PART II

Improving labour markets' efficiency

CHAPTER II.1

Preventing and fighting long-term unemployment ([1])

1. Introduction and summary

Six years after a double dip recession and a long period of low growth and low job demand, the EU is confronted by high levels of long-term unemployment and youth unemployment, with more than half the unemployed having been out of work for more than 12 months.

Long-term unemployment (LTU) now affects some 12.4 million people (almost 5% of the active EU population), with more than 6 million having been jobless for at least two consecutive years (European Commission, 2015a). Overall rates of unemployment began to decline somewhat in 2013, but long-term unemployment rates have only now ceased rising, with a great deal of variation both between Member States and between regions within them.

LTU has been identified by both the Council (ECOFIN and EPSCO) and the ECB ([2]) as a serious impediment to growth, and highlighted as a key policy challenge in the 2016 Annual Growth Survey. Within the European Employment Strategy, the Guidelines for Member State employment policies propose a significant reduction in the number of LTU 'by means of comprehensive and mutually reinforcing strategies, including the provision of specific active support to long-term unemployed to return to the labour market' ([3]).

Policy actions at Member State level are seen as uneven and fragmented, with too great a focus on coverage and not enough on addressing the problems of discontinuity and activation design ([4]). Insufficient activation support, discontinuities in service delivery and the limited effectiveness of activation programme designs are seen as major explanations for the sluggish improvement of LTU labour market performance.

Recognising the importance of an EU level policy response, the Council invited the Commission 'to develop proposals to help support the long-term unemployed'. As a result, a Commission proposal for a Council Recommendation ([5]) was adopted on September 17, 2015 with the aim of engaging all Member States in actions that support a general improvement in the efficiency and modernisation of the LTU integration process. The objective is to draw on the positive lessons from cooperative processes of mutual learning at EU level and to turn this into an action framework that can raise levels of service delivery performance in all Member States, and contribute to overall upward EU convergence.

The EU LTU initiative aims to support Member State activity in three specific areas:

- increasing the scale and effectiveness of active support for the long-term unemployed;
- ensuring greater continuity in the services provided by relevant public or outsourced services;
- increasing the effectiveness of interventions targeted on both the long term unemployed and potential employers.

This chapter begins with an overview of the current situation of the long-term unemployed in the EU and the main characteristics of those affected. It also makes an assessment of the policies that are currently in place to tackle the LTU problem. Building on existing analytical work (e.g. ESDE 2012 and 2014) ([6]) it seeks to identify the mix of policies that appear to have had the most positive

([1]) By Lina Salanauskaite, Filip Tanay and Isabelle Maquet and with contributions from Petrica Badea, David Arranz, Alphametrics (Andy Fuller & Duncan Coughtrie) and CEDEFOP (Konstantinos Pouliakas).

([2]) http://www.ecb.europa.eu/press/key/date/2014/html/sp140822.en.html.

([3]) European Commission (2015). Integrated guidelines to the Proposal for a COUNCIL DECISION on guidelines for the employment policies of the Member States, COM (2015) 98 final.

([4]) Proposal for a Council Recommendation on the integration of the long-term unemployed into the labour market COM(2015) 462 - **Commission Staff Working Document - Analytical Supporting Document.**

([5]) **Commission Proposal for a Council Recommendation on the integration of the long-term unemployed into the labour market COM(2015) 462.**

([6]) ESDE refers to Employment and Social Developments in Europe, in particular European Commission, 2012a and 2014f.

impact in terms of both an increase in the number of LTU returning to employment and minimising the transitions from short-term unemployment (STU) to long-term unemployment (LTU).

The current analysis builds on past work but looks in greater depth at the evidence:

- firstly it focuses on those groups (in terms of age, gender, education, country of origin) that have been most affected by the crisis and become LTU or inactive;
- secondly it explores the difference between the characteristics of the LTU compared to the short term unemployed (STU);
- thirdly it improves the Labour Market Institutions Index (LMII) developed in ESDE 2014 in ways that enable it to focus on performance relating to combatting and preventing LTU;
- fourthly it improves the analysis of the policy interventions that have helped combat LTU most effectively across Member States by controlling for a range of country-specific socio-economic developments as well as personal characteristics like age, gender, or prior work experience.

Overall these analyses demonstrate that the Member States that have made the greatest investment in labour market activation and support measures have achieved the best results in terms of preventing LTU, combatting existing LTU, or preventing the LTU from falling into inactivity even when taking into account the different macroeconomic context of each Member State. Moreover, in Member States with the highest ALMP expenditure, the best labour market performance outcomes are observed when high levels of participation in lifelong learning/training and strong job search requirements are included as part of their unemployment benefit schemes, combined with widespread coverage and relatively low eligibility criteria.

In this respect the analysis shows that many of the policy interventions made in 2014 failed to cover the different segments of the LTU population equally or adequately. The young, the low-skilled and third-country migrants faced the highest risk of being LTU before the crisis and were then the hardest hit during the crisis, while the old and low-skilled now have the least chance of returning to work.

The policy interventions that are seen to have a major positive impact in aiding the long-term unemployed back to stable jobs are three-fold: lifelong learning/training, PES registration and receiving unemployment benefits ([7]). The impact of the last two policy interventions depends, however, on the quality of their delivery and design, and can vary across target groups. For example, low education levels are more of a hindrance to entering employment for young people than they are for older LTU.

The chapter concludes that a comprehensive policy action is needed, combining activation and support that is linked to the economic cycle, extending both expenditure on, and coverage of, support (e.g. unemployment benefits) and activation measures (e.g. ALMPs and lifelong learning/training) during economic downturns. In that respect, however, the analysis also highlights the fact that group-specific and country-specific policy interventions remain key factors that influence the extent to which the long-term unemployed can be helped back into stable jobs.

2. Long-term unemployment in the EU: Snapshot of people and policies

2.1. The challenge of long-term unemployment

The consequences of long-term unemployment (LTU) vary over time and between Member States and can likewise differ in terms of both its duration and in terms of the education, age, gender and nationality of those who are most affected.

Levels of long-term unemployment are at record highs and, even when growth picks up, the current prospects are not particularly encouraging. This is due to the fact that exit rates from LTU tend to be less sensitive to upturns in the economic cycle than those of the short-term unemployed (STU) (Krueger et al., 2014), highlighting the scale of the challenge in reintegrating the EU's 12.4 million LTU back into employment.

People who have been unemployed for a long time are more likely to suffer from skills atrophy and obsolescence (combined with a failure to acquire new on-the-job skills). They are also likely to suffer more general adverse long-term consequences, such as negative signalling effects for potential employers, low self-esteem, discouragement and other 'scarring' effects (e.g. lower employment and earnings potential, inhibited professional development, poor health and well-being outcomes) (Cedefop, 2013; European Commission, 2014; Box 1). Over time, this can lead to the permanent alienation or departure from the labour market of those who become LTU with consequent risks of poverty, social exclusion and material deprivation (European Commission, 2012a).

The economic and welfare costs of persistent unemployment are large for the economy as a whole, as well as for those directly affected, since social assistance systems generally 'kick in' when the long-term unemployed exhaust their rights to unemployment benefits (UB). This is further exacerbated by the fact that for example older LTU may be associated with increased social security costs, insofar as they make premature exits from the labour force by going into early retirement or via disability schemes.

Thus, while positive developments in the economy have the potential to reduce the number of LTU (as indicated by the econometric analysis in Section 4), there is clearly a high risk that the LTU benefit only slowly due to their unfavourable labour market characteristics and their lower employability compared to the STU. This then turns LTU into a structural rather than just a cyclical challenge, with the risk of those affected becoming discouraged and falling into inactivity just at a time when projected demographic developments over the coming years and decades suggest that the EU economy needs to make the

([7]) While it would have been very desirable to see if the LTU are not only covered by unemployment benefits but also by social assistance, due to most unemployment benefit eleigibility expiring after the first year of unemployment, this was unfortunately not possible as the EU-LFS does not provide this data and EU-SILC does not measure durations of unemployment and hence does not distinguish between STU and LTU.

maximum use of all its potential labour resources (Peschner and Fotakis, 2013; Peschner, 2012).

2.2. The size and dynamics of the LTU challenge: reaching historical highs

While unemployment in the EU-28 as a whole began to decline somewhat in 2013, this was largely due to the most employable workers, rather than the long-term unemployed, finding jobs. In fact, long-term unemployment (LTU) has increased steadily since the beginning of the recession (Chart 1) with the very long-term unemployed (VLTU – those unemployed for more than two consecutive years) having closely followed the LTU trend, and now accounting for more than 30 % of the unemployed and over 60 % of those who were long-term unemployed at the end of 2014 (European Commission, 2015a).

In the first phase of the economic downturn, unemployment was mainly the result of a strong increase in (cyclically adjusted) dismissal rates (e.g. Spain, Lithuania, Romania, Greece, Portugal, Slovenia, Cyprus) (Arpaia, Kiss and Turrini, 2014). Over time, however, while inflows into unemployment have reduced and returned to near their pre-crisis level, the job finding rates have remained low for both the short and long-term unemployed.

As a result of these developments, the likelihood of remaining unemployed after one year has increased in the post-crisis years, leaving 38 % of those who became jobless in 2012 still looking for a job in 2013, compared to 27 % between 2007/08. This persistence rate of unemployment also increased for the LTU, but at much higher levels (63 % between 2012/13, compared to 50 % between 2007/08) (European Commission, 2014f).

