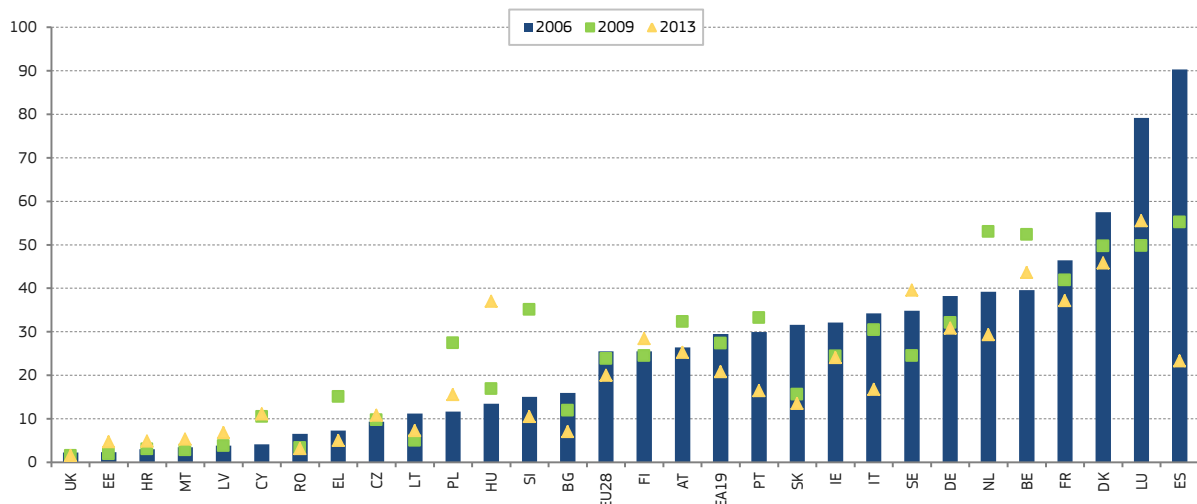
Note: dispersion measured by the coefficient of variation (over the unweighted average). Missing values EL 2003-05, 2011-12 and 2014, CY, MT 2004- 2005, HU, HR 2004 to 2011 LT 2005, 2011, ES 2005, 2012, HU 2006-2007, PL, SI and SE 2004, UK since 2009.

Source: DG EMPL, LMP

[Click here to download chart.](#)

The coverage of ALMPs varies a lot among Member States. In the mid-2000s it ranged from negligible levels to nearly full coverage. Since then coverage levels have fallen on average in Europe (and the Euro area), especially since 2009 (Chart 1.24). The reduction was generally seen in Member States with relatively high coverage (such as Spain, Luxembourg, Denmark or France), while coverage did not rise significantly in Member States with low initial

Chart 1.24: Coverage of ALMPs in EU and EA by Member State (2006-2014)

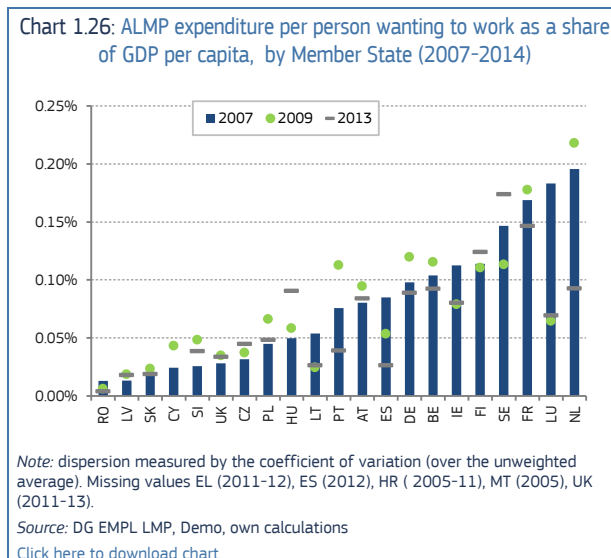
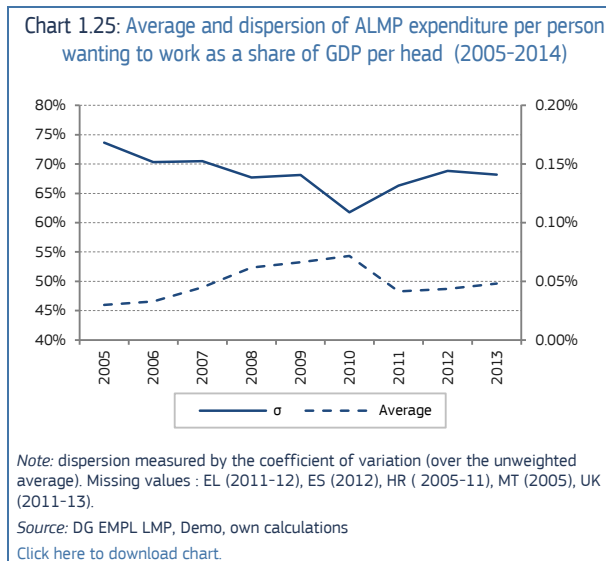


Source: DG EMPL, LMP

[Click here to download chart.](#)

coverage levels. As a consequence, the dispersion of ALMP coverage declined slightly over the period (**Chart 1.23**).

After generally increasing in the first phase of the crisis, ALMP expenditure per person wanting to work declined afterwards, while the divergence between Member States slightly increased (**Chart 1.25**). The decline was generally seen in Member States with relatively initial high levels (such as France or the Netherlands), but also in some closer to the average (such as Spain, Ireland and Portugal), while expenditure increased sometimes significantly in Member States with low initial coverage levels.

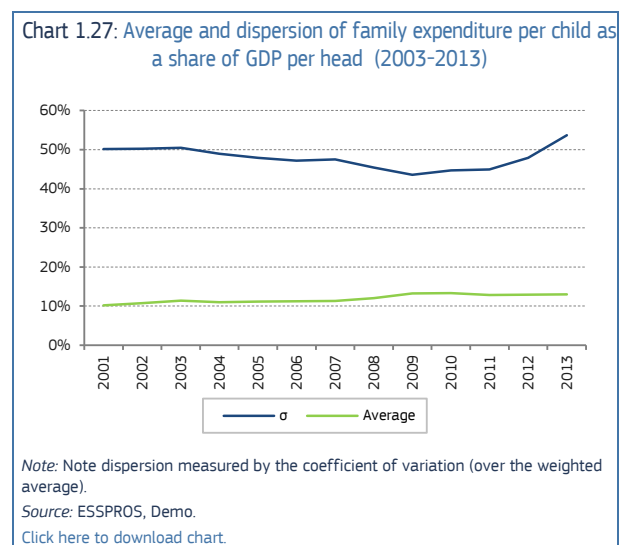


2.2.3. Childcare and family expenditure

The participation of mothers in the labour market tends to be higher where there is widespread provision and extensive use of childcare services, as well as availability of part-time work. Conversely, it tends to be lower where there is a wide gender pay gap and low general spending on family benefits. Higher and

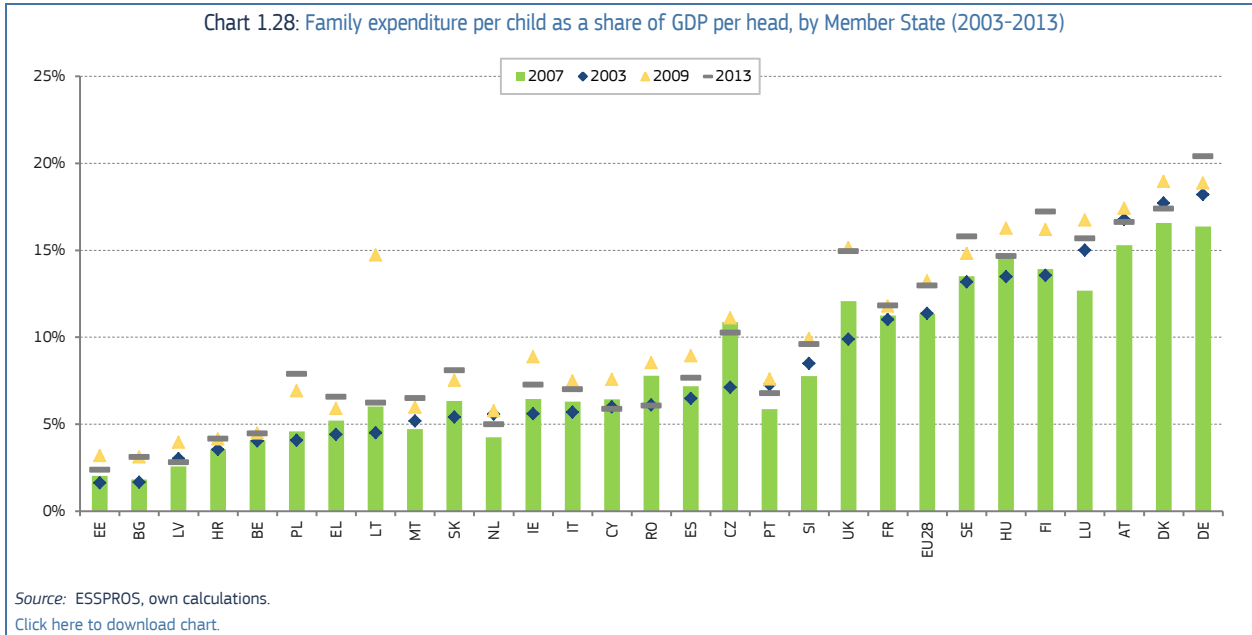
more equally distributed family benefits also tend to reduce poverty rates ⁽⁸⁰⁾.

Family expenditure dynamics since the crisis have been mainly driven by changes in the average expenditure per potential beneficiary aged under 18. The acceleration in expenditure growth in 2009 was strong, in particular in the euro area, reflecting the price indexation mechanisms usually attached to these benefits. In 2011 and 2012, expenditure slowed down more than the standard movement of indexation mechanisms would imply. Reductions on this scale would probably not have been needed in 2011 and 2012 if the indexation mechanism of family benefits had been smoothed over the cycle, while the smoothing of the indexation mechanisms of other benefits such as pensions could have left more room for other types of benefits such as family benefits.



Member States' expenditure per child (as measured by average family expenditure per child as a share of GDP per head) converged until 2009 but diverged with the economic crisis, in particular in 2012 and 2013 (**Chart 1.27**). Average family expenditure per child varied very significantly across Member States, from around 5% of GDP per head in Estonia, Bulgaria, Latvia to around 15% or more in Luxembourg, Austria, Denmark and Germany (see **Chart 1.28**). Since 2009, average family expenditure per child has increased mostly in Member States where it was already relatively high (such as Finland, Luxembourg, Austria, Germany, Denmark) and tended to decline in Member States where it was in lower than average (such as Portugal, Romania, Cyprus, Ireland).

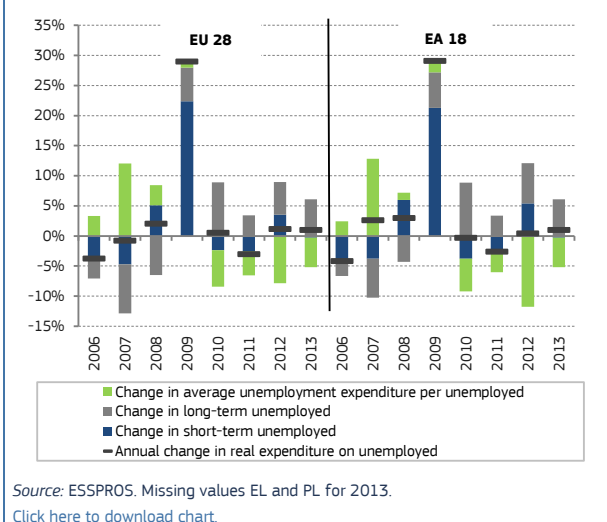
⁽⁸⁰⁾ Therefore, while the general level of benefits is important, so is their redistributive impact. See ESDE 2014, chapter III.2.



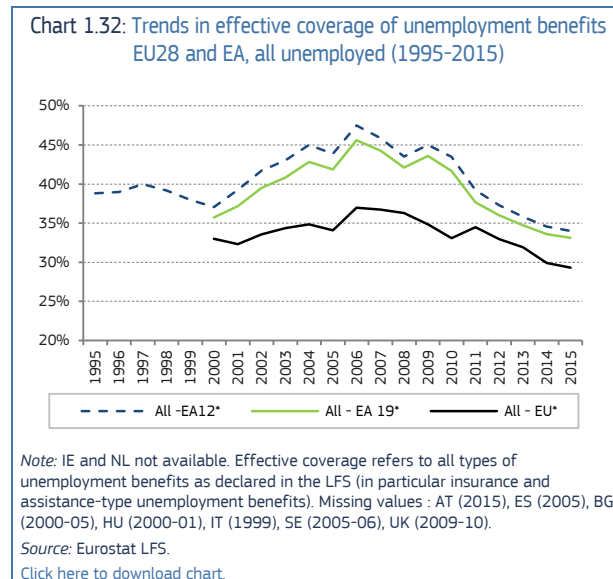
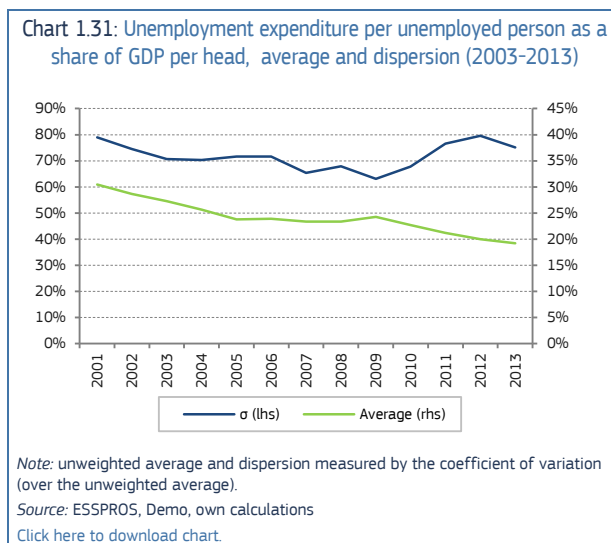
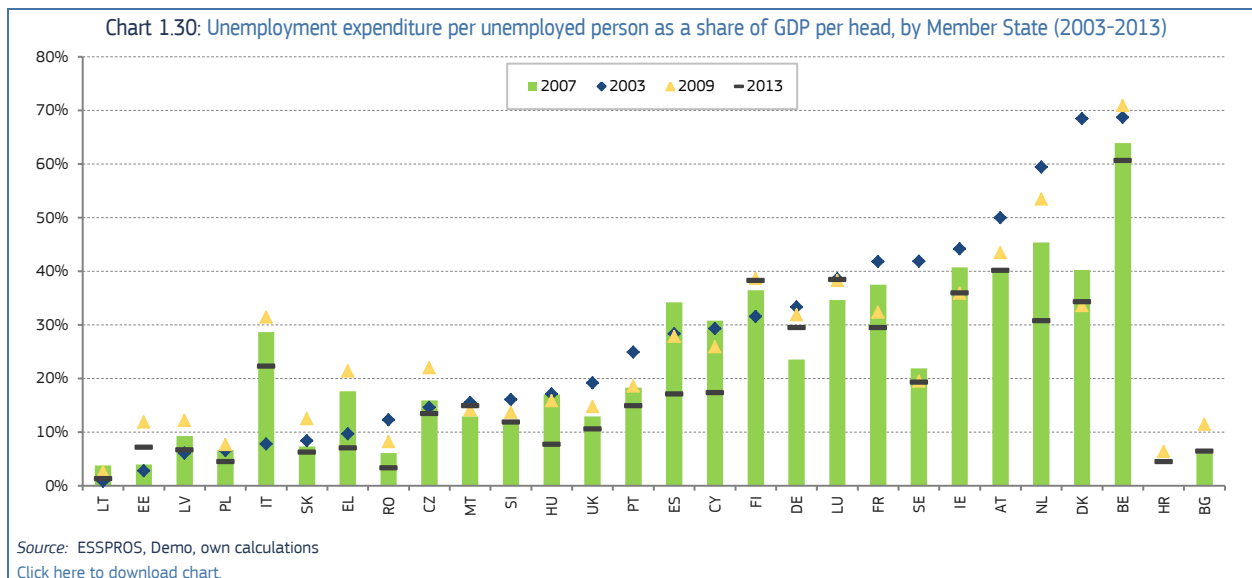
2.2.4. Unemployment expenditure per unemployed person

Since 2010, unemployment expenditure has broadly stabilised, while unemployment continued to increase. This contrasts with the strong growth in unemployment expenditure recorded in 2009, which essentially reflected increases in the number of unemployed people (see **Chart 1.29**). Average unemployment expenditure per unemployed person declined by around 10% a year in the 3 years after the crisis. This reflected a number of factors, including a reduction in or loss of entitlement to unemployment benefits after a prolonged period of unemployment. In most Member States the duration of unemployment (insurance) benefits is less than one year so the long-term unemployed (whose share of total unemployment has increased) are generally not eligible for insurance unemployment benefits, but may eventually qualify for lower assistance unemployment benefits or social assistance benefits.

Chart 1.29: Decomposition of unemployment expenditure real growth (2006-2013) in the EU28 and EA18

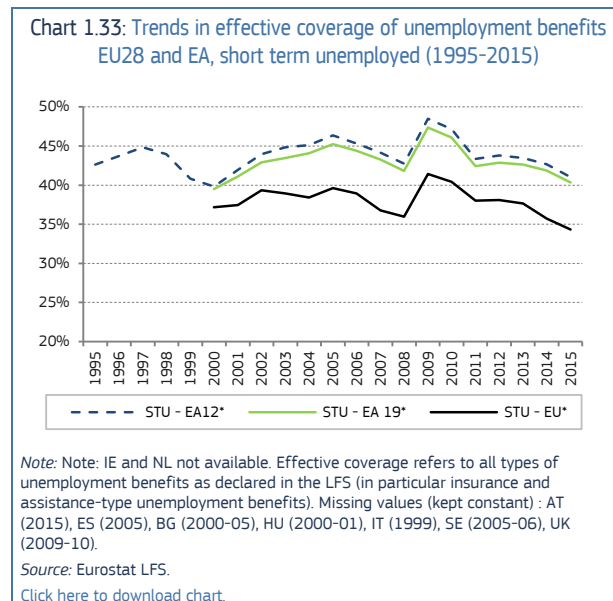


There was some convergence in Member States' expenditure per unemployed person until 2009 (as measured by the average unemployment expenditure per unemployed as a share of GDP per capita). Then the economic crisis brought about significant divergence until 2012, which was slightly reversed in 2013 (**Chart 1.31**). Average unemployment expenditure per unemployed person over the period 2007-13 varied very significantly across Member States, from less than 5% of GDP per head (in Lithuania, Estonia, Croatia, Romania) to around 60% in Belgium (see **Chart 1.30**). At the same time, average unemployment expenditure per unemployed person declined most strongly in Spain and the Netherlands and Cyprus (around 15 percentage points), but also declined in Hungary, Greece, France, Italy, Denmark and Ireland by between 5 and 10 percentage points).



2.2.5. Effectiveness of benefit coverage

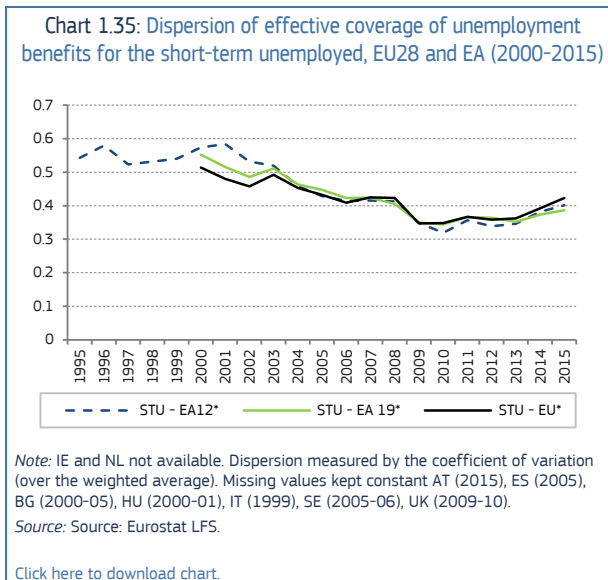
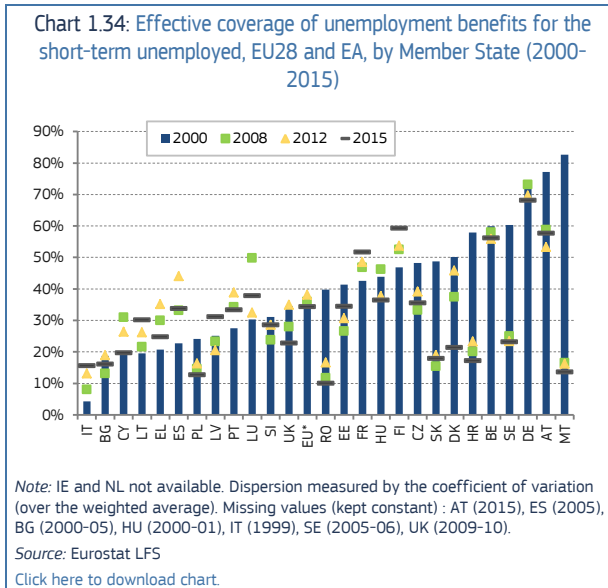
The ability of unemployment insurance schemes to stabilise an economy depends largely on their design, in particular in terms of eligibility conditions and duration. The average (effective) coverage of unemployment benefits has declined since 2009 (Chart 1.32). This decline also reflects an increase in the proportion of long-term unemployed, who are often not eligible for unemployment benefits. For the short-term unemployed, the decline in effective coverage was not as marked, and it occurred mostly in 2014-15 (Chart 1.33). In the initial phase of the crisis, effective coverage increased, probably reflecting the large number of newly unemployed people who were entitled to receive benefits.



The coverage of unemployment benefits for the short-term unemployed impacts directly on the stabilisation of household incomes when unemployment increases. As the maximum duration of unemployment benefits

is often lower than 12 months⁽⁸¹⁾, the coverage of short-term unemployed gives a better indication of the impact of unemployment insurance benefits.

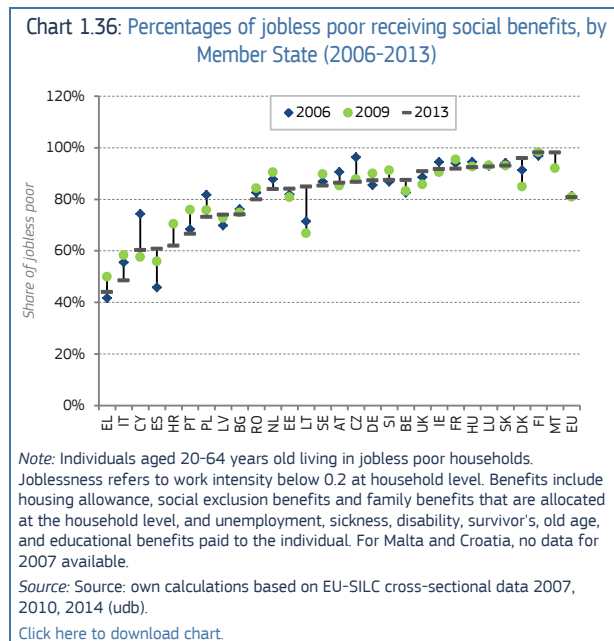
Overall, from 2000 until 2012 there was a converging trend. Before the crisis this mostly reflected some decline in countries with higher coverage levels (such as Malta, Sweden, Austria, Croatia or Slovakia), while from 2008-12 this mostly reflected increases in countries with low coverage (such as Italy, Bulgaria, Greece and Spain). However, the slight increase in dispersion since 2012 comes from a greater-than-average decline in countries with low coverage (such as Bulgaria, Cyprus, Greece, Spain or Poland).



For social protection systems to reduce poverty effectively, it is important that those in need have access to benefits (the focus here is on poor jobless households). This can be measured by the proportion of jobless poor receiving social transfers such as unemployment, disability, sickness, family, housing,

social assistance and educational benefits (old age and survivor's benefits are excluded because the focus is on working age adults only).

In the EU the vast majority of individuals living in jobless poor households (81%) receive some benefits. The share is significantly lower than the EU average in Greece and Italy, where it has further decreased from the level of 2009 by 6 and 10 percentage points (ppts) respectively⁽⁸²⁾. Receipt of benefits has also fallen in Croatia (by 8 pp.) and Portugal (9 ppts), but has significantly increased in Denmark (11 ppts) and Lithuania (18 ppts) (Chart 1.36). In terms of convergence (using the measure of coefficient of variation), there has been hardly any change between 2006 and 2013.



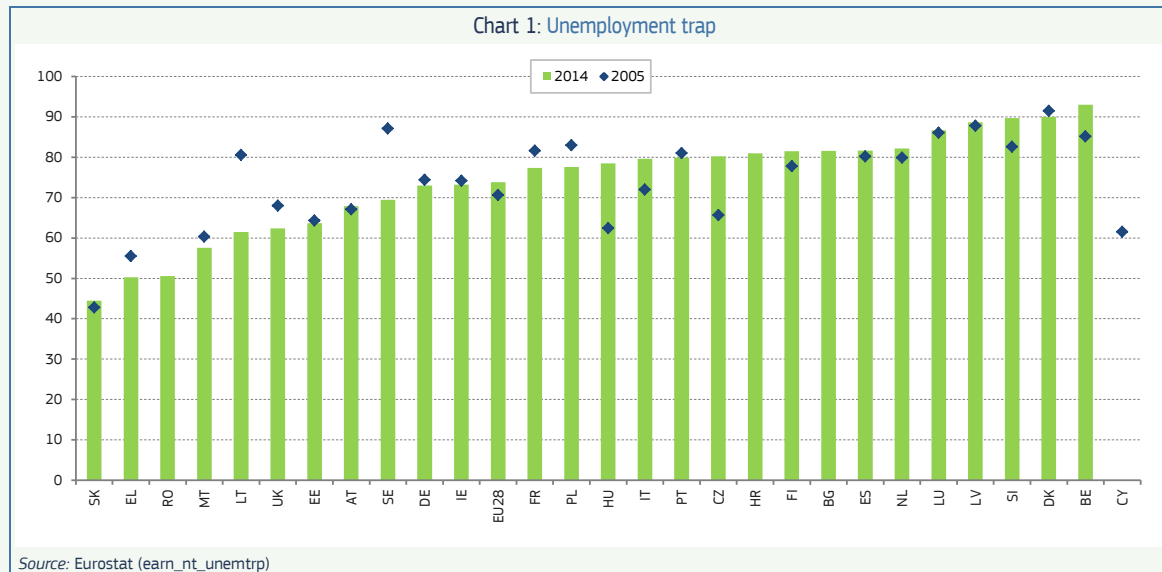
⁽⁸²⁾ Reflecting in particular the absence of minimum income benefits in those countries, see section 2.3.3.