Despite the fact that 2014 saw both the unemployment rate and the LTU rate reaching 1995 record levels (in the EU-15), several factors indicate that the impact of the latest crisis differs from that of previous recessions (Chart 1). The evidence shows that the sharp increase in LTU in the post 2008 crisis is partly due to the fact that more workers remained in the labour market compared with the 1990s when much larger proportions of the unemployed became inactive (European Commission, 2014f). At the same time, the share of the VLTU within overall LTU has increased this time reaching historic highs in 2014 (64.2 %) ([8]).

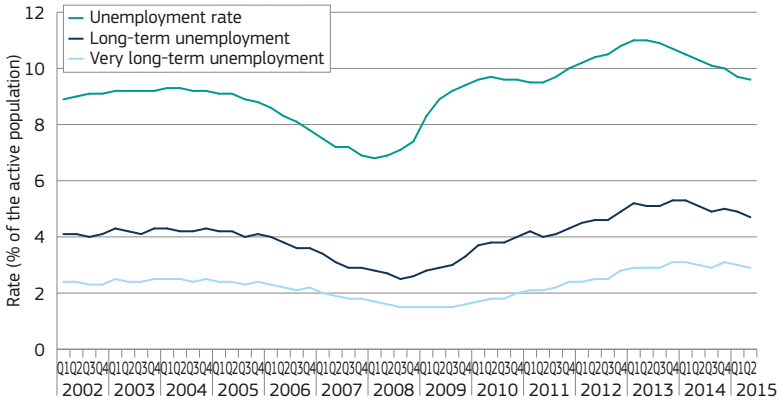
Box 1: LTU and Health: The longer the duration of unemployment, the worse one's (self-reported) health gets

A forthcoming study (Brenner, 2015) analyses the impact of long-term unemployment on self-perceived health in EU Member States.

The analysis used a regression model to examine the relationship between the duration of unemployment and self-perceived health (the sum of respondents who indicated that their health was either "bad" or "very bad") at the national level. It controlled for socio-economic indicators (GDP per capita, level of economic development) and for lifestyle variables classically influencing health (smoking prevalence, prevalence of obese (BMI > 30) population, and alcohol beverage supply) as well as the age-standardised HIV prevalence were included in the model.

The principal findings were that the total unemployment rate, LTU rate and VLTU rate were all strongly related to increased reports of bad and very bad self-perceived health. In fact, the impact of unemployment (i.e. effects based on the coefficients) increased in a 'dose-response' manner with the total unemployment rate showing the smallest coefficient, the LTU rate showing a greater coefficient, and the VLTU rate showing the strongest impact in terms of increasingly bad and very bad self-reported health. The findings complement existing evidence that identified unemployment as an important risk factor for heart disease mortality at the start of the 2008/2009 recession (Brenner, 2013).

Chart 1: Evolution of long-term unemployment rate and share in the EU-28, 2002Q1-2015Q2



Source: EU-LFS [une_ltu_q] and [une_rt_q].

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([8]) The highest level of VLTU as a share of LTU in this period was recorded in the third quarter of 2000 (64.7 %).

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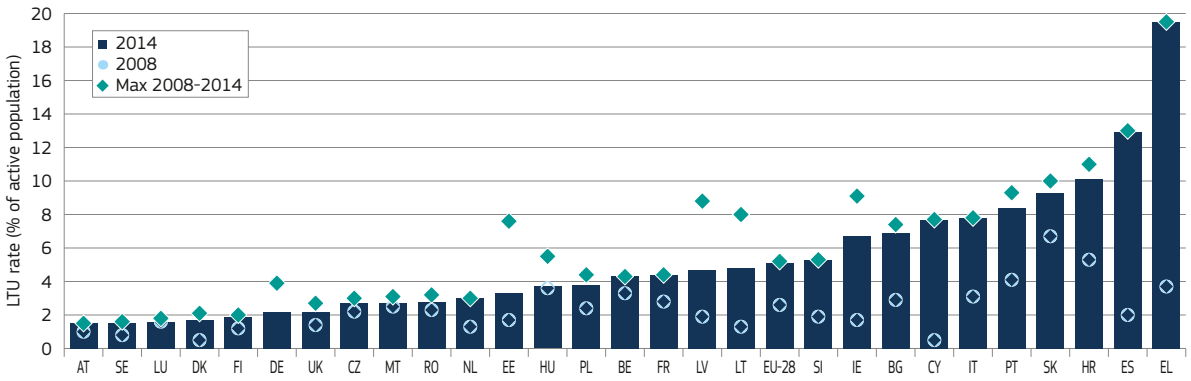
Chart 2: The long-term unemployment rate across the EU-28 Member States, 2008 and 2014



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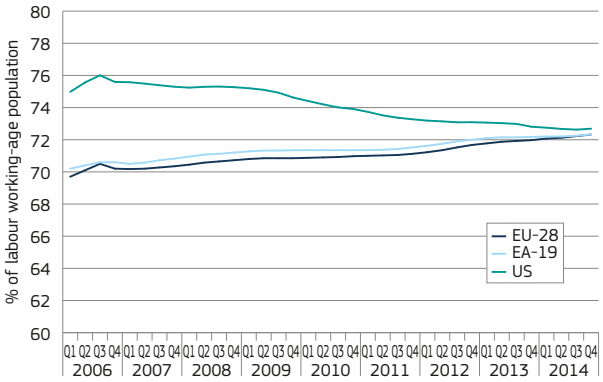
Source: EU-LFS [une_ltu_a].

Chart 3a: Activity rate – EU, EA and US



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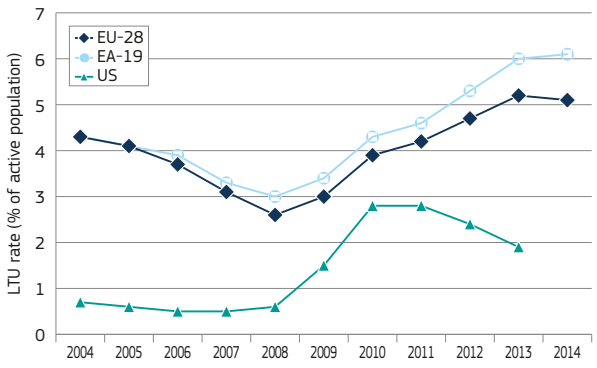
Sources: European Commission, 2015a; the US Current Population Survey (CPS); Eurostat, EU-LFS [lfsi_act_q]; data non-seasonally adjusted.

Notes: Age 15-64 for EU, EA and 16-64 for the US. Average of the current and 3 previous quarters.

Chart 3b: LTU rate – EU, EA and US



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Source: Eurostat EU-LFS [une_ltu_a].

The distribution of the EU's 12.4 million long-term unemployed varies greatly between Member States (Chart 2) with the LTU rate ranging from very low (1.5%) in Austria and Sweden to almost a fifth of the total labour force in Greece (19.5%). Since the onset of the crisis, only Germany has managed to reduce the long-term unemployment rate (-1.7pps) with the greatest increases being seen in Greece (+15.8pps) and Spain (+10.9pps). In total, 21 Member States have experienced higher LTU rates in the last few years than they had in previous decades.

The EU currently has a considerably higher LTU rate than the United States (5.2% as against 1.9% in 2013) and the difference is even greater with regard to Euro Area Member States (EA-19) where the rate is 6.0% ([9]). While the difference between Europe and the United States is a reason for concern, it is notably a result of the fact that fewer people in the EU have halted their job-search activity compared with their United States counterparts. Thus, while United States activity rates declined after 2008, they have increased consistently in the EU during the past decade, even during the crisis years (Chart 3a and 3b) ([10]).

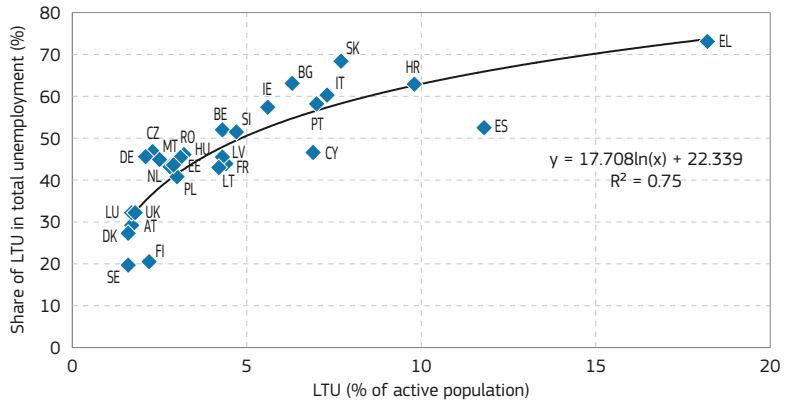
The Member States with the highest unemployment rates tend also to have a high share of LTU among their unemployed (e.g. Greece, Croatia, Cyprus and Portugal). However there are also important structural differences between Member States, with, for example, Sweden and Germany having similar unemployment rates, but with Germany having a much higher share of long-term unemployed (Chart 4). This suggests that Sweden has a better ability to tackle and prevent people from falling into LTU than Germany. Judging by the transition data this is due to Sweden being more effective at both preventing the STU from becoming LTU (Chart 9) and in getting the LTU back to employment (Chart 10). Among other reasons, this could also be due to the fact that a higher proportion of the LTU are highly educated in Sweden compared to Germany (+11 ppts) but this is to an extent counterbalanced by Sweden having also more low-educated people among those who are LTU (+5 ppts) (Annex Table 2 – LTU characteristics). Sweden also has somewhat more young (15-24) people among its LTU and a bit less of the older workers (55-74).