⁽⁸¹⁾ < to be added see for instance Palme and al. (2012) >

Box 1.4: Trends in unemployment traps

Unemployment trap indicators measure the marginal effective tax rate on labour, namely the extent to which the increase in gross earnings when moving from unemployment into work is reduced as a result of income taxes, social security contributions and the withdrawal of benefits. The indicator of the unemployment trap refers to the situation of single persons without children, earning 67% of the average wage when in work. Returning to employment after being unemployed triggers the loss of unemployment benefits and can imply higher tax and social security contributions. This may then discourage the unemployed from returning to employment, which in turn may erode their skills and employability and reduce their long-term employment prospects (see box 3).

For the EU as a whole, about 74% of additional gross income is taxed away following a transition from unemployment to employment for a single person without children earning 67% of the average wage. Nevertheless, there are some important differences across Member States (see **Chart 1**). The highest unemployment trap is to be found in Belgium, Slovenia and Denmark, almost 15 points above the EU average; these countries are among the Member States with the highest replacement rates (see **Chart 1**).



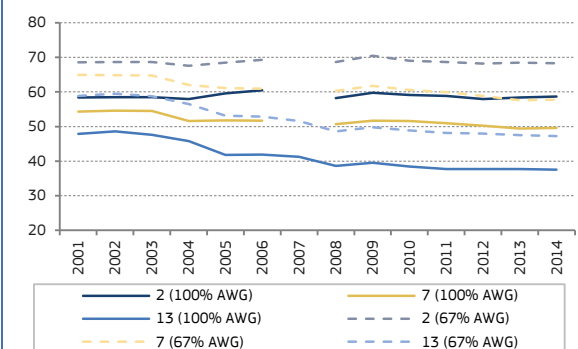
2.2.6. Replacement rates provided by benefits

In addition to trends in benefit coverage and expenditure per potential beneficiary, the analysis of trends in individual entitlements (as measured by net replacement rates for some typical household situations) can be completed by information sources which provide detailed policy descriptions (such the OECD Tax-benefit model).

Unemployment benefits

Unemployment benefit schemes tend to vary across Member States. The main differences relate to benefit durations, replacement rates and eligibility conditions. Benefit duration can increase with the length of the prior work history. Unemployment benefit replacement rates represent the proportion of previous income from work that is maintained after job loss and may depend on former wage levels, benefit duration and levels of financial work incentives. Eligibility depends on previous work record and contributions paid. Strict eligibility conditions mean that fewer unemployed people are entitled to benefits, and thus lower coverage. As entitlement to unemployment insurance requires a minimum work record, individuals with short employment records and less-than-continuous work histories are often ineligible.

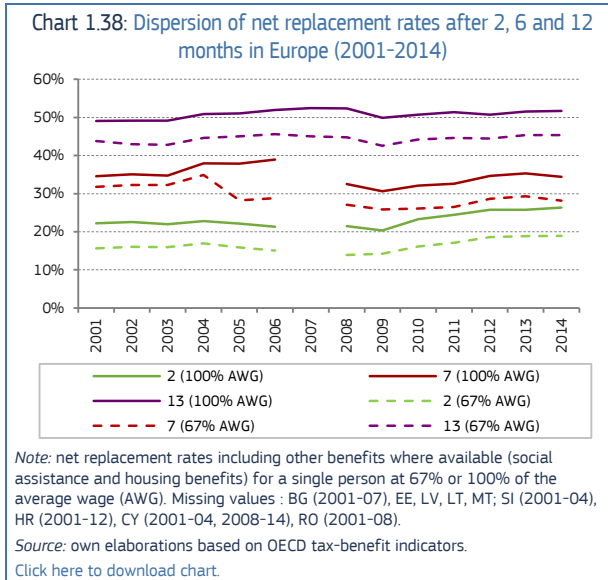
Chart 1.37: Average net replacement rates after 2, 6 and 12 months in Europe (2001-2014)



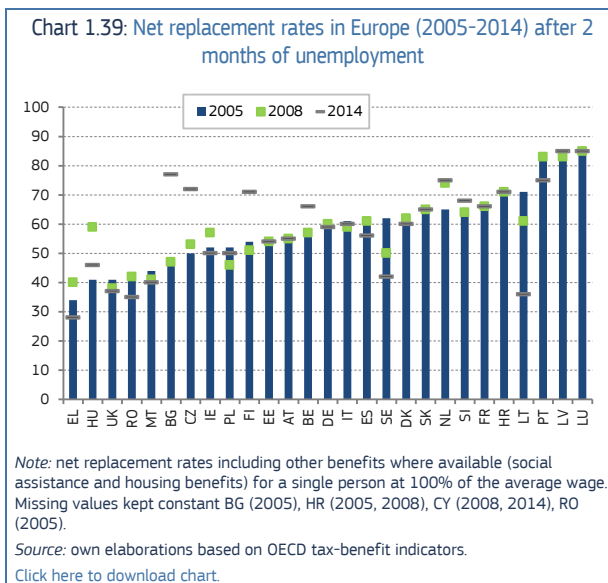
Note: net replacement rates including other benefits where available (social assistance and housing benefits) for a single person at 67% or 100% of the average wage (AWG). Missing values : BG (2001-07), EE, LV, LT, MT, SI (2001-04), HR (2001-12), CY (2001-04, 2008-14), RO (2001-08).

Source: own elaborations based on OECD tax-benefit indicators.

[Click here to download chart.](#)



Replacement rates have generally been declining, though replacement rates 2 or 7 months into unemployment spells have remained broadly stable since the beginning of the crisis. This overall stability was however accompanied by some decline of replacement rates for longer unemployment durations, and slight divergence since 2008 particularly for shorter unemployment spells and in countries with lower initial levels (Chart 1.39, see Box 1.4 for trends in unemployment traps).



Minimum income benefits

Minimum income (MI) benefits (commonly described as "the income of last resort") refer to the guaranteed minimum incomes that aim at ensuring a minimum standard for those without other financial means (i.e. without sufficient income from work, other benefits or capital income and private transfers). In addition to being among the most important policy tools to combat poverty, minimum income schemes are part of comprehensive active inclusion strategies that

promote the social and labour market inclusion of their beneficiaries ⁽⁸³⁾.

National minimum income schemes currently exist in all EU Member States, except Italy (which still has varied regional provisions) and Greece (a national roll-out of the scheme is on the way). Despite shared overall objectives, the characteristics of the minimum incomes vary a lot across Member States. This reflects their entrenchment in different welfare regimes, which in turn influences needs for and levels of the MI benefits. Still, after taking account of the wider context of tax-benefit systems, MI support remain heterogeneous across the Member States, in particular as regards eligibility, take-up, benefit levels or activity and work requirements (see e.g. Marchal and Van Mechelen, 2014 on the variation in active labour market policies across the Member States).

Existing evidence suggests that the architecture of the minimum income schemes has not changed much over the last decade, but also points to limited "converging levels of minimum income protection" (Van Mechelen and Marchal, 2013). For the period 2000 to 2012, the latter study finds fairly stable dispersion values in benefit levels across the EU, though some catching-up was noted during the pre-crisis period in Romania, Ireland or Portugal.

A few other studies report on increasing minimum income (absolute) benefit levels (partially linked to the adoption of the Lisbon and of the Europe 2020 Strategies), though with a diverging trend across Member States (e.g. Wang et al., 2015; Wand and Fliet, 2014). In contrast, replacement rates (i.e. minimum incomes over average wages) were observed to decline. This points to a potential decline in relative living standards among the MI beneficiaries, when compared to the rest of the society.

Trends in the adequacy of minimum income protection for the working age population across the EU and the Euro zone from 2005 to 2014 can be assessed on the basis of net incomes ⁽⁸⁴⁾ received by the MI recipients and their families. This allows account to be taken of the diverse architecture of tax-benefit provisions across Member States.

Over the period 2005-2015, the real ⁽⁸⁵⁾ values of net minimum incomes to their recipients deteriorated in a few countries; slightly improved (i.e. increased less than 10 percentage points over the monitored 10 year period) in most countries; and improved significantly in a few Member States (Latvia, Estonia, Czech Republic, Slovakia and Lithuania, see Chart 1.40). Changes in minimum income benefit levels were not uniform for

⁽⁸³⁾ (See for instance the European Commission's Social Investment Package (SIP), 2013; the EC Recommendation on Active Inclusion, 2008)

⁽⁸⁴⁾ Net incomes refer to gross earnings (i.e. gross wages) plus gross cash benefits minus income taxes and individual social security contributions, with variation of income sources subject to work specific situations.

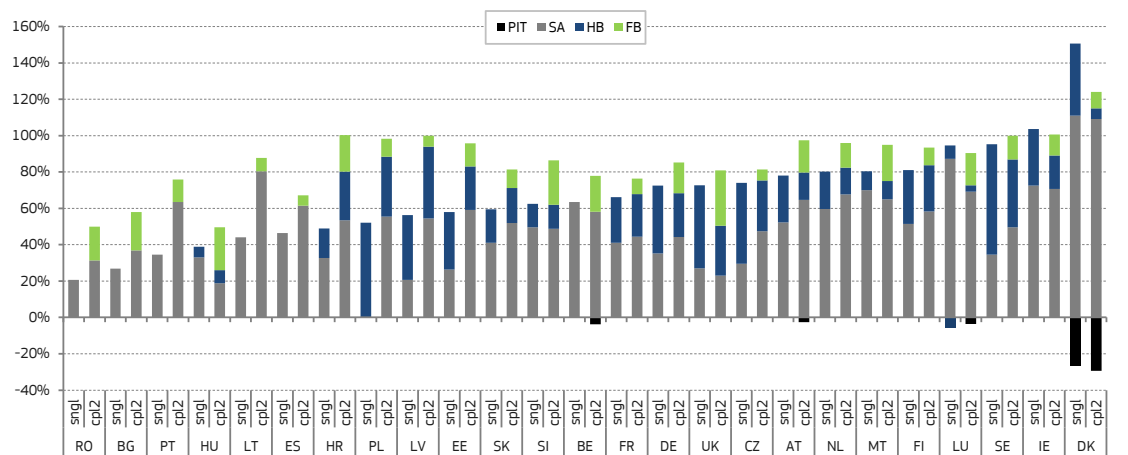
⁽⁸⁵⁾ Adjusted for inflation based on HICP.

Box 1.5: Adequacy levels are highly diverse across countries and household types

Changes in real minimum income can be heterogeneous across households due to different policies concerning the diverse income sources available to the MI recipients. Therefore, changes observed could be due to developments across various tax and benefit policy domains, rather than a change in a single policy.

The composition of net incomes varies across countries for a single person and a household of two non-working adults with two children (see chart below). Minimum income benefits account for the largest share of net incomes in most countries, though the influence of different MI architectures is well portrayed by such country examples as Romania, Bulgaria, Poland, the Czech Republic, the UK or Denmark. Housing benefits are not available to MI recipients in Romania or Bulgaria, but are the only source of income in Poland and account for more than half of the net incomes in the Czech Republic and the UK. Transfers to children are a much more significant source of income for the UK beneficiaries than for their Czech counterparts. In Denmark, minimum income protection is not only an integral part of the social transfers system, but also has important links to taxes and social security contributions. Adequacy of income support is quite varied, not only across countries but also across household types within countries, as shown in the chart below. Overall, families with children have higher income protection levels than single people, but this is not necessarily due to the complementary receipt of family benefits. For example, in Lithuania single persons are entitled to almost twice lower social assistance levels; relatively little more is given to families of two non-working adults with two children claiming the income support provided by family benefits. In Slovenia or Belgium, on the other hand, similarly generous levels of social assistance are available to single persons and families with children, but the net incomes of families with children are boosted considerably by the receipt of family benefits.

Chart 1: Composition of net incomes of MI recipients as % of net incomes of low wage earners (2014)



Note: FB – family benefits; HB – housing benefits; SA – social assistance benefits; PIT – personal income taxation and social security contributions; 'sngl' refers to single person household; 'cpl2' refers to a family consisting of two non-working adults and two children; low wage refers to 40% of average wage; the listed net income categories include various income components applicable in the country; special rules (e.g. social assistance for non-rent-related housing costs, such as water and electricity) are not explicitly covered; assumption is made that the level of rent for all household types is 20% of the gross earnings of an average worker; more details on the country-specific assumptions are available on www.oecd.org/els/social/workincents.

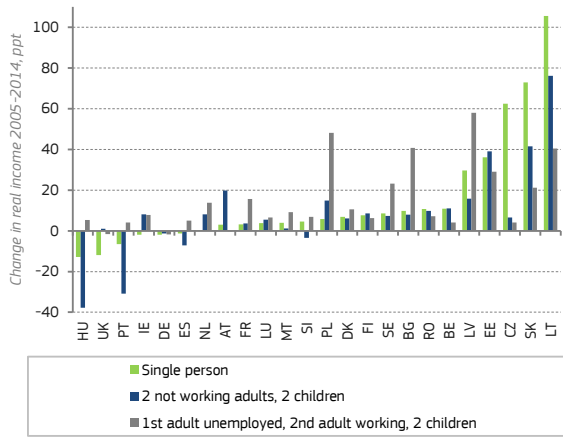
Source: own elaborations based on OECD tax-benefit indicators

different household types, reflecting the interplay with other benefits - welfare benefits, including those due to presence of children, in-work benefits, and the influence of at least one earner being employed at the low wage, see Box 1.5).

For a single person, net minimum incomes lost real value during the period 2005-2014 only in a few countries (Hungary, the UK and Portugal; in Hungary and Portugal, however, a larger reduction took place for families consisting of two non-working adults and two children). In contrast, net incomes actually rose or remained stable in all Member States for families with two children (where one of the two adults was employed at the low wage, i.e. 67% of average wage, the other adult being unemployed). Larger relative increases (more than 40 percentage points) benefited single persons rather than families with children in Lithuania, Slovakia and the Czech Republic.

Given different trends in national living standards, it is important also to account for overall incomes developments in the national context. This can be done either by reviewing trends of minimum income benefits in relation to the national poverty line, or in relation to the income of a low wage earner. While the former relates to the poverty reduction objectives of the MI support and to overall incomes in the country, the latter illustrates more specifically the interlinkages with other benefits available for the working age population.

Chart 1.40: Net incomes of MI recipients, real change 2005 – 2014



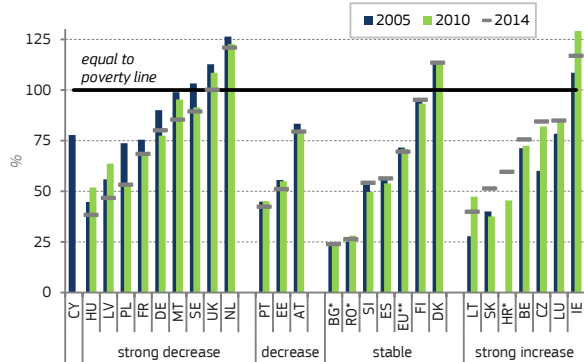
Note: here and further on the following modelling parameters apply: Greece and Italy have no national minimum income schemes for the time considered; no OECD tax-benefit model calculations are available after 2007 on Cyprus; no information is available for Croatia before 2013; where benefit rules are not determined on a national level but vary by region or municipality, results refer to a "typical" case (e.g. the capital); net incomes account for all relevant cash benefits (social assistance, family benefits, housing-related cash support) and are net of any income taxes and social security contributions; real changes in equivalised net incomes (i.e. using modified OECD equivalence scale) account for inflation (HICP); household composition for the 2nd working adult corresponds to 67% of average gross wage; assumption is made that two children are four and six years old; countries are sorted in the ascending order of real changes for single person households

Source: own elaborations based on OECD tax-benefit indicators.

Click here to download chart.

Overall, from 2005 to 2014, MI benefit levels decreased in the majority of Member States, with strong (more than 5 pts) reductions in Hungary, Latvia, Poland, France, Germany, Malta, Sweden, the UK and the Netherlands. The largest reduction in the EU took place in Poland, where MI support fell by more than 20 pts, to just above half of the poverty line in 2014.

Chart 1.41: Net incomes of MI recipients as% of poverty line- single person



Note: 2008 instead of 2005 indicators reported for Bulgaria and Romania and 2013 instead of 2010 for Croatia; ** - unweighted average for covered countries, excluding Cyprus; poverty line refers to the at-risk-of-poverty concept and is set at 60% of the national median equivalised disposable income, with reference year being income reference year rather than EU-SILC survey wave year, as EU-SILC 2015 survey wave results (i.e. 2014 incomes) were not yet available for all countries at the time of the analysis, poverty thresholds for countries with missing values were projected on the basis of income "nowcasting" estimations (Rastrigina, Leventi, Vujackov and Sutherland, 2016)

Source: own elaborations based on OECD tax-benefit indicators and EUROSTAT EU-SILC data [ilc_li01].

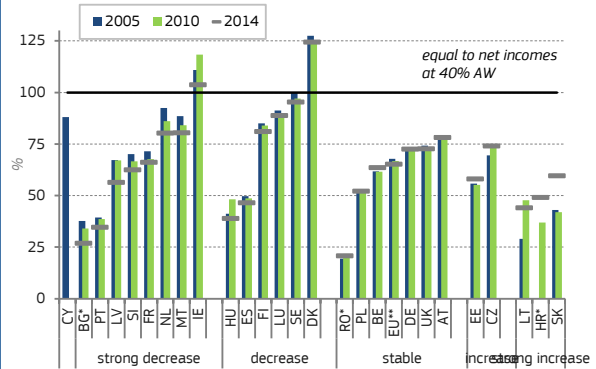
Click here to download chart.

On the other hand, strong rises in the relative adequacy of MIs were also observed, in Lithuania, Slovakia, Croatia, the Czech Republic, Belgium, Luxembourg and Ireland. For Lithuania, the Czech

Republic and Slovakia this corresponds to the observed sharp real increases in absolute net MI incomes. In Luxembourg and Ireland, real MI income levels were roughly stable, but moved closer to these countries' poverty thresholds because the values of the poverty thresholds had declined⁽⁸⁶⁾.

A similar picture of widely varied levels across the Member States and generally decreasing living standards emerges when assessing the value of the net incomes of MI recipients compared with the net incomes of low wage earners (i.e. those earning 40% of the average wage) (Chart 1.42)⁽⁸⁷⁾. The countries where net incomes of MI recipients compared most favourably with the net incomes of low wage earners in 2005 (Denmark, Ireland, Sweden, the Netherlands, Luxembourg or Finland) saw some decline by 2014, but declines also took place in other countries such as Portugal, Hungary and Bulgaria. In Bulgaria, not only are the net incomes of MI recipients relative to those of low wage earners among the lowest in Europe, but they have steadily reduced over the period 2005-2014.

Chart 1.42: Net incomes of MI recipients as a% of net incomes of low wage earners-single person



Note: 2008 instead of 2005 indicators reported for Bulgaria and Romania and 2013 instead of 2010 for Croatia; ** - unweighted average for covered countries, excluding Cyprus; low wage refers to 40% of average wage.

Source: Own elaborations based on OECD tax-benefit indicators.

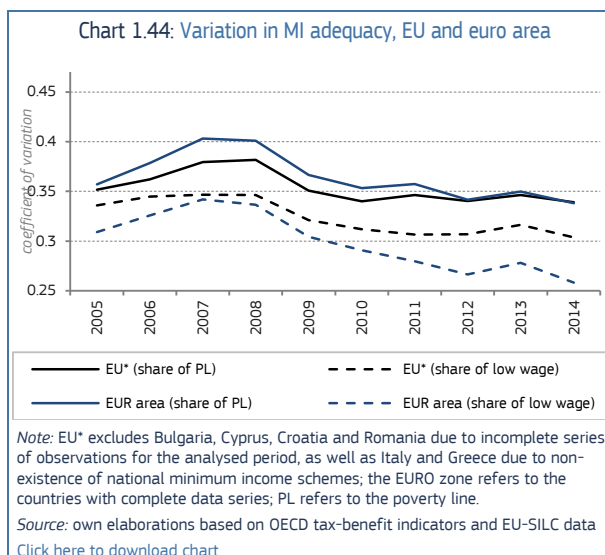
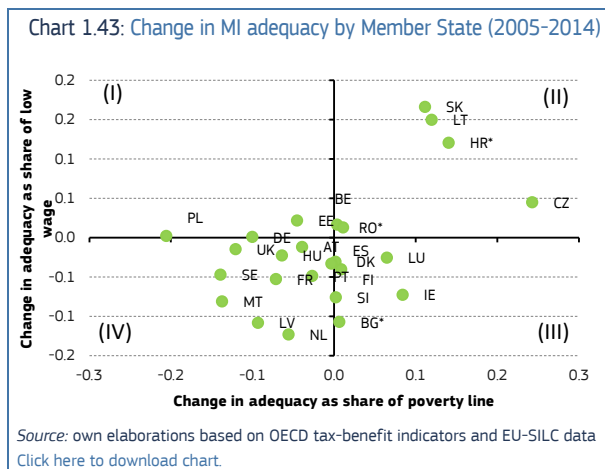
Click here to download chart.

All in all in most countries, the adequacy of MI support weakened over the decade, whether measured relative to the poverty line or to low wage incomes (group IV in Chart 1.43). Only a few countries have seen a significant increase (Slovakia, Lithuania, Croatia, group II in Chart 1.43). In the Czech Republic, the standard of living of the MI recipients increased in comparison with the poverty line, but a smaller increase was noted in comparison with the incomes of the working

⁽⁸⁶⁾ Since 2005 to 2014, real (adjusted for HICP) reductions in poverty thresholds were observed not only in Ireland and Luxembourg, but also in Cyprus, Greece and Italy; they remained broadly stable in Hungary, Spain, Portugal and the UK.

⁽⁸⁷⁾ It should be noted that at this wage level, people are entitled to a number of social benefits in some Member States (i.e. CZ, DK, FI, FR, HU, LU, MT, NL, SK, SI, SE, UK in 2014). Such entitlements varied across the studied years: e.g. an entitlement to housing benefits in 2005 in LU was replaced by more generous social assistance in 2014, whereas 2005 entitlements to housing benefits and social assistance in Germany were both scrapped in 2014.

population. Estonia stands out as about the only country where the living standard of the MI recipients rose in comparison to wage earners' situation. This could reflect a stronger rise in other-than-wage incomes in the period 2005-2014.



As a result of these developments, there has been a reduction in the dispersion of adequacy levels across the EU and in particular in the Euro area since 2008-09 (Chart 1.43). The Euro area variation in adequacy levels as a share of poverty thresholds was higher than the EU variation before 2008, but sharply reduced and stabilised at about the same dispersion level by 2014. In contrast, the dispersion of MI support as a proportion of low wage incomes was lower across the euro area than across the EU during the entire period of analysis. Furthermore, a sharper reduction in the dispersion level was noted for the Euro area by 2014. While overall this implies that the living standards of MI recipients in the euro area have converged, it also reflects declining living standards, especially in countries with traditionally higher adequacy levels though living standards of MI recipients have risen in a handful of countries with lower MI adequacy levels.

2.2.7. Convergence in employment and social policies: the overall picture

Overall, the evidence on convergence of investment on human capital over the last decade is mixed (see Table 1.1). On the positive side, skills structures have converged (as measured by educational attainment, see above), while the proportion of early school leavers both converged and reduced during the crisis. However, the coverage of ALMPs went down after 2009 as did the level of expenditure per person wanting to work, while the coverage of life-long learning remained broadly stable. Furthermore, while average family expenditure per child remained stable or increased slightly on average, expenditure levels converged before 2009 and diverged afterwards.

The evidence on convergence of support for the jobless is also mixed. Average unemployment expenditure per unemployed person declined in the crisis and only stabilised in 2013, in a context of significant divergence of support per unemployed person between Member States. As regards coverage, since the beginning of the crisis, effective coverage has been either slightly declining (unemployment benefits and ALMP) or constant (lifelong learning and access to benefit for the jobless poor). There have not been any significant trends in dispersion, except for effective unemployment benefit coverage, where convergence before the crisis has been reversed since.

Average benefit levels (unemployment benefit replacement rates and minimum income benefits) have generally been declining, though unemployment benefit replacement rates have remained broadly stable since the beginning of the crisis. This overall stability of average unemployment benefits was however accompanied by some divergence for longer unemployment durations. On the other hand, minimum benefits levels converged in the crisis, mostly reflecting declines in countries with initially higher levels.

2.3. Tax-benefit systems and their impact on household incomes

2.3.1. Impact of taxes and benefits on inequality

Countries with high income inequality generally also have tax-benefit systems with a low impact on inequality (Chart 1.45). However, some countries achieve relatively low levels of inequality despite the limited impact of the tax-benefit system (e.g. Slovakia compared to Nordic countries, Belgium and Slovenia).

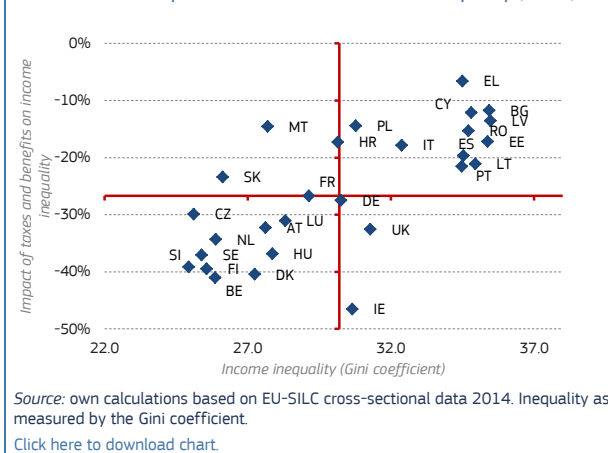
Table 1.1: Summary table of trends in the convergence of policies

	Overall trend		Dispersion	
	Before 2009	After 2009	Before 2009	After 2009
Active labour market policies (ALMPs) and lifelong learning (LLL)				
ALMP coverage	=	↓	=	↑
ALMP expenditure per person wanting to work	↑	↓	=	=
LLL	=	=	=	=
Coverage				
Unemployment benefits	=	↓	↓	↑
ALMP	=	↓	=	=
Any benefit (jobless poor)	=	=	=	=
Benefits individual replacement rates				
Unemployment benefits (UB)	↓	=	=	↑
Minimum income benefits	↓	↓	=	↓
Average expenditure				
UB expenditure per unemployed	=	↓	↓	↑
Family expenditure per child	=	=	↓	↑

Source: own elaboration.