Member States with higher overall long-term unemployment rates tend to have higher regional (NUTS2) dispersion rates (Chart 5). However, the degree to which higher LTU rates overall can be attributed to the situation in their less developed regions varies considerably across Member States. While a moderate negative correlation exists between the regional GDP per capita and regional LTU rate (r=-0.42), the relatively low explanatory value (r^2=0.17) indicates that the local LTU rate is influenced by many other factors, including those that are likely to be defined at a national level. Thus, while the explanatory value of a regional analysis of LTU may be

([9]) Eurostat EU-LFS [une_rt_a].

([10]) 2008Q4 vs. 2013Q4: US went from 75.3% to 72.8%, the EU-28 went from 70.7% to 72%, while the EA-19 went from 71.2% to 72.2%.

Chart 4: LTU share in total unemployment and in economically active population, 2015Q2



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Source: Eurostat EU-LFS.

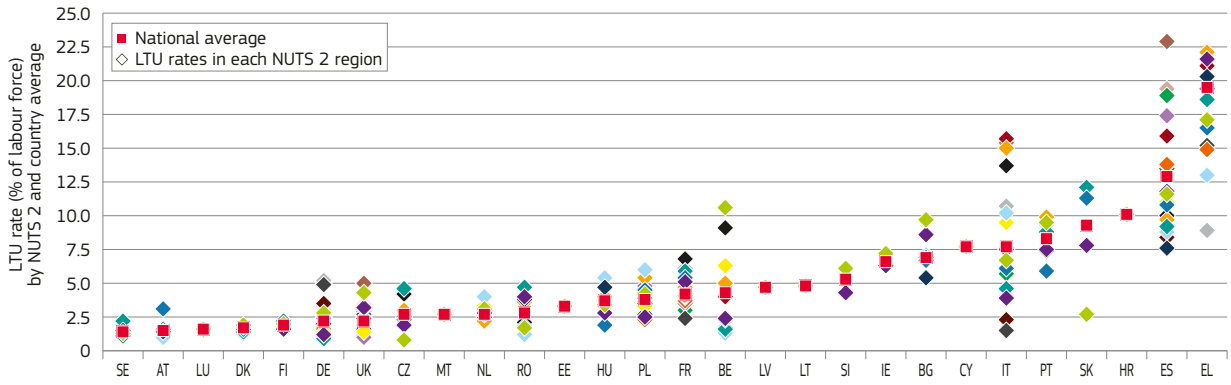
limited, it nevertheless suggests that the impact of the crisis on the duration of unemployment can vary across regions as much as it does between Member States. Furthermore, existing empirical evidence suggests that variation in regional unemployment rates has an impact on policy effectiveness. For example, the UK labour market policy (i.e. New Deal for Young People) is noted to have a larger effect on job-entry rates in areas with lower unemployment rates than in areas with higher unemployment rates (McVicar and Podivinsky, 2010).

2.3. Both likelihood of finding a job or falling into inactivity reduced during the crisis

Long-term unemployed workers have about half the chance of finding employment than the short-term unemployed and their situation has worsened due to the crisis (Chart 6). In 2006 almost one quarter of those who had been long-term unemployed in the previous year were able to find a job. However, by 2014, this proportion had fallen to only 16% (Panel A)([11]). In parallel, the persistent stay in long-term unemployment increased from around 40% in the period of 2005-2006 to around 49% in the period of 2013-2014. In contrast to the experience of the LTU, which have seen no signs of improving their job prospects, the transition rates of the short-term unemployed to employment – though still lower than in pre-crisis times – were already on the rise by 2013-2014 (Panel C).

Meanwhile the share of the long-term unemployed who became inactive continually decreased from a peak in 2008-2009 until 2012-2013. Some long-term unemployed people do find a temporary job before becoming unemployed again (see Panel A, transition rates from LTU to STU) but their numbers are relatively small, having remained at about 6% to 8% of LTU since 2005, with little change since the onset of the crisis.

Chart 5: LTU rate by NUTS2 regions and national average, 2014



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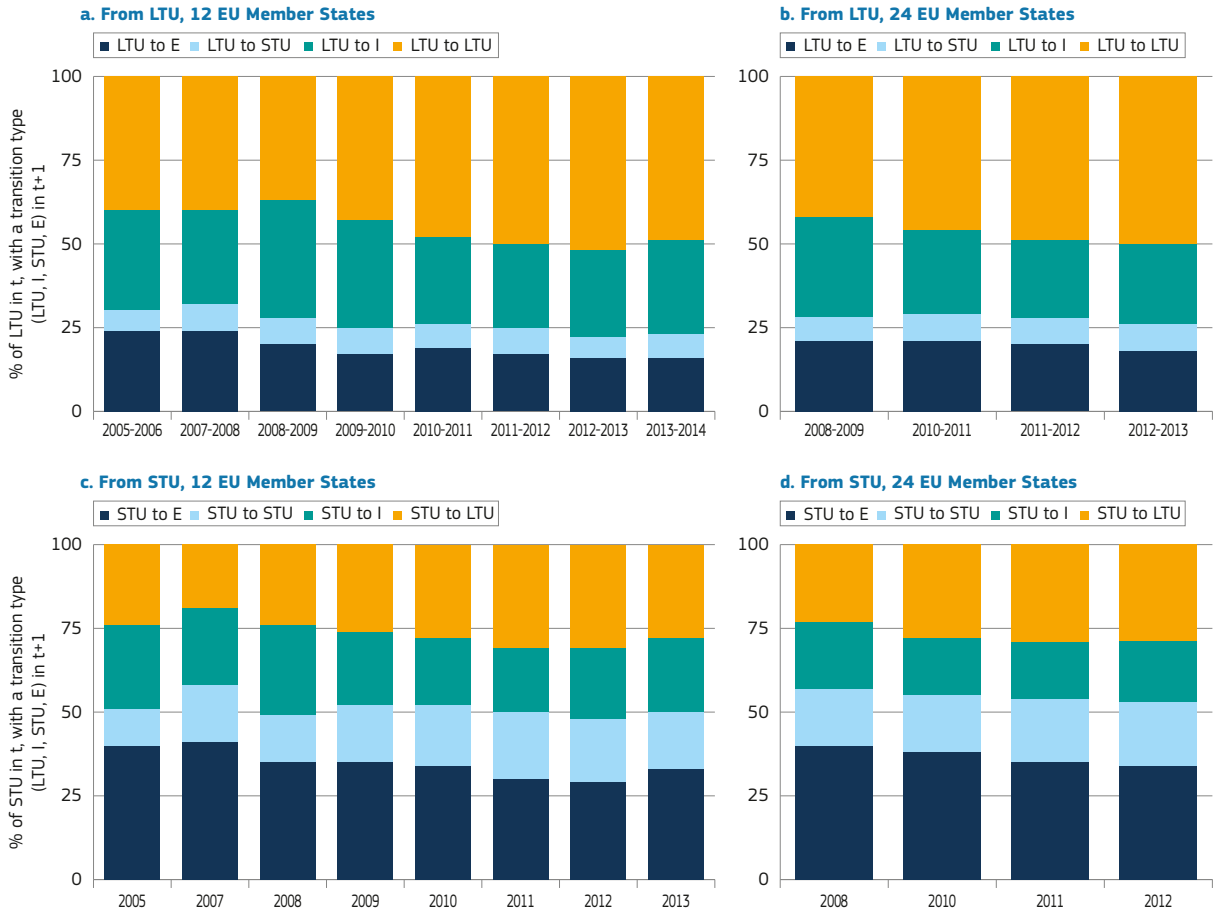
Source: EU-LFS [lfst_r_lfu2ltu].

Note: The red square marks the national LTU rate.

([11]) These results pertain to 12 EU Member States but the shorter available series for 24 EU countries reveal a similar trend (see Panels B and D). Selection of Member States due to longitudinal EU-LFS data availability. 12 EU MS are BE, CY, EE, GR, HU, IT, MT, PL, RO, SE, SI, SK and EU-24 is EU-28 without BE, LU, NL, PT.

Chart 6: Outflows from LTU and from STU



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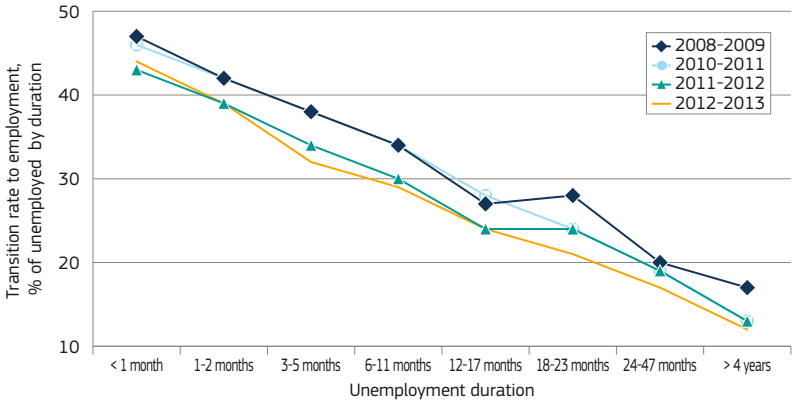
Source: DG EMPL elaborations based on EUROSTAT experimental EU-LFS flow statistics; population group 15-64 years old; EU-24 is EU-28 without BE, LU, NL and PT; here and further on, the transition rate shows percentage of unemployed people in t-1 who are employed in t.