[Click here to download table.](#)

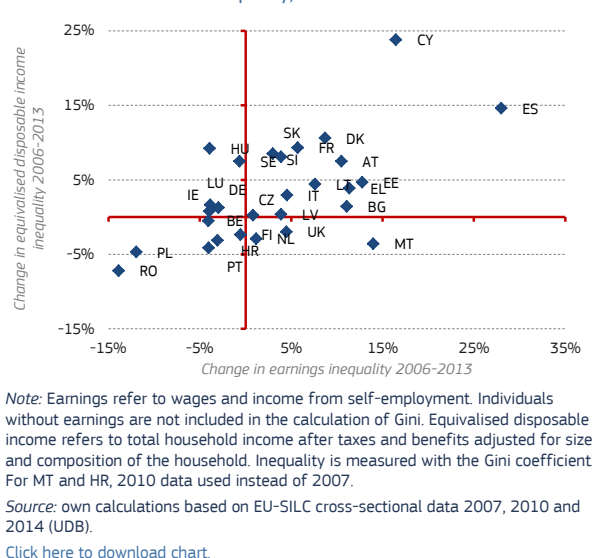
Chart 1.45: Impact of taxes and benefits on inequality (2013)



Changes in earnings inequality⁽⁸⁸⁾ did not translate equally into income inequality across countries (Chart 1.46). In a few countries, such as Hungary, Sweden, Slovakia and Slovenia, earnings inequality has hardly changed or declined since 2006, but income inequality has increased significantly. In other countries, especially Bulgaria, Spain, Estonia, Malta, Greece and Austria, there was a greater increase in earnings inequality than in income inequality, meaning that taxes and transfers were able to counterbalance the increasing earnings inequality.

⁽⁸⁸⁾ Includes wages and income from self-employment.

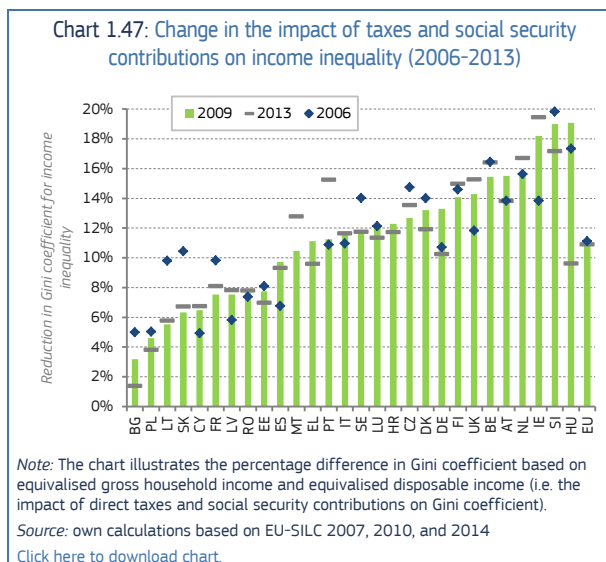
Chart 1.46: Change in earnings inequality and disposable income inequality, 2006-2013



The post-war decline in income inequality in Europe was connected not only to rapid economic growth, but also to the expansion of the welfare state and of progressive tax benefit systems (see for instance Atkinson 2014). The difference between earnings and income inequality is strongly influenced by the functioning of the tax-benefit system, which explains cross-country variation in income inequality to a great extent. The fact that market income inequality varies less across OECD countries than income inequality also highlights differences in how effectively countries' tax-benefit systems reduce income inequality⁽⁸⁹⁾.

⁽⁸⁹⁾ OECD (2011: 264, 267) argues that from the mid-1990s to 2005, the reduced redistributive capacity of tax-benefit systems was sometimes the main source of rising income inequality. Almost all countries devoted a declining share of social spending to non-elderly benefits, such as unemployment and family benefits. At the same time, less progressive tax

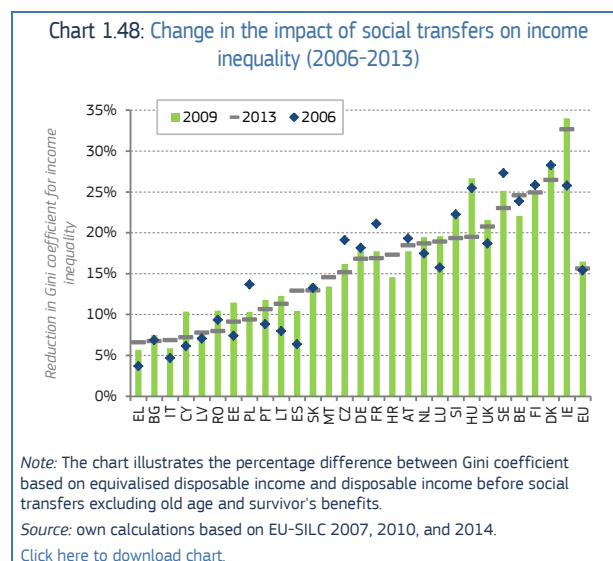
At the EU level, the impact of direct taxes and social security contributions on income inequality has remained broadly constant from 2006 (11.1%) to 2013 (10.9%) - see **Chart 1.47**⁽⁹⁰⁾. This impact is minimal and even falling in Bulgaria (where the top personal income tax level is the lowest in the EU and there has been a 10% flat-rate tax system since 2008). In Hungary, the introduction of a flat-rate tax system in 2011 also had a negative impact on inequality (the impact of the tax system fell from 19% in 2009 to 9.5% in 2013). Since 2009, changes have been relatively small, except in Portugal where the impact grew by 4.4 percentage points, attributable to the changes in progressivity of the personal income tax and solidarity surcharge. Bigger changes in the impact of taxes on inequality were recorded between 2006 and 2009, especially in Ireland (rise of 4.4 ppts), in Lithuania (drop of 4.3 ppts) and in Slovakia (drop of 4.1 ppts). However, chart 1.31 does not take into account any changes in indirect taxation, such as VAT, which is known to be regressive: increases in VAT are likely to hit the purchasing power of the people with lowest income hardest. Since 2009, VAT rates have been rising in most EU Member States ⁽⁹¹⁾.



The impact of social transfers (excluding old age and survivor's benefits) increased in the initial phase of the economic crisis, mainly because of the income-replacement effect of unemployment benefits, but in the latter phase of the crisis, since 2009 it has weakened (**Chart 1.48**). This reflects the rise in long-term unemployment - the long-term unemployed are less well covered and have lower benefits - as well as cuts in social transfers and their indexation. There is a lot of variation between countries in the inequality reduction impact of social transfers. In Ireland, Belgium, the United Kingdom and the Nordic countries, income inequality is reduced by a fifth through the benefit system. However, in Nordic countries

(especially Sweden) the inequality reduction impact has slightly weakened since 2006.

Since 2009, the impact of social transfers has generally declined. It increased only in seven countries (most significantly in Croatia by 2.7 pps). There has been an especially big drop in impact in Hungary (7.2 ppts), due to losses in non-means-tested benefits. The magnitude of the impact of social transfers is not only driven by the generosity in coverage and targeting of the benefits. With an economic recovery and a fall in unemployment and inactivity, the impact of social transfers can get smaller as fewer people depend on benefits. However, this is not likely to be the case here as unemployment continued to increase during this period (from 9.0% in 2009 to 11.0% in 2013 for 15 to 64 years old in EU28). Also, if income inequality increases mostly at the top of the earnings scale, social transfers are less likely to have an impact on it.



2.4.2 The distributional impact of changes in policies since 2008

Microsimulation models can be used to evaluate how public policies have affected income distribution, isolating the impact of policies from the impact of changes in the labour market or household structures. De Agostini et al. (2015), using data from Euromod⁽⁹²⁾, highlight that at the EU level, policy changes were poverty-reducing and had a positive effect on mean incomes in the first period of the economic crisis (2008-2011), while the opposite effect was generally observed in the later phase (2011-2014). During both periods policies were inequality-reducing at the EU level with some variation across countries. For example, in Bulgaria the effect was significantly inequality-reducing, especially in 2008-2011, while in Hungary changes in policies increased inequality (resulting from the flat-tax reform in 2011).

instruments were increased, such as social security contributions.

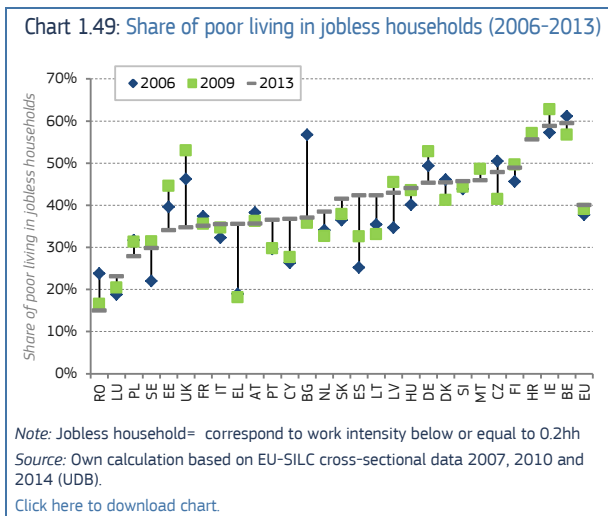
⁽⁹⁰⁾ For more information on the developments in taxation systems in the EU, see Eurostat (2014).

⁽⁹¹⁾ See Eurostat, 2014: 25.

⁽⁹²⁾ EUROMOD allows isolating policy effects such as reforms to the design of the tax-benefit system or changes to tax levels and benefit amounts (relative to price changes) from other factors shaping the income distribution, e.g. changes in population characteristics and market income distribution. For more details see De Agostini et al. (2015).

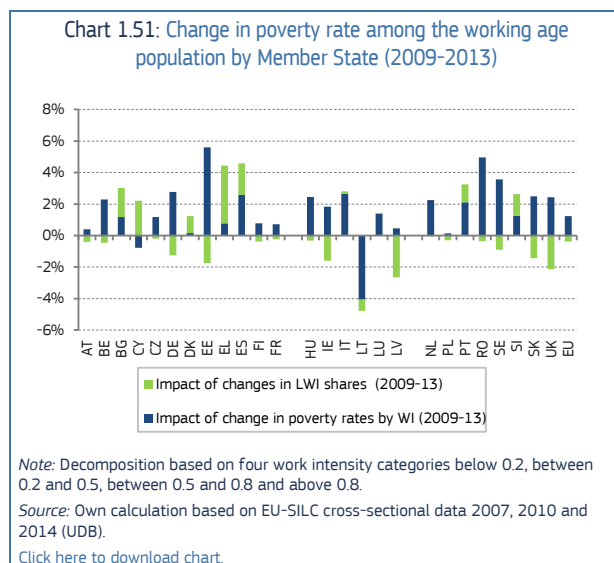
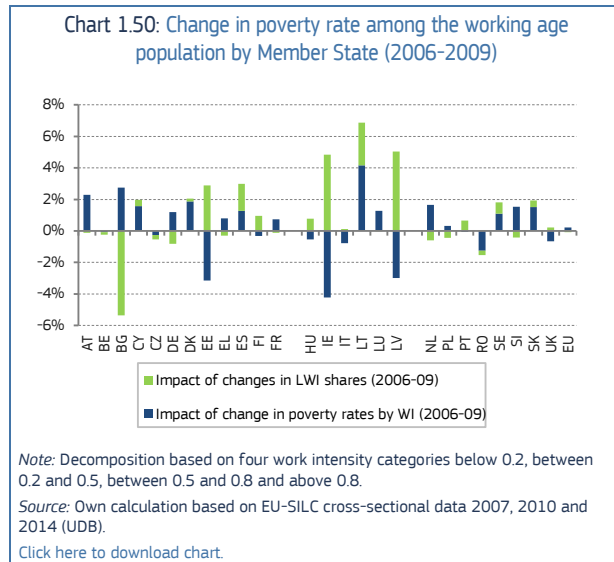
Policies have benefited the bottom income decile especially in Greece, Cyprus and Slovenia (while not offsetting the negative labour market outcomes in Greece); they had a negative effect on the bottom decile in Hungary, Latvia, and Portugal.

While in-work poverty has risen in most EU countries, the in-work poor still represent a minority of all working-age poor in all countries, although in Romania and Luxembourg their share is more than 40%⁽⁹³⁾. These changes largely reflect the changes in the overall number of people living in jobless households (Chart 1.49); this number has increased on average from 12.4% in 2007 to 13.6% in 2014, with much bigger increases in Greece, Spain, Lithuania, Latvia, and Portugal.



Over the period 2006-09 (Chart 1.50), changes in the poverty rate among the working age population have been mostly driven by shifts in households' work intensity, particularly in the Member States most affected by adverse labour market developments (Estonia, Spain, Ireland, Lithuania, Latvia, Cyprus) but also in some others (Austria, Germany, Denmark, France, the Netherlands, Sweden, Slovenia, Slovakia and UK). Over this period, such trends have sometimes been balanced by lower poverty rates at given work intensity.

⁽⁹³⁾ See Chapter 2 of this review for an in-depth analysis of the poverty risk among low-wage earners as well as in-work poverty in general.

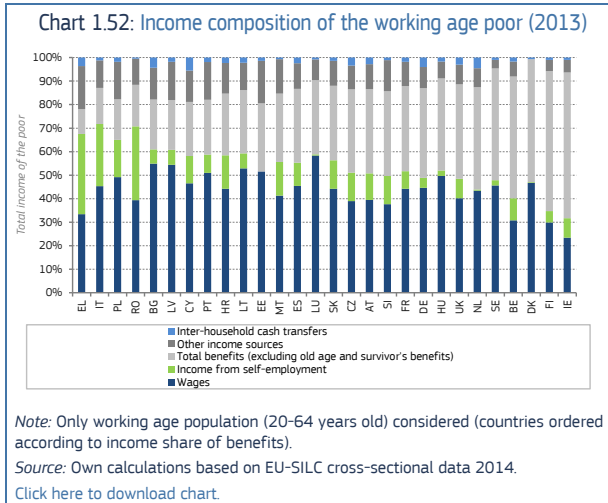


Over the 2009-13 period (Chart 1.51), there has been a slight reversal in the impact of shifts in the structure of work intensity following the start of the recovery (in particular in Germany, Estonia, Ireland, Latvia, Slovakia and the UK), but the declining work intensity of households still had a significant impact in some Member States (such as Greece, Spain). A stronger driver of poverty trends has nevertheless been the increase of poverty rates at any given work intensity of households (in particular in Estonia and Romania, but also in Belgium, Germany, Spain, Hungary, Italy, the Netherlands, Portugal, Sweden, Slovakia and the UK).