Job finding rates among the LTU decrease the longer they remain unemployed (Chart 7). To take an extreme example, while 44% of those who had been unemployed for less than one month in 2012 found a job, only 12% of those who had been unemployed for more than four years managed to do so. Towards the end of the crisis, job finding rates dropped below 20% after 18 months of unemployment, though they were close to 30% at the beginning of the crisis.

As the duration of unemployment increases, the likelihood of becoming inactive rises (Chart 8). Paradoxically, the transitions from unemployment to

Chart 7: Transition rates from unemployment (2008-2012) to employment (2009-2013), by unemployment duration in the previous year, EU-24*



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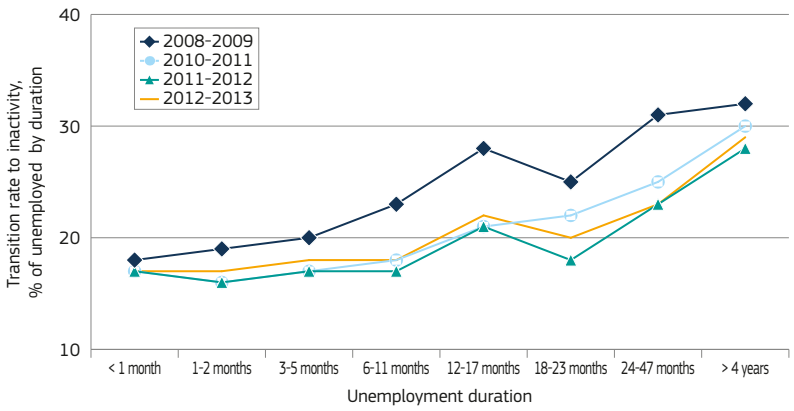
Source: DG EMPL elaborations based on EUROSTAT experimental EU-LFS flow statistics.

Note: * EU-24 is EU-28 without Belgium, Luxembourg, the Netherlands and Portugal; population reference group: 25-64 years old.

employment and from unemployment to inactivity have both dropped during recent years, with the latter evidence suggesting greater labour market attachment of the unemployed during the crisis. In particular, exits to inactivity declined most for those who were unemployed for 18 months or more. Changing policy contexts such as the closure of certain labour market exit routes via early retirement or disability programmes might have affected behaviour regarding increased stays in the labour market. Given that the latest available data (Chart 6) shows a potential return of higher inactivity rates, the underlying reasons for this changing behaviour merit closer investigation.

Chart 8: Transition rates from unemployment (2008-2012) to inactivity (2009-2013), by unemployment duration in the previous year, EU-24*



Source: DG EMPL elaborations based on EUROSTAT experimental EU-LFS flow statistics.

Note: *EU-24 is EU-28 without Belgium, Luxembourg, the Netherlands and Portugal; population group 25-64 years old.

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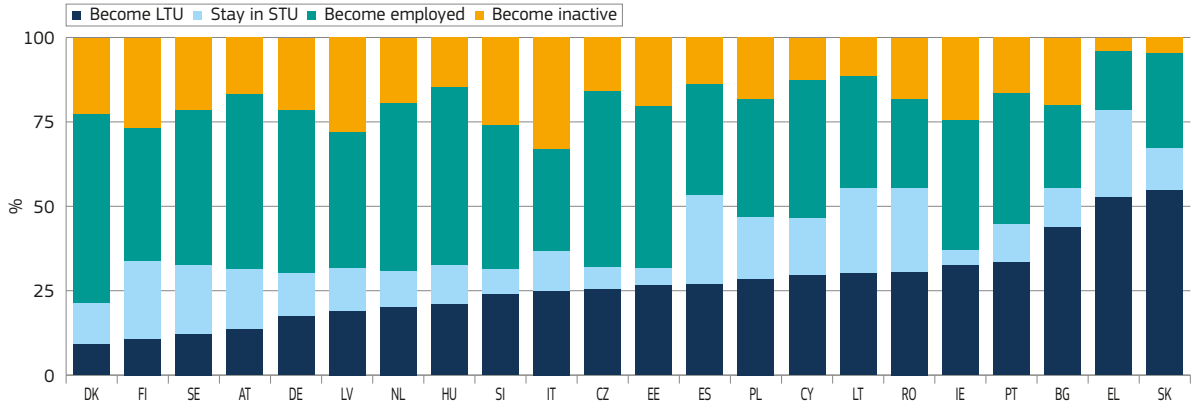
Chart 9: Labour market status in 2014 of those in short-term unemployment in 2013



Source: DG EMPL elaborations based on EUROSTAT experimental EU-LFS flow statistics.

Note: Only Member States with available data are covered, population group 15-74 years old; data of low reliability for SI and IE regarding "stay in STU" status.

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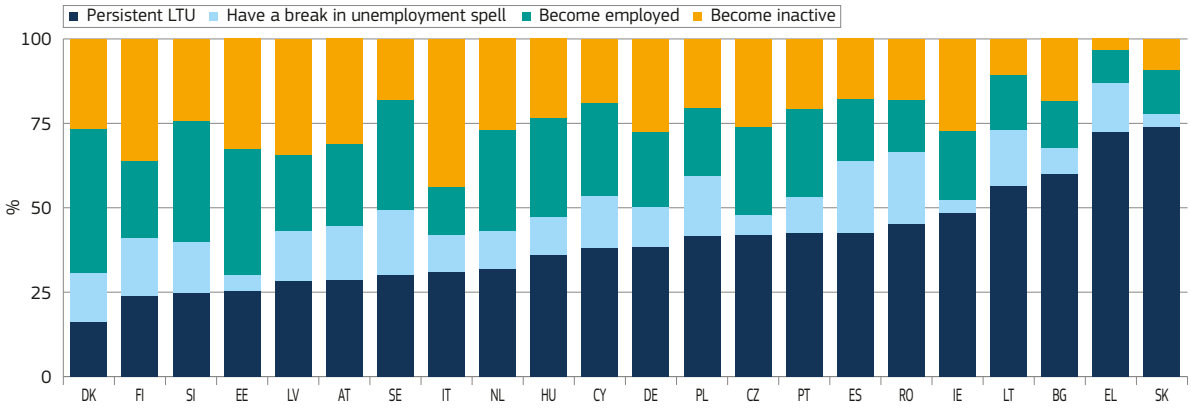
The dynamics of movements both within and between, unemployment and long-term unemployment, can vary greatly between Member States. For example, in Member States such as Denmark, Austria, Finland, Sweden, Germany and Latvia (Chart 9) less than 20% of the short-term unemployed in 2013 became LTU in the following year, compared to Bulgaria, Greece or Slovakia where the proportions were of the order of 40%. However, while in some Member States the smaller share of the unemployed becoming LTU is due to a greater chance of finding a job, in others it is due to a greater probability of withdrawing from the labour market (as seen, for example, in the transitions from STU to inactivity in IT and LV).

Across the Member States between 25% and over 80% of the LTU remained in long-term unemployment in 2014 – revealing large differences in the dynamics of LTU levels (Chart 10). In Denmark, which has the smallest share of persistent LTU, the chances of moving into employment are quite high with more than 40% of the LTU finding jobs. In Italy, on the other hand, a similar percentage of the LTU become inactive to those remaining long-term unemployed, with only 15% finding sustainable jobs (i.e. jobs lasting at least one year).

In Greece and Slovakia – Member States with the highest LTU persistence rates – job finding chances are similarly bleak at 10% and 13% respectively. Chart 10 also shows that, in a number of Member States, the LTU tend to find temporary jobs, such as Romania and Lithuania. However, while some 15% of the LTU in these Member States do move into more sustainable jobs, close to the same proportions (around 14% and 12% respectively) experience only a short break from unemployment. In this respect it should be noted that, in cross-sectional statistics, the latter group of people will not normally be counted as long-term unemployed, indicating a potential underestimation of the real scale of long-term unemployment.

Chart 10: Labour market status in 2014 of those in long-term unemployment in 2013



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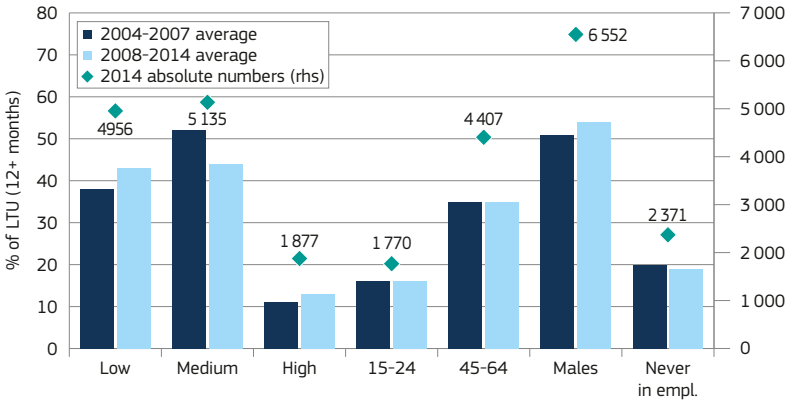
Source: DG EMPL elaborations based on EUROSTAT experimental EU-LFS flow statistics.

Note: only Member States with available data are covered, population group 15-74 years old; data of low reliability for Estonia (EE) regarding "a break in unemployment".

Chart 11: Long-term unemployed (12 months or more), by characteristics pre- and during crisis, 2004-2007 and 2008-2014 averages



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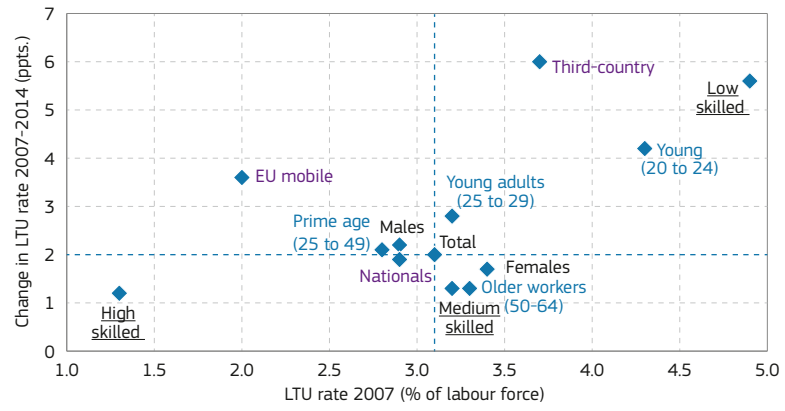
Source: EU-LFS, DG EMPL calculations.

Note: The bars represent the share that each of the characteristics represents among all of the long-term unemployed in the EU-28. The reference age group is 15-74.

Chart 12: Long-term unemployment rates by different groups aged 20-64, EU-28, 2007 and 2014



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Source: DG EMPL calculations based on EU-LFS [une_ltu_a].

Note: Country of birth used for migration background (EU mobile, third-country migrants and nationals) with no data available for DE.

2.4. Which are the LTU most at risk? Mostly the young, low-skilled and third-country migrants

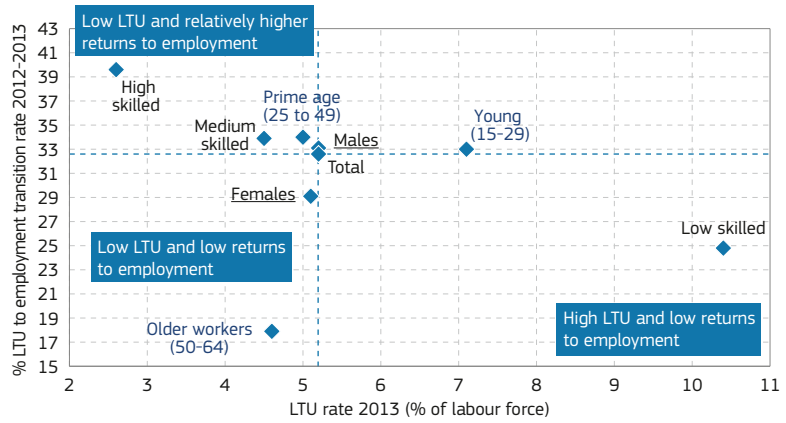
Workers face potentially higher risks of becoming and remaining long-term unemployed depending on their education, age, gender and nationality characteristics. Those who have been long-term unemployed during the crisis (Chart 11) have tended to be of medium and low levels of education (87%), and nearly a fifth (19%) have never been employed.

The incidence of LTU is more or less equally split by gender and, over the EU as a whole, the crisis seems to have had a limited impact on the main characteristics of the LTU. That said, the differences between Member States are much larger.

Long-term unemployment has not affected all groups of the EU-28 population equally. Those facing the highest risks *before* the crisis suffered most *during* the crisis and to this day (Chart 12). These are the low-skilled, the young and young adults as well as workers born in a third country. Conversely, other groups that were doing relatively well in resisting long durations of unemployment, such as the high and medium-skilled and nationals, were not as hard hit.

Data on the yearly dynamics of the different groups in the labour market

Chart 13: Long-term unemployment rates (20-64) and exits to employment (15-74) by different groups, EU-28, 2013



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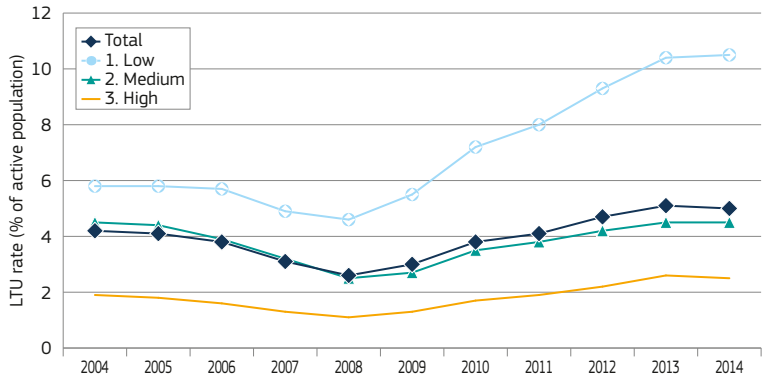
Source: DG EMPL calculations based on EU-LFS [une_ltu_a] and EUROSTAT experimental EU-LFS flow statistics. Transition rates refer to EU-24 aggregate, whereas LTU rate refers to EU-28. Due to data limitations the transition rate for the 25-49 age group is instead that of the 30-49 age group, whereas the LTU rate is that of the 25-49 age group.

Chart 14: Evolution of long-term unemployment in the EU-28 by education, 2004-2014



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Source: EU-LFS, DG EMPL calculations.

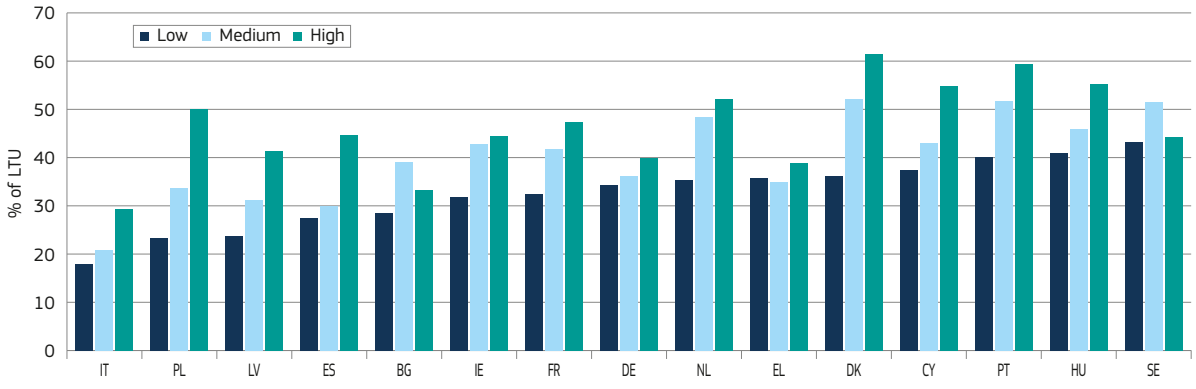
Notes: ISCED97 classification used to distinguish educational levels: low education level corresponds to pre-primary, primary and lower secondary education (levels 0-2); Upper secondary and post-secondary non-tertiary education (levels 3 and 4); and high education level corresponds to first and second stage of tertiary education (levels 5 and 6).

show that, again, it is the worst off - the low-skilled, the young (20-24), and third-country migrants – that have the least chance of returning to employment (Chart 13). Moreover, while the likelihood of an older worker becoming LTU is relatively low, they are likely to have the hardest time finding fresh employment if they find themselves in that situation.

Not only are low educated unemployed most affected by LTU but their number has more than doubled over the period of the crisis (Chart 14) ([12]). Furthermore, they have less chance of finding a job once they become unemployed (Chart 13), both because they were employed in sectors that have been strongly hit by the recession, and because they lack the skills currently needed by the labour market. It is therefore notable that, despite their apparent greater need for training, the participation of the low-skilled in lifelong learning/training activities, both when employed and unemployed, is much lower than for other groups (see Section 3).

Higher education increases the likelihood of finding jobs for the LTU in most Member States, but with the chances of success being highly country-specific (Chart 15). In a number of Member States, such as Poland, France, Ireland, Germany, Hungary and Portugal, higher educational levels of the LTU are associated with higher chances of finding jobs.

Chart 15: Transitions from LTU to employment by education level, 2013-2014



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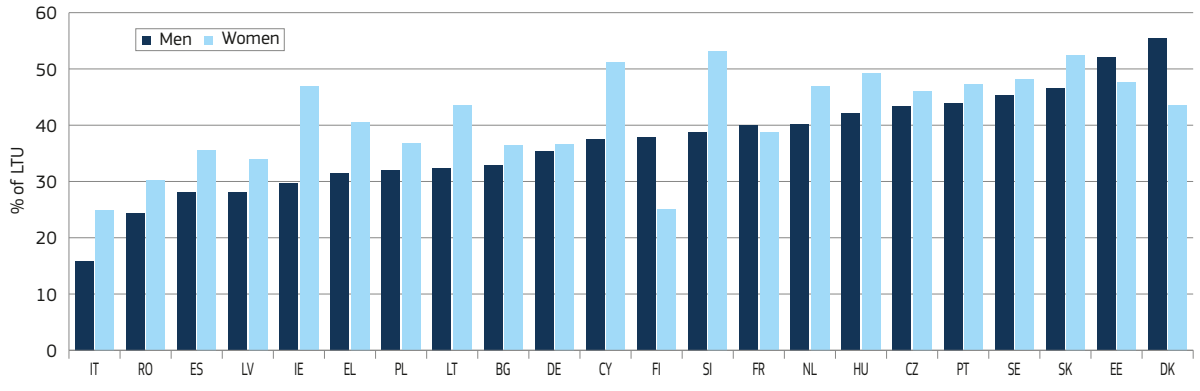
Source: DG EMPL elaborations based on EUROSTAT experimental EU-LFS flow statistics.