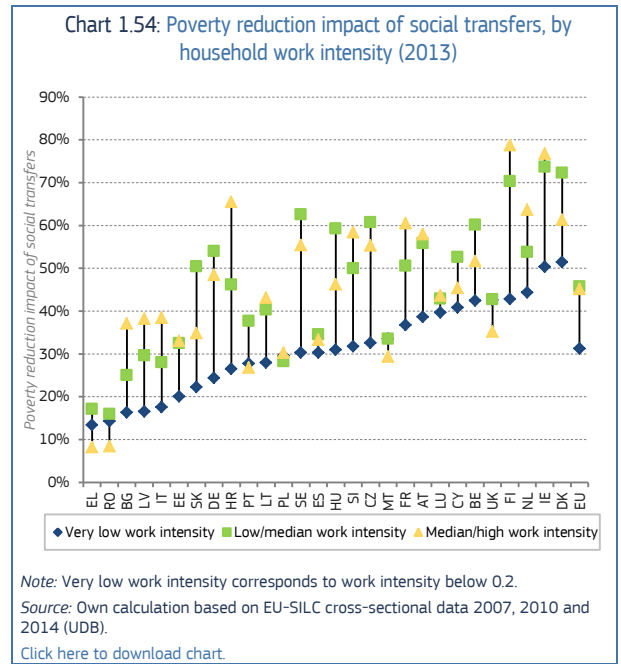
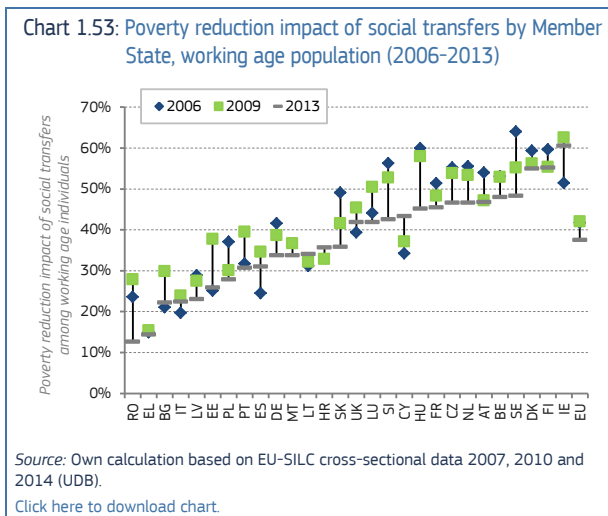
Overall, the poverty reduction impact of social transfers has declined.

On average, social transfers make up around a third of the incomes of the working age poor, with unemployment and family benefits being the most important sources. The weights of wages and social transfers in the income of the poor vary a lot across countries (Chart 1.52). In particular, in Finland and Ireland income from wages and self-employment represents only around a third of total (gross) income

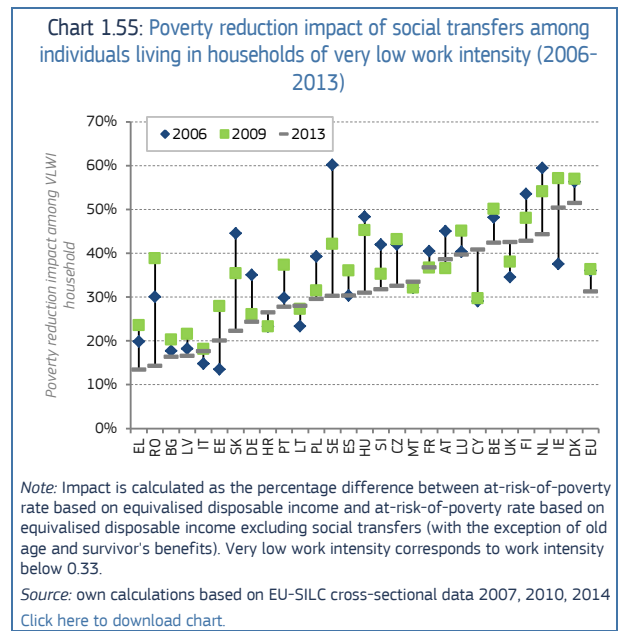
of working age adults living in poor households, while in Italy and Romania it is more than 70%.



Since 2007, the impact of social transfers on poverty reduction has declined in most countries (Chart 1.53), with the exception of Ireland where it was above average in 2007, and Cyprus and Spain (to a lesser extent also Italy, Lithuania, Bulgaria and the UK). However, such a trend can reflect changes in the composition of the working age population (with relatively more people with low work intensity) or different targeting of benefits or lower levels of benefits (see also Cantillon et al., 2015, Nelson, 2008). Poverty reduction varies widely across population groups, which can partly explain the decline in the overall poverty reduction impact (Chart 1.54) as the share of jobless households among the poor has increased. The poverty reduction impact among individuals living in jobless households is usually much lower than among other households (e.g. families with children, the exceptions being Romania, Poland and Spain).



However, while the proportion of poor people who live in households with work intensity lower than 33% has increased, the protection provided by taxes and benefits has also decreased (Chart 1.55).

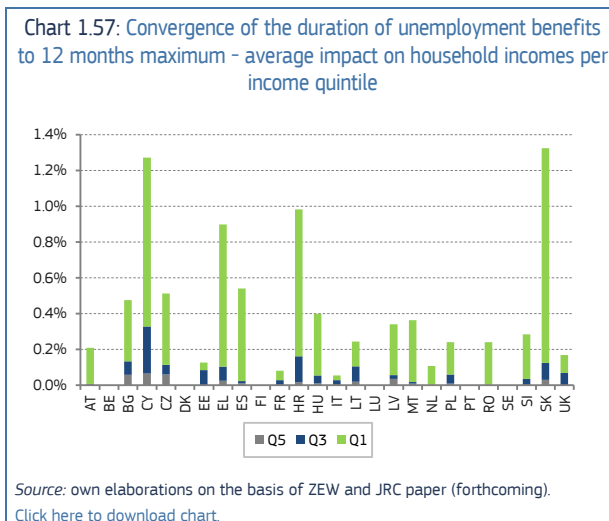
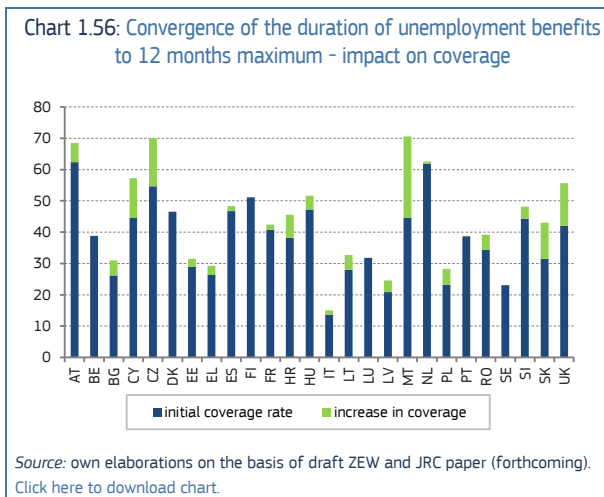


2.3.2. Impact of more convergence

Evidence of the impact of further convergence in key policy parameters across unemployment insurance systems can be provided by an analysis of micro data (94). An important caveat is that such analysis

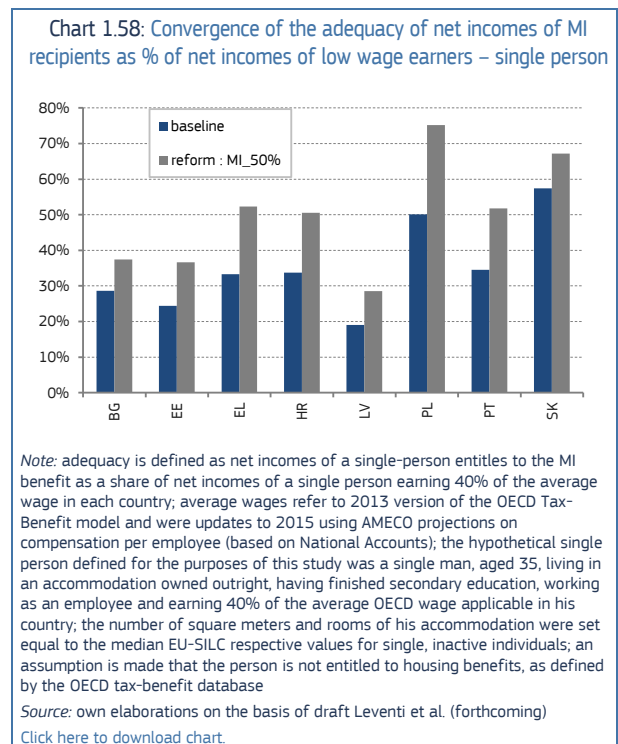
(94) See for instance a recent study by the ZEW and JRC, Barrios et al (2016, forthcoming). Reflecting changes in the rules of 2011 of unemployment insurance schemes and taking into account their interactions with the other parts of the tax-benefit systems. EU-SILC 2012 data is used as the underlying data source, with incomes and thus policy simulations reference year being 2011. Given that simulation of unemployment insurance requires information on previous earnings, which are not available in the cross-sectional EU-SILC, additional

imperfectly takes into account the fiscal implications of such convergence in policies, which is also dependent on the fiscal room that countries can have. Several parameters can be considered for the analysis, such as the minimum duration of unemployment benefits, the net replacement rate and the eligibility criteria. According to this study, a simultaneous adjustment towards a maximum unemployment benefit duration of 12 months would produce positive net income effects across quintiles in 21 out of the 26 countries analysed (in the rest no income effect would be noted because unemployment duration is already 12 months). The increase in coverage would generally range from 5 to 10 percentage points (or more in Austria, Cyprus, Czech Republic, Croatia, Malta, Slovakia and the UK). The impact on household incomes tends to be strongly focussed on the first quintile of the income distribution (with average increases reaching 1% of the average income of the first income quintile in Cyprus, Greece, Croatia and Slovakia).⁽⁹⁵⁾



The possible implications of some convergence of national minimum benefit systems can also be captured based on the analysis of micro data. An analysis from Leventi, Makovec, Rastrigina and Sutherland (forthcoming, 2016) focuses on eight EU countries (Bulgaria, Estonia, Greece, Croatia, Latvia, Poland, Portugal and Slovakia) regarded as having the least adequate MI schemes in the EU. In the case of Greece, the analysis simulates the rules of the MI pilot scheme introduced in 2014, so as better to understand the income implications of converting the pilot scheme into a national programme.

The study uses EUROMOD, the tax-benefit microsimulation model for the European Union, to simulate the rules of 2015 MI benefits and to take into account their interactions with other parts of the tax-benefit system (e.g. if MI benefits are taxable or included in a means test for another benefit)⁽⁹⁶⁾.

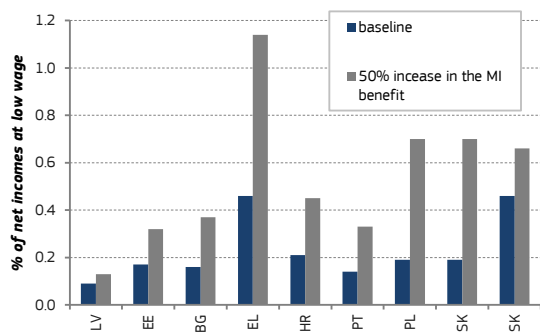


⁽⁹⁶⁾ As no timely survey micro-data on incomes is available, EU-SILC 2012 data is used as the underlying data source, with incomes updated from 2011 to 2015.

longitudinal EU-SILC elements were integrated into the analysis.

⁽⁹⁵⁾ According to this study, considering the impact of higher net incomes on consumption and the related increase in VAT would tend to reduce the net fiscal cost of the reforms (by up to 20%).

Chart 1.59: Convergence of the adequacy of net incomes of MI recipients as % of net incomes of low wage earners – costs as % of GDP



Note: adequacy is defined as net incomes of a single-person entitled to the MI benefit as a share of net incomes of a single person earning 40% of the OECD average wage in each country; average wages refer to 2013 version of the OECD Tax-Benefit model and were updated to 2015 using AMECO projections on compensation per employee (based on National Accounts); the hypothetical single person defined for the purposes of this study was a single man, aged 35, living in an accommodation owned outright, having finished secondary education, working as an employee and earning 40% of the average OECD wage applicable in his country; the number of square meters and rooms of his accommodation were set equal to the median EU-SILC respective values for single, inactive individuals; an assumption is made that the person is not entitled to housing benefits, as defined by the OECD tax-benefit database

Source: own elaborations on the basis of draft Leventi et al. (forthcoming)

[Click here to download chart.](#)

The study finds that if MI benefit levels increase (while keeping other policy settings unchanged) by for instance 50%, the net income adequacy of single MI recipients would increase by less than 50% in Bulgaria and Slovakia, mainly due to the compositional effects. In the Bulgarian case, this is due to the 50% increase being applied to the "standard" social assistance benefit, while the heating allowance – another means-tested benefit available to the MI recipients – remains unchanged under the simulation scenario. Similarly in the Slovakian case, the increase is applied to the "basic material needs benefit", whereas the levels of the other two available benefits⁽⁹⁷⁾ remain unchanged.

Overall, the size of the increase in net income adequacy of the MI recipients would be smallest in Bulgaria (rise by 9 ppts) and largest in Poland (rise by 25 ppts). The corresponding increases in budget costs (including net impact of direct tax and other benefits but not factoring in indirect taxes) would range from 0.04% of GDP in Latvia (from 0.09% of GDP in the baseline scenario to 0.13% of GDP in the reform scenario) to 0.68% of GDP in Greece (from 0.46% to 1.14% of GDP respectively).