Note: Only Member States with available data are covered, population group 15-74 years old.

([12]) From 2.5% in 2008 to 4.9% in 2013.

Chart 16: Transitions from LTU to employment by gender, 2013-2014



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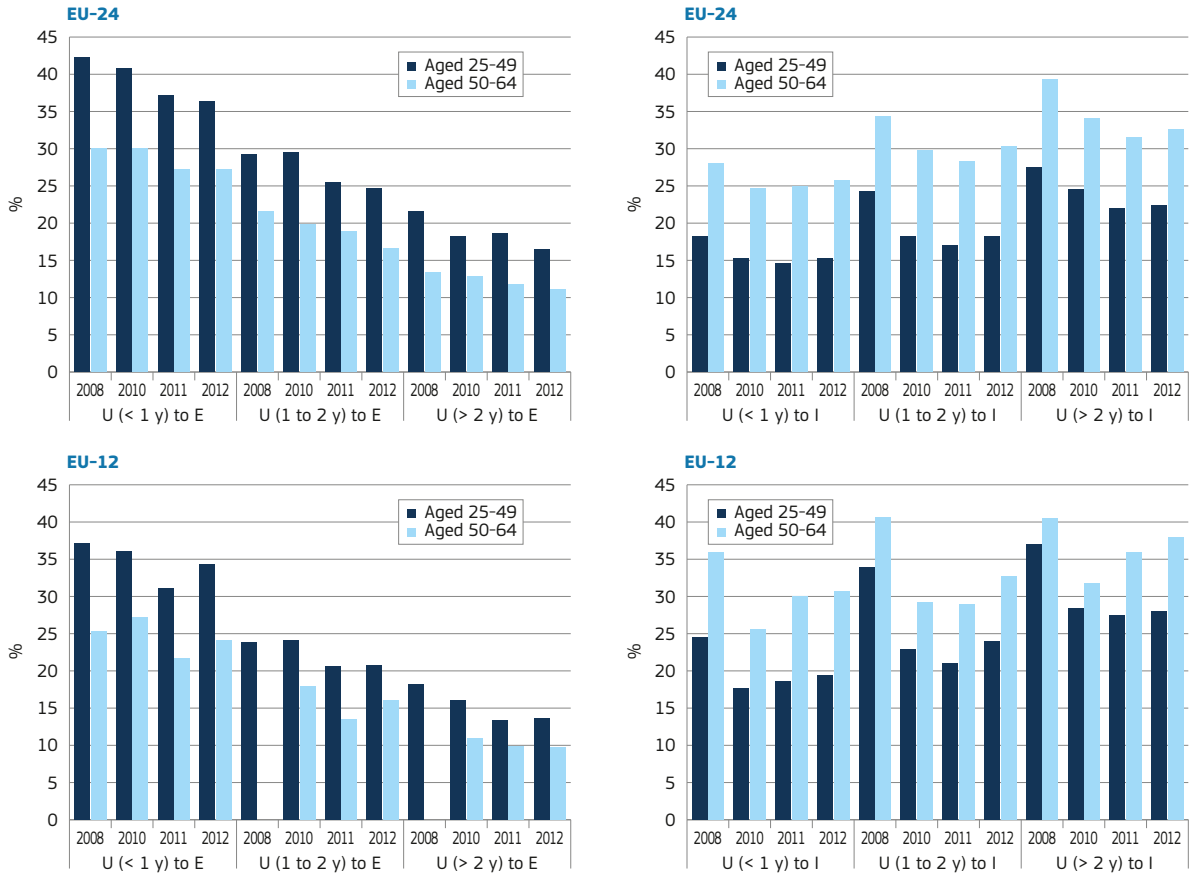
Source: DG EMPL elaborations based on EUROSTAT experimental EU-LFS flow statistics.

Note: Only Member States with available data are covered, population group 15-74 years old.

Chart 17: Transition from unemployment to employment and inactivity by age groups, EU-24 (2008-2009 to 2012-2013) and EU-12 (2008-2009 to 2013-2014)



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Source: DG EMPL elaborations based on EUROSTAT experimental EU-LFS flow statistics.

Notes: U stands for unemployment, E for employment and I for economic inactivity; reported rates are % unemployed (by relevant duration); 12 EU Member States are Belgium, Cyprus, Estonia, Greece, Hungary, Italy, Malta, Poland, Romania, Sweden, Slovenia, Slovakia ; EU-24 is EU-28 without Belgium, Luxembourg, Netherlands, Portugal; gaps in data are due to reliability limits.

This is in line with expectations, although in Italy and Spain, those with a medium level of education do not have a much higher chance of finding a job than the low-skilled, with only those with the highest educational attainments having significantly increased employment opportunities. In Greece, labour market opportunities are weak for all educational levels, reflecting the difficult economic situation overall.

The crisis has narrowed the gap between men and women in terms of LTU. While the gap in LTU rates of men and women had been one percentage point in 2002, they converged in 2014 at just over 5 % ([13]). This was mainly due to men having become more affected over time by LTU than women (Chart 12) and primarily due to the large job losses in male dominated sectors such as manufacturing and construction during the crisis (Table 1).

Men, however, still tend to have greater chances of returning to employment in most Member States (Chart 16). That said, the gender gap among the LTU is very small in Germany, the Czech

([13]) According to EU-LFS [une_ltu_a], the LTU rates from men and women in 2002 stood at 3.7 % and 4.6 % respectively, but in 2014 both stood at 5.1 %.

Republic, Portugal and Sweden. In a handful of Member States (Finland, France, Estonia and Denmark) women have a higher chance of returning to employment than men. The latter Member States also have higher total transition rates overall, suggesting that increasing opportunities for the integration of women into labour markets also contribute to addressing the issue of long-term unemployment.

It should be noted that some observed gender gaps are due to generational differences. For example, higher rates of female transition into employment in France are mainly due to the increased performance of older women in comparison to men (i.e. aged 50-69), while there is no gender gap among younger age groups.

Of all the age groups, the youngest and oldest workers were hardest hit by long-term unemployment in the crisis. The youngest workers (20-24) were most affected by LTU both before and during the crisis, with the recession pushing more of them into long-term unemployment than older age groups (Chart 15). Nevertheless, younger workers seem to have relatively high chances of finding a job, while the older LTU had the worst chances of returning to employment (Chart 13).

In comparison to 2007, the share of older workers (i.e. 55-64) among the LTU has increased most in comparison to other age groups (Table 1). This could be partially explained by the overall ageing of the populations but some of this increase has been due to older workers increasingly being unemployed and LTU. However, developments across Member States have been quite diverse. In some cases the increase in the share of older workers in LTU has been driven by both demographics and worsening labour market outcomes (e.g. Greece, Croatia, Ireland, Spain and the EU-28 average), while in others it has been driven more by difficult labour market conditions than population ageing (e.g. Denmark and the United Kingdom).

Transition rates to employment are lower for older people and especially for those with longer unemployment durations. Chart 17 shows that only 30% of short-term unemployed elderly people, aged between 50 and 64, were able to find a job in 2013 - about one quarter lower than the respective transition rates to employment rate of prime working age people (i.e. aged 25 to 49).

The longer the period of unemployment is, the lower the employability chances are for both older and younger workers. If 17% of older people found jobs in 2013 after one to two years of unemployment, only just above 10% did so after more than two years of unemployment. In comparison, about 25% and 16% of younger people with respective periods of long-term unemployment were able to get employment in 2013.

The crisis has reduced the chances of finding jobs both among older and younger people – if not at the beginning of the crisis, then towards the end of it (e.g. for those aged 50 to 64 by 2012-13). The largest decreases (by close to 25%) in job finding rates were noted for elderly people who had been unemployed for one or two years, and for the prime working age people in very long term unemployment. As a result, the age gap in job finding rates narrowed for the VLTU, but widened for the LTU. Both developments point to the scarring effects of the unemployment duration. On the one hand, the chances of the elderly finding jobs are further diminished by longer unemployment periods, though they were already bleak if they were VLTU.

Recent improvement in economic prospects benefits those in STU, but leaves LTU and particularly the VLTU outside the reach. The most recent data for the period of 2013-2014, available for 12 EU Member States (Chart 17), suggests that job finding rates have started to improve for both prime working age people (by about 3 ppt) and for older workers in STU (by about 2 ppt), but only for the older workers in LTU (2 ppt). Despite the latter improvement, prospects of the older people in finding jobs are still lower than of the younger people. On the other hand, no gains in employment chances have yet been noted for any age groups in VLTU and for younger people in LTU. This lack of job gains among the prime working age people – who otherwise reveal the largest employment capacity – calls for special policy attention.

Transition rates to inactivity are higher for older workers and for longer unemployment durations (Chart 17). On average in EU-24, the gap in transition to employment between older and prime-age working people has remained at about 10 to 12 ppt since 2008, and is relatively similar across unemployment durations. However, longer unemployment duration periods imply higher exit to inactivity rates, with those for the older people standing at about 25% if in STU, 30% if in LTU, and 32% if in VLTU, in 2012-2013.

The crisis had initially reduced exits to inactivity for both younger and older workers, but rates are on the rise again. For both age groups and for all unemployment durations, considerable reductions in exit rates to inactivity were observed from 2008 to 2010 with a further drop for both age groups in 2011, but only if in longer unemployment durations. By 2012, rates from unemployment to inactivity started to increase for all concerned groups, with the largest increases observed for those who had been unemployed between one and two years. This points to rising labour market discouragement following an unfruitful period of job searching. The latest available data for the period of 2013-2014 for 12 EU Member States suggests a continuation of this same trend, with further increase in inactivity rates for all groups and with the largest increase being among those unemployed for one to two years.

Yet again rising transition rates from unemployment to inactivity, merit further analysis. European Commission (2014f) attributed a drop of inactivity rates among the older workers to - among other influences - changing policy contexts (i.e. less accessible disability or early retirement schemes). Though drivers of recent changes are not necessarily policy related (e.g. demographic changes could also be important), the emerging evidence is pointing to at least some adverse effects of recent reforms. For example, a recent study suggests that the intensified ALMP efforts for youth (below 30) in Denmark may have contributed to increasing transitions into sickness benefits, heightening levels of inactivity, with limited additional effects on transitions to employment or education (Maibom, Rosholm and Svarer, 2014).

In terms of country of origin, third-country migrants were the worst off before the crisis and the hardest hit during the crisis. Mobile EU persons saw their fates matching those of the nationals of each country with their LTU rate

before the crisis being similar and relatively low but also increasing similarly during the crisis (Chart 16). However, the marked difference between mobile EU persons and third-country migrants highlights how much the country of origin can impact on labour market outcomes for individuals.

EU LTU rates tend to be higher in rural areas than in urban areas, which can be explained by differences in levels of economic performance, in industrial structure and the skills composition of their populations (European Employment Observatory, 2012) with those living in less densely populated areas being more at risk of LTU during the economic downturn.

2.5. The LTU changed over the crisis and are somewhat different from the STU

Even though both STU and LTU increased in the EU during the crisis, the characteristics of the LTU changed more significantly and have notable differences from those of the STU (Table 1). While the share of men and those on temporary contracts increased a lot among both STU and LTU between 2007 and 2014, the composition of those who were LTU changed over the course of the crisis and in 2014 they consisted of more third-country migrants, EU-mobile, low and high-skilled people and of those on temporary contracts (largest changes in grey highlight of Table 1).

Table 1: Characteristics of STU and LTU individuals over time: 2007, 2010 and 2014, EU-28

		STU composition (% of STU)				LTU composition (% of LTU)					
		2007	2010	2014	Change 2014-2007, ppt	2007	2010	2014	Change 2014-2007, ppt	Diff. in changes: LTU - STU	Diff. in 2014: LTU - STU
	Men	49.5%	54.1%	53.1%	3.6	50.9%	55.4%	54.3%	3.4	-0.1	1.2
	EU mobile	3.4%	4.1%	4.6%	1.2	1.7%	3.1%	3.7%	1.9	0.7	-0.9
	Third-country migrants	10.8%	11.7%	11.7%	1.0	7.0%	10.8%	12.1%	5.1	4.1	0.3
Age	20-24	22.1%	19.6%	19.3%	-2.8	11.9%	13.7%	12.6%	0.6	3.4	-6.7
	25-34	31.9%	31.0%	31.4%	-0.5	24.8%	26.5%	25.1%	0.3	0.8	-6.3
	35-44	23.3%	24.1%	22.9%	-0.4	25.1%	24.1%	24.5%	-0.6	-0.2	1.6
	45-54	16.2%	17.6%	18.0%	1.9	24.6%	22.8%	23.4%	-1.2	-3.0	5.4
	55-64	6.6%	7.7%	8.4%	1.8	13.6%	13.0%	14.4%	0.8	-0.9	6.0
Education	Low	32.6%	33.3%	30.4%	1.8	37.7%	42.2%	40.7%	3.1	1.3	10.4
	Medium	48.9%	47.1%	45.9%	1.8	51.4%	45.1%	43.2%	-8.2	-10.0	-2.7
	High	18.4%	19.6%	23.7%	1.8	10.9%	12.7%	16.1%	5.1	3.3	-7.7
Previous job	No previous employment experience	11.0%	9.6%	11.1%	0.1	17.0%	15.1%	18.0%	1.0	1.0	6.9
	A job of limited duration has ended	33.4%	34.8%	40.1%	6.7	17.1%	22.0%	24.2%	7.1	0.4	-15.9
	Dismissed or made redundant	26.1%	33.8%	26.0%	-0.1	29.7%	33.1%	30.7%	0.9	1.1	4.7

		STU rate (% of active population)				LTU rate (% of active population)					
		2007	2010	2014	Change 2014-2007, ppt	2007	2010	2014	Change 2014-2007, ppt	Diff. in changes: LTU - STU	Diff. in 2014: LTU - STU
	TOTAL	3.7%	5.4%	4.9%	1.2	3.1%	3.9%	5.1%	2.0	0.8	0.2
	Men	3.3%	5.4%	4.8%	1.5	2.9%	3.9%	5.1%	2.2	0.7	0.2
	Women	4.2%	5.4%	5.0%	0.8	3.4%	3.8%	5.1%	1.7	0.9	0.1
	Natives	3.5%	5.0%	4.6%	1.1	2.9%	3.6%	4.8%	1.9	0.8	0.3
	EU mobile	5.0%	7.5%	6.7%	1.8	2.0%	3.9%	5.7%	3.6	1.8	-1.1
	Third-country migrants	7.1%	10.2%	8.9%	1.8	3.7%	6.6%	9.7%	6.0	4.2	0.8
Age	20-24	9.5%	12.8%	12.3%	2.8	4.3%	6.3%	8.2%	3.9	1.2	-4.1
	25-34	4.7%	6.8%	6.5%	1.9	3.0%	4.1%	5.4%	2.3	0.5	-1.2
	35-44	3.0%	4.6%	4.2%	1.2	2.7%	3.3%	4.6%	1.9	0.7	0.4
	45-54	2.4%	3.7%	3.3%	0.9	3.0%	3.3%	4.4%	1.4	0.5	1.1
	55-64	2.0%	3.1%	2.7%	0.6	3.4%	3.7%	4.7%	1.2	0.6	2.0
Education	Low	5.1%	8.0%	7.6%	2.5	4.9%	7.2%	10.5%	5.6	3.1	2.9
	Medium	3.6%	5.2%	4.6%	1.0	3.2%	3.5%	4.5%	1.3	0.3	-0.2
	High	2.6%	3.7%	3.6%	1.0	1.3%	1.7%	2.5%	1.2	0.2	-1.1

Source: EU-LFS, DG EMPL calculations with contributions from Cedefop.

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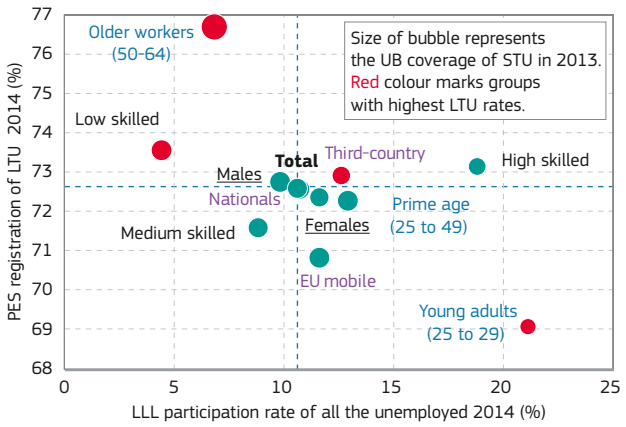
Differences between the LTU and STU have potential consequences for policy design. Within the total labour force, both STU and LTU increased for all groups, but among the third country migrants and the low-skilled, LTU increased much more than STU (highlighted in light green). In 2014 the older and low-educated parts of the labour force remain more at risk of being LTU than STU. Comparing the compositions of the two groups, more of the LTU consist of older, low-educated and inexperienced workers (but also less of the young, high-educated and those who were on temporary contracts). Furthermore, initial findings from Section 3.2 below indicate that, in terms of transitions back to jobs, the LTU benefit marginally more from receiving UB and PES registration than do STU, and almost equally as much from LLL participation.

As a result of the decline in economic activity in manufacturing and construction during the crisis, the occupations most affected by LTU were those employing unskilled, semi-skilled, craft and agricultural workers, although the impact varies between Member States depending on their national characteristics ([14]). Compared to the situation at the height of the financial crisis, the manufacturing sector has already regained much of its economic potential, as shown by the falling numbers of both STU and LTU in those areas of the economy. Market improvements in the construction sector have likewise led to some improvement for STU, but this has not yet reached the LTU.