Furthermore, notable poverty reduction effects among the MI beneficiaries would be observed in all countries (except Bulgaria, where simulations show a potential slight increase in the poverty rate reflecting the increase in the median income due to the reform). In Poland, poverty among the MI beneficiaries would undergo the largest drop among the selected countries (from 92% in the baseline scenario to 58% in the reform scenario discussed). The poverty gap would also be significantly reduced in all countries.

⁽⁹⁷⁾ Namely the housing allowance and activation allowance.

Overall, these distributional effects illustrate not only the expected outcomes of such reforms but also the poverty reduction effectiveness of the system in place. This analysis points to the possibility of implementing reforms which can both increase the adequacy of MI benefits, and improve the effectiveness of current benefit systems.

3. CONCLUSION

The 2008 crisis halted the overall convergence of economic and social performance in the EU, with in particular, employment and unemployment rates that diverged strongly as a result of the crisis, although this has recently begun to stabilise and indeed to reverse. All in all, while the gradual catching-up process appeared consistent with previous decades for the Member States that joined the EU since 2004, since the mid-2000s and the crisis in 2008-09, convergence patterns in the Euro area have come to a halt. The divergence largely reflected the adverse impact of the crisis on Southern and Eastern EA Member States.

In addition, following longer term trends, inequality has increased since 2007, while stabilising in the most recent years, but it has also tended to converge at these higher levels. Poverty rates have also increased on average and then stabilised and poverty and exclusion declined, while the dispersion of poverty rates has increased. Similarities have emerged in many countries as older people have seen their incomes become better protected and their poverty rates fall, while working age adults – in particular the youngest ones – have been hardest hit by the crisis.

Post 2008 divergence patterns reflected the exceptional size of the crisis, but also weaknesses in countries' policy choices and in the underlying architecture of the EMU. Labour markets and social protection policies and institutions across the EU performed very differently in the face of economic shocks. There was weak productivity growth in some Member States contributing to divergent nominal unit labour cost growth. Member States which had well-functioning social institutions before the crisis were less affected, absorbed shocks better and recovered more quickly. Such resilience will be key to longer-term convergence as it reduces the persistence of unemployment and prevents a temporary economic slowdown having a permanent negative impact on growth and jobs. Investment in education and skills, including high-quality childcare, is also key to sustainable growth.

The crisis also revealed clear weaknesses in the functioning of the EMU. The lack of a Banking Union was felt very starkly and has now been remedied, while mechanisms for better crisis prevention have been adopted (in particular the Macroeconomic Imbalance Procedure). The Euro area also lacked an appropriate degree of cross-border risk sharing (the capacity to smooth national shocks through assistance from less affected countries), with levels less than half

of those in Canada or the USA. This is, essentially, due to lower smoothing of cross-border capital markets (private risk sharing) and fiscal transfers (public risk sharing).

It has become increasingly clear that there is a need to look at factors that influence the depth and persistence of an economic downturn, as well as the capacity of national economies to adjust to shocks. This is particularly true in the Monetary Union, where adjustments are slower and macro-economic shocks may have a strong and lasting adverse impact on employment and social cohesion if adjustment is left solely to market mechanisms (especially when these are constrained by national institutions) with potential cross-border effects. Employment and social policies can help to strengthen the capacity of national economies to cope with economic shocks, particularly by making a stronger and quicker contribution to offsetting their damaging effects and by supporting longer term competitiveness.

Over the last decade, the evidence of convergence in policies, *inter alia* to deliver a stronger national capacity to adjust to shocks, is mixed. On the positive side, skills structures converged, while the proportion of early school leavers both converged and fell since 2009. However, the coverage of ALMPs went down after 2009 (and stabilised in 2014) as did the level of expenditure per person wanting to work, while the coverage of life-long learning remained broadly stable. Furthermore, while average family expenditure per child remained stable or increased slightly on average, expenditure levels converged before 2009 and diverged afterwards.

While social expenditure made a significant contribution to income stabilisation in 2009, its impact had become pro-cyclical by 2012. Average unemployment expenditure per unemployed person declined during the crisis, in a context where the level of the support per unemployed person varied significantly between Member States. However, other types of expenditure withstood the crisis much better, in particular pension expenditure. While the traditional indexation mechanisms seem to have operated as intended, they could have helped more to smooth more demand over the cycle.

Since the beginning of the crisis, the effective coverage of social protection systems has either been declining (in the case of unemployment benefits and ALMPs) or remained constant (in the case of lifelong learning and access to benefit for the jobless poor). Coverage diverged across countries only in the case of

unemployment benefits. Unemployment benefit replacement rates and minimum income generally declined slightly. Minimum benefit levels converged in the crisis, mostly reflecting reductions in countries with initially higher levels.

These trends had the effect of weakening the contribution social transfers could make to reducing poverty. This was partly due to longer unemployment spells and declining work intensity in households (with the longer-term unemployed no longer being entitled to unemployment benefits), but also partly due to the weakening of the capacity of tax and benefits systems to protect households incomes effectively in the context of a prolonged recession.

Reforms of employment and social protection systems in the Member States could make them more responsive to the economic cycle and thereby contribute to the stabilisation of aggregate demand in the face of a temporary shock (by providing adequate income support to households whose members are forced to work less), while strengthening convergence and mitigating the damaging effects of prolonged unemployment (particularly by providing active support to find a job). Many Member States could improve productivity and promote more stable employment, particularly by supporting human capital development (including the prevention of early school leaving and promotion of effective life-long learning) and providing the right incentives for employment growth (for example by providing adequate childcare).

Fostering reforms in the Member States that bring about upwards convergence of employment and social policies and outcomes is seen by many as a high priority at the European level. Without prejudging its final content, this underpins the proposal for the development of a European pillar of social rights, which covers such key policy areas as access to the labour market (including skills development, life-long learning and active support for employment), fair working conditions and adequate and sustainable social protection (including the design of the tax-benefit system and provision of services). Further convergence in such policies (also when combined with well-tailored increased adjustment capacity in terms of wage setting and labour market functioning) could strengthen the capacity of national economies and individuals to adjust to future shocks. In the longer term, a well-designed fiscal capacity at the level of the EMU could also help to boost resilience, therefore supporting upwards convergence, in particular when combined with other wider-ranging structural reforms.

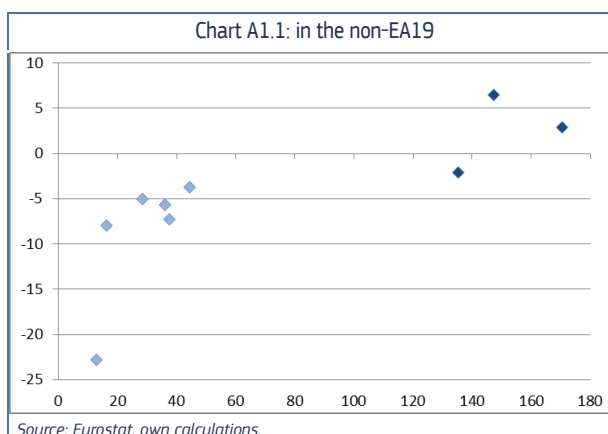
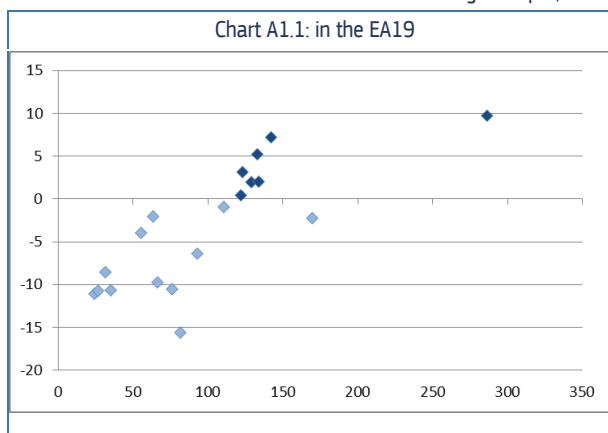
Annex: Country groupings used

In order to provide an overview of employment and social convergence trends in the EU as a whole (EU28), it is useful to reflect not only on overall developments, but also on changes in dispersion both within and between zones (see ESDE 2014). For this purpose, four groups of countries are considered, reflecting socio-economic and geographical proximity criteria as well as membership of the economic and monetary union (the Euro Area, or EA):

- EA19 Centre and North (BE, LU, NL, DE, FI, FR, AT), which represents around 36% of the EU28 population).
- EA19 South and East (EL, IE, PT, ES, IT, EE, LV, LT, CY, MT, SI and SK) which represents around 26% of the EU28 population).
- Non EA19 North (DK, SE, UK), which represents around 17% of the EU28 population).
- Non EA19 Centre and East (CZ, HU, PL, BG, HR, RO) which represents around 21% of the EU28 population).

These categorisations also correspond to a grouping where countries from the North and Center EA or North non EA (see in chart below points in dark blue) experienced higher levels of GDP per head prior to the crisis than average, as well as on average current account surpluses.

Cluster of charts. average GDPpc (index 100 EU) and CA positions (averages 2000-08)



References

- A. B. Atkinson and J. Micklewright (1991) and more recent Eugster, B. (2013), 'Effects of a higher replacement rate on unemployment durations, employment, and earnings', Economics Working Paper, Series 1320, University of St. Gallen, School of Economics and Political Science.
- Acemoglu, D., Johnson, S., Robinson, J. and Y. Thaicharoen (2003): Institutional causes, macroeconomic symptoms: volatility, crises and growth, *Journal of Monetary Economics*, 50, 49-123.
- Addison J. T. and Blackburn M. L. (2000), 'The effects of unemployment insurance on postunemployment earnings', *Labour Economics*, Vol. 7, No. 1, pp. 21–53.
- Addison J. T. and Blackburn M. L. (2000), 'The effects of unemployment insurance on postunemployment earnings', *Labour Economics*, Vol. 7, No. 1, pp. 21–53.
- Barrios, S., Buhlmann, F., Dolls, M., Ivaskaite-Tamosiune, V., Krolage, C., Maestri, V. (forthcoming), 'Convergence of unemployment benefit schemes in Europe: evidence at the micro level', JRC Working Paper on Taxation and Structural Reforms.
- Barro, R. and Sala-i-Martin, X., 'Convergence across states and regions', *Brookings Papers on Economic Activity*, Vol. 1, 1991, pp. 107–82.
- Belzil C. (2001), 'Unemployment Insurance and Subsequent Job Duration: Job Matching versus Unobserved Heterogeneity', *Journal of Applied Econometrics*, Vol. 16, No. 5, pp. 619–636.
- Berg, J. and Ostry, J. D. (2011), 'Inequality and Unsustainable Growth: Two Sides of the Same Coin?', IMF Staff discussion note, SDN/11/08.
- Brown A. J. G and Koettl J. (2012), 'Active labour market programs: employment gain or fiscal drain', Working paper Kiel institute for the World Economy, No. 1785.
- Buti, M. and A. Turrini (2015): Three waves of convergence. Can Eurozone countries start growing together again?, VoxEU.org, 17 April 2015.
- Caliendo M, Tatsiramos K. and Uhlenhorff A. (2012), 'Benefit duration, Unemployment Duration and Job Match Quality: A Regression-Discontinuity Approach', *Journal of Applied Econometrics*, Vol. 28, No.4, pp.604–627.
- Calvó-Armengol A., Jackson M. O. (2004), 'The effects of social networks on employment and inequality', *American Economic Review*, Vol. 94, No. 3.
- Calvó-Armengol A., Jackson M. O. (2004), 'The effects of social networks on employment and inequality', *American Economic Review*, Vol. 94, No. 3.
- Cantillon, B., Luigjes, C., Marchal, S. (2015) Decent incomes for the poor: which role for Europe? ImPROve Discussion Paper, No. 15/18. July 2015. Antwerp: Herman Deleeck Centre of Social Policy.
- Card D., Chetty R., and Weber A. (2006), 'Cash-on-Hand and Competing Models of Intertemporal Behavior: New Evidence from the Labor Market', National Bureau of Economic Research Working Paper 12639.
- Card D., Kluve J. and Weber A. (2010), 'Active Labour Market Policy Evaluations. A Meta-Analysis', *The Economic Journal*, 120, 452–477.
- Carling K., Edin P.A., Harkman A., Holmlund B. (1996) 'Unemployment duration, unemployment benefits, and labour market programmes in Sweden', *Journal of Public Economics*, Vol. 59(3): 313-334.
- Centeno M, Novo A.A. (2008) 'The Gains of Unemployment Insurance to Job Match Quality in the Portuguese Labour Market' *Economic Bulletin and Financial Stability Report Articles*, pp. 43–54.
- Centeno M. (2004), 'The Match Quality Gains from Unemployment Insurance', *The Journal of Human Resources*, Vol. 39, No. 3 (Summer, 2004), pp. 839–863.
- Chetty, R. 2008. "Moral hazard versus liquidity and optimal unemployment insurance", in *Journal of Political Economy*, Vol. 116, No. 2.
- Cingano, F. (2014), "Trends in Income Inequality and its Impact on Economic Growth", OECD Social, Employment and Migration Working Papers, No. 163, OECD Publishing.
- Clegg, D. (2016). Institutional arrangements and policy coordination in national anti-poverty regimes. In Halvorsen, R. and Hvinden, B. (Eds.), *Combating Poverty in Europe: Active Inclusion in a Multi-Level and Multi-Actor Context* (pp. 85-108).
- Crépon B, Ferracci M. and Fougère D. (2012), 'Training the Unemployed in France: How Does it Affect Unemployment Duration and Recurrence?', *Annals of Economics and Statistics*, pp. 107-108; pp. 175-199.
- De Agostini, P., Paulus, A., Tasseva, I. (2015) The effect of changes in tax-benefit policies on the income distribution in 2008–2015. EU Social Situation Monitor, Research Note, 2/2015. European Commission.
- Demertzis and Wolff (2016) "what are the prerequisites for a euro area fiscal capacity".