Chart 18: Coverage of various LTU groups by type of policy intervention, 2014



Source: EU-LFS, DG EMPL calculations based on ad hoc extractions.

Notes: The policy interventions are as follows: PES coverage of LTU is the percentage of the LTU of a given group that is registered with the public employment service; UB coverage is the percentage of the LTU of a given group that is receives unemployment benefits or assistance; and LLL participation is the percentage of the total group (employed, unemployed and inactive) that have participated in lifelong learning or training in the last 4 weeks. No values available for PES coverage for Ireland and no values available for the Netherlands and Ireland regarding UB coverage. Unless otherwise specified, the age group for the PES registration and UB coverage is 20-64 and for LLL participation it is 25-64. For both PES registration and UB coverage 2013 value was used for Austria due to lack of data in 2014 and citizenship data was used for Germany instead of country of birth due to lack of data.

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3. Not casting the net wide enough: Policies to tackle LTU

Before examining the evidence concerning the policies and policy designs that appear to be best suited for combatting and preventing LTU, it is important to assess the coverage of the main policy tools available to policy makers. For this purpose, this section begins by examining the coverage/reach of active labour market policies (ALMP), including lifelong learning/training (LLL), and of unemployment benefits (UB).

3.1. Who is covered, where and how much

As regards the extent to which those who are LTU have access to, and benefit from, policy interventions, Chart 18 shows that, on average, almost three-quarters (73%) of the total LTU aged 20-64 are registered with the public employment service (PES), while little more than a third and a quarter of the STU and LTU, respectively, receive support in the form of unemployment benefits (STU: 38% and LTU: 25%) ([15]).

Moreover, just one in ten of those aged 25-64, regardless of labour status, report having received some form of lifelong learning (participation in education or training) in the previous four weeks. This has been shown to be a real lost opportunity, since Member States with the highest investment in, and coverage of, activation and support measures (ALMP, LLL/training and UB) were those that fared best in the crisis and had the highest levels of returns to employment (European Commission, 2014f).

Policy interventions do not cover all segments of the LTU population equally. Chart 18 shows that the older and low-skilled workers are most affected by LTU (red bubble), and that while these groups are covered most by the PES and unemployment benefits (EU average: 72%), but least by lifelong learning/training efforts (4-6% vs. 11% for the EU as a whole), a significant predictor of transitions from LTU to employment (Section 4.2). In contrast, young adults (25-29) are more likely to participate in training (21% vs. 11%) but are less likely to be registered with the PES and receiving unemployment benefits. The highly skilled, medium-skilled, male and female workers as well as prime aged workers (25-49) are all close to the overall EU average in terms of PES registration (72%) and STU UB receipt (41%), but the highly skilled unemployed are significantly more likely to be taking part in lifelong learning/training than the medium-skilled (18.8% vs. 8.8%) or the overall average (10.7%).

While this suggests that policy measures may be doing a good job of targeting efforts towards the parts of society hardest hit by the recession, it also shows that significant groups do not benefit from any of the policy interventions considered here and that, in particular, lifelong learning and training fails to reach those who appear to need it most. Also, while PES registration rates do not vary widely across population groups (as they do between Member States), gaps in coverage at the EU level are much larger for UB and LLL.

3.2. The quality of policy: The LTU do not profit enough from ALMP and UB

Active labour market policies (ALMPs) – such as wage subsidies to private firms and start-up grants, training programs to enhance the employability of the

([14]) DG EMPL calculations based on EU-LFS ad hoc extractions on the breakdown of the LTU by previous sector and occupation for the years 2007, 2010 and 2014.

([15]) It has to be noted, that the data on coverage of unemployment benefits only refers to the receipt of unemployment insurance and unemployment assistance, and it does not take account of other forms of income support, e.g. minimum income, they might be receiving. This is especially relevant for countries where the duration of unemployment benefits is limited to one year or less, and in which the long-term unemployed are de facto not covered by UB.

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Table 2: Transitions rates by duration and policy intervention in the EU-24 [all education, gender and age]

		2013->2014 (PES and UB) 2012->2013 (LLL)			Transition rates		
Age group, year	% of total LTU	LLL	PES registration	UB	LTU-> E	STU-> E	LTU->I
15-64, 2013	26%		x	x	13.8	31.4	33.2
	26%		✓	✓	25.1	40.4	19.0
	48%		✓	x	17.1	30.3	24.6
	1%		x	✓	n.a.	n.a.	n.a.
15-74, 2012	91%	x			30.6	33.8	42.1
	9%	✓			34.8	39.2	33.0

Source: DG EMPL elaborations based on EUROSTAT experimental EU-LFS flow statistics; latest available data and age split used; EU-24 is EU-28 without Belgium, Luxembourg, the Netherlands and Portugal.

unemployed, direct public employment programs and PES support services - are all crucial parts of a well-functioning labour market. Such measures ensure that the unemployed return to employment as fast as possible by providing them with the support they need to successfully re-enter the job market. Such actions help to enhance their employability; assist them with their job search; find the right job for their skill-set; and incentivise employers to hire them. Overall, ALMPs have been shown to help speed up the return of the unemployed to employment (European Commission, 2014f and Kluve, 2010). Emerging evidence also shows that in the recent recession, countries with a strong activation approach, as Austria or the UK, succeeded in keeping the unemployed active on the labour market and thus experienced mainly modest increases in unemployment (OECD, 2015). Furthermore, it highlights that ALMPs have been effective even during times of economic downturn and low labour demand.

Income support, whether in the form of unemployment benefits (UB) or other welfare support, help ensure that the unemployed are financially supported in their period of job search and ALMP participation, and help maintain their employability. From a broader policy perspective, they also stabilise aggregate demand while ensuring that those affected are not pushed into poverty and social exclusion.

Income support provided to the STU, if well designed, can have an impact on the LTU stock, by allowing the STU to focus their attention on finding a job that matches their abilities. It may thus provide the STU with a higher likelihood of finding a job sooner i.e. before they become LTU. In other words, policy effectiveness in tackling the stock of LTU rests not only on policy interventions for the LTU, but also on actions for the short term unemployed.

Unemployment benefits and ALMP, in particular training and PES support, appear to have a positive impact on combatting LTU (transition from LTU to employment), preventing LTU (from STU to employment) and on ensuring the LTU do not stop searching for jobs and remain active (from LTU to inactivity). Table 2 highlights this by mapping out the three transition rates according to the policy interventions received.

Those who received any of the listed policy interventions, both LTU and STU, had higher transitions to employment and lower transitions of the LTU to inactivity. The only exception were the STU who were registered with the PES but were not receiving UB, with their transition rate to employment being marginally lower than those STU who were neither registered or receiving UB. This goes in line with the European Commission (2014f) findings indicating that transitions from STU to employment are positively correlated with UB coverage rates. Additionally, this could be an indication that receiving UB for the STU is of even higher importance than for the LTU who may anyways be relying on other forms of income replacement, as in the form of social assistance ([16]).

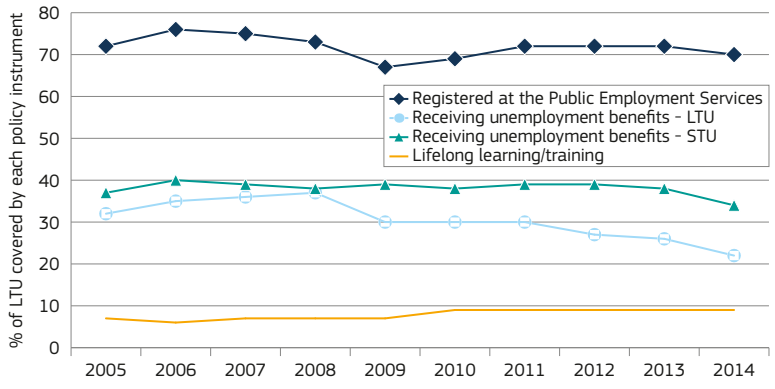
The most substantial difference concerns people that were both PES registered and receiving unemployment benefits, who had 11ppts higher transitions from LTU to employment compared to those who received neither intervention, 9ppts higher transitions from STU to employment and 14ppts less chances of going from LTU to inactivity. Those that received some kind of education or training also had consistently better transitions than those who did not.

([16]) This is additionally substantiated by the fact that in 2014 UB coverage rates and lifelong learning participation seem to have a much stronger relationship in the case of those who are STU (r= 0.41, r^2= 0.16) than for those who are LTU (r= 0.23, r^2= 0.05).

Initial findings indicate that providing UB and PES services to LTU has a greater effect than providing them to the STU, and that they almost equally benefit from receiving LLL. Transitions to employment of those receiving UB and being PES registered compared to being neither are higher for the LTU than for the STU (+11ppts vs. +9ppts). Similarly, participation in LLL has almost an equally high impact on LTU (+4ppts) as it does on the STU (+5ppts). These charts suggest that targeting the LTU with policy interventions is indeed a worthwhile investment and go in line with the recent research evidence that even in times when "there are no jobs" labour market policies can have a large impact on re-employment chances (OECD, 2015).

During the crisis, lifelong learning/training and registration with the Public Employment Services have increased overall, while the coverage of unemployment benefits started to decrease in the later years (Chart 19). The proportion of LTU who enhanced their employability during the crisis by participating in some form of training or education has continually increased. On the other hand, unemployment benefit receipt and registration with the PES by the LTU saw more variation