- ECB (2015): Real convergence in the euro area: Evidence, theory and policy implications, ECB Economic Bulletin, Issue 5, 30-45).
- Ehrenberg R. G. and Oaxaca R. L. (1976), 'Unemployment insurance, duration of unemployment, and subsequent wage gain', *American Economic Review*, Vol. 66, No. 5, pp. 754-766.
- Ehrenberg R. G. and Oaxaca R. L. (1976), 'Unemployment insurance, duration of unemployment, and subsequent wage gain', *American Economic Review*, Vol. 66, No. 5, pp. 754-766.
- Ernst E. (2015), 'Supporting jobseekers: How unemployment benefits can help unemployed workers and strengthen job creation', *International Social Security Review*, Vol. 68 No.3.
- European Commission (2015) 'An in-depth analysis of adult learning policies and their effectiveness in Europe'.
- European Commission (2014), *Employment and Social Developments in Europe 2014*. Brussels: DG Employment, Social Affairs and Inclusion.
- European Commission (2015), *Employment and Social Developments in Europe 2015*. Brussels: DG Employment, Social Affairs and Inclusion.
- European Commission (2016), "Public Employment Services (PES)", European Semester Thematic Fiche.
- Fitzenberger B. and Wilke R. (2004), 'Unemployment durations in West-Germany before and after the reform of the unemployment compensation system during the 1980s', ZEW Discussion Paper, No. 04-24, Mannheim, Germany.
- Fitzenberger B., Osikominu A. and Völter R. (2016), 'Get Training or Wait? Long-Run Employment Effects of Training Programs for the Unemployed in West Germany', IZA DP No. 2121. Dyke A,
- Fougère D. and Pouget J. (2004), 'Estimating the Effect of a Retraining Programme for Displaced Workers on their Transition to Permanent Jobs', IZA DP No. 1513.
- Friedman, M. (1977), "Nobel Lecture: Inflation and Unemployment", *Journal of Political Economy*, Vol. 85, No. 3, pp. 451-472.
- Gallie D., Paugam S., Jacobs S. (2003), 'Unemployment, poverty and social isolation: is there a vicious circle of social exclusion?' *European Societies*, Vol. 5, No.1, pp. 1-32.
- Gallie D., Paugam S., Jacobs S. (2003), 'Unemployment, poverty and social isolation: is there a vicious circle of social exclusion?' *European Societies*, Vol. 5, No.1, pp. 1-32.
- Gangl, M. (2006), 'Scar Effects of Unemployment: An Assessment of Institutional Complementarities', *American Sociological Review*, Vol. 71 No.6, pp/ 986-1013.
- Gangl, M. (2006), 'Scar Effects of Unemployment: An Assessment of Institutional Complementarities', *American Sociological Review*, Vol. 71 No.6, pp/ 986-1013.
- Gaure S., Røed K., Westlie L., (2008), 'The Impacts of Labor Market Policies on Job Search Behavior and Post-Unemployment Job Quality', IZA DP No. 3802.
- Gruber J. (1994), 'The consumption smoothing benefits of unemployment insurance', NBER working paper, No. 4750.
- Gruber J. (1994), 'The consumption smoothing benefits of unemployment insurance', NBER working paper, No. 4750.
- Hagedorn M., Manovskii I., Mitman K. (2015) 'The impact of unemployment benefit extensions on employment: the 2014 employment miracle?', NBER Working Paper, No. 20884.
- Heinrich C.J., Mueser P.R., Troske K.R. and Jeon K.S. (2006), 'The Effects of Welfare-to-Work Programme Activities on Labor Market Outcomes', *Journal of Labor Economics* 2006, Vol. 24, No.3, pp. 567-606.
- Jacobson L., LaLonde R., and Sullivan D. (1993), 'Earnings Losses of Displaced Workers', *American Economic Review*, No. 83, pp. 685-709. Farber H. S. (1997), 'The Changing Face of Job Loss in the United States, 1981-1995', *Brookings Papers on Economic Activity*. *Microeconomics*, pp. 55-142.
- Jacobson L., LaLonde R., and Sullivan D. (1993), 'Earnings Losses of Displaced Workers', *American Economic Review*, No. 83, pp. 685-709. Farber H. S. (1997), 'The Changing Face of Job Loss in the United States, 1981-1995', *Brookings Papers on Economic Activity*. *Microeconomics*, pp. 55-142.
- Jenkins S.P., Garcia-Serrano C. (2004), 'The relationship between unemployment benefits and re-employment probabilities: evidence from Spain', *Oxford Bulletin of Economics and Statistics*, Vol. 66, No.2, pp. 239-260.
- Katz L.F, Meyer B.D. (1990), 'The Impact of the Potential Duration of Unemployment Benefits on the Duration of Unemployment', *Journal of Public Economics*, 41 (1) :45-72.
- Kluge J. (2006), 'The effectiveness of European active labour market programs', IZA DP No. 2018. Bassanini, A. and R. Duval (2006), 'Employment Patterns in OECD Countries: Reassessing the Role of Policies and Institutions', *OECD Social, Employment and Migration Working Papers*, No. 35, OECD Publishing.
- Koster F. and Fleischmann M. (2012), "Labour Market Transitions in Europe a Multilevel Analysis of Age Cohorts and Institutions across 13 Countries", *NEUJOBS WORKING PAPER*, No. D 6.5.

- Lalive, R. (2007) 'Unemployment benefits, unemployment duration, and postunemployment jobs: A regression discontinuity approach', *The American Economic Review*, Vol. 97, No. 2.
- Lalive, R. (2007) 'Unemployment benefits, unemployment duration, and postunemployment jobs: A regression discontinuity approach', *The American Economic Review*, Vol. 97, No. 2.
- Lauringson A. (2012), 'The Impact of the Generosity of Unemployment Benefits on Estonian Labour Market Outcomes in a Period of Crisis', *Dissertationes Rerum Oeconomicarum Universitatis Tartuensis*, No. 44. Tartu University Press: Tartu.
- Lechner M., Miquel R. and Wunsch C. (2007), 'The Curse and Blessing of Training the Unemployed in a Changing Economy: the Case of East Germany after Unification', *German Economic Review*, Vol. 4, No. 8, pp. 468–507.
- Lechner M., Miquel R. and Wunsch C. (2011), 'Long-Run Effects of Public Sector Sponsored Training in West Germany', *Journal of the European Economic Association*, No. 9, pp. 742–784.
- Lehmann H. and Kluve J. (2010), 'Assessing Active Labour Market Policies in Transition Economies, in: *The Labor Market Impact of the EU enlargement*' Physica: Heidelberg, pp. 275-307
- Marchal, S. and Van Mechelen, N. (2014). A new kid in town? Active inclusion in European minimum income schemes. *ImPRovE Discussion Paper No. 14/07*. Antwerp
- McKenna C. and McHugh R. (2016), *Share of Unemployed Receiving Jobless Aid Remained at Record Low in 2015*, NELP Blog.
- McKnight A. and Vaganay A. (2015), 'The Strength of the Link between Income Support and Activation', LSE Enterprise in association with LSE CASE.
- Meyer, B. (1990), 'Unemployment Insurance and Unemployment Spells' *Econometrica*, Vol. 58, No.4, pp. 757-782.
- Monfort, Ph. (2008), 'Convergence of EU regions - Measures and evolution', European Commission, Directorate-General for Regional Policy Working papers, No. 1.
- Munch J.R., Skipper L. (2008) 'Programme Participation, Labor Force Dynamics, and Accepted Wage Rates' in Fomby T, Hill TC, Millimet DL, Smith JA, Vytlacil EJ (Eds), *Modelling and Evaluating Treatment Effects in Econometrics (Advances in Econometrics, Volume 21)*, Emerald Group Publishing Limited 2008, pp. 197–262.
- Nelson, K. (2008) Minimum income protection and European integration: trends and levels of minimum benefits in comparative perspective, 1990-2005. *International Journal of Health Services*. Vol. 38(1): 103-124.
- Nickell S. (1997), 'Unemployment and Labor Market Rigidities: Europe versus North America', *The Journal of Economic Perspectives*, Vol. 11, No. 3, pp. 55-74.
- Nunziata L. (2002), 'Unemployment, labour market institutions and shocks', *Nuffield College Working Papers in Economics*, No. 16.
- Ostry J.D., Berg A., and Tsangarides C.G. (2014), *Redistribution, Inequality, and Growth*, IMF SDN/14/02X.
- Poghosyan T., Senhadji A. S., Cottarelli C. (2016) "The role of fiscal transfers in smoothing regional shocks : evidence from exisiting federations", *IMF Working Paper No. 16/141*
- Rajan, R. 2010. "Fault Lines" Princeton University Press, Princeton, NJ. Rastrigina, O., Leventi, C., Vujackov, S. and Sutherland, H. (2016). *Nowcasting: Estimating Developments in Median Household Income And Risk of Poverty in 2014 and 2015*. *Social situation monitor Research note 1/2015*.
- Rodrik, D. (1999): *Where did all the growth go? External Shocks, Social Conflict and Growth Collapses*, *Journal of Economic Growth*, 4, 385-412.
- Rodriguez-Planas N., Benus J. (2010), 'Evaluating Active Labour Market Programs in Romania', *Empirical Economics*, Vol. 38, No. 1, pp. 65–84.
- Ruhm C. J. (1991), 'Are Workers Permanently Scarred by Job Displacement?', *American Economic Review*, No. 81 pp. 319–24.
- Ruhm C. J. (1991), 'Are Workers Permanently Scarred by Job Displacement?', *American Economic Review*, No. 81 pp. 319–24.
- Sala-i-Martin, X., 'Region cohesion: evidence and theories of regional growth and convergence', *European Economic Review*, Vol. 40, 1996, pp. 1325–52.
- Sapir (2016), *The Eurozone needs less heterogeneity*, Voxeu.
- Scarpetta S. (1996), 'Assessing the Role of Labour Market Policies and Institutional Settings on Unemployment: A Cross Country Study', *OECD Economic Studies*, No. 26, pp. 43-98.
- Sjöberg O., Palme J. and Carroll E. (2010), 'Unemployment Insurance', in Castles, F. G., Leibfried, S., Lewis, J., Obinger, H. and Pierson, C. (eds) *The Oxford Handbook of the Welfare State*, New York, Oxford University Press, pp. 420–434.
- Sjöberg O., Palme J. and Carroll E. (2010), 'Unemployment Insurance', in Castles, F. G., Leibfried, S., Lewis, J., Obinger, H. and Pierson, C. (eds) *The*

Oxford Handbook of the Welfare State, New York, Oxford University Press, pp. 420–434.

Tatsiramos K. (2009), 'Unemployment Duration and Subsequent Employment Stability', *Journal of the European Economic Association*, Vol. 7, No. 6 (Dec.), pp.1225-1260.

Tatsiramos K. and van Ours J. C. (2012), 'Labor Market Effects of Unemployment Insurance Design' IZA Discussion Paper, No. 6950.

Tatsiramos, K. (2014), 'Unemployment benefits and job match quality: Do unemployment benefits help those seeking work to obtain better jobs?', *IZA World of Labour*, No. 44. Bonn, Institute for the Study of Labor.

Torp, H. (1994), 'The Impact of Training on Employment: Assessing a Norwegian Labour Market Programme', *The Scandinavian Journal of Economics*, Vol. 96, No. 4, pp. 531-550.

Van Mechelen, N. & S. Marchal (2013). Trends and convergence of Europe's minimum income schemes. *ImPRovE Discussion Paper No. 13/11*. Antwerp.

Van Ours J. and Vodopivec M. (2006), 'Shortening the Potential Duration of Unemployment Benefits Does Not Affect the Quality of Post-Unemployment Jobs: Evidence from a Natural Experiment' IZA DP, No. 2171.

Van Ours J. C., and Vodopivec M. (2006), 'Duration of Unemployment Benefits and Quality of Post-Unemployment Jobs: Evidence from a Natural Experiment', *The World Bank Policy Research, Working Paper 4031*.

Vandenbroucke (2016), *Automatic stabilisers for the euro area and the European social model*

Vodopivec M., Laporsek S., Dolenc P. and Vodopivec M.(2015), 'The Effect of Unemployment Benefit Generosity on Unemployment Duration: Quasi-Experimental Evidence from Slovenia', *IZA Discussion Paper, No. 9548*.

Wang, J. and Van Vliet, O. (2014). Social assistance and minimum income benefits: Benefit levels, replacement rates and policies across 33 countries, 1990 – 2009. *Leiden University, Department of Economics Research Memorandum 2014.04*.

Wang, J., Van Vliet, O. and Goudswaard, K. (2015). Social assistance benefits and European coordination. *Leiden University, Department of Economics Research Memorandum 2015.02*.

Wolff J. (2003), 'Unemployment compensation and the duration of unemployment in East Germany', *Sfb 386 Discussion Papers, No. 344*, University of Munich.

Wulfgramm M. and Fervers L. (2015), 'Unemployment and subsequent employment stability: does labour market policy matter?', *Socio-Economic Review*, 2015, Vol. 13, No. 4, 791–2.

Young, A., M. Higgins and D. Levy (2008), 'Sigma Convergence versus Beta Convergence: Evidence from U.S. County-Level Data', *Journal of Money, Credit and Banking*, Blackwell Publishing, Vol. 40(5), pp. 1083-1093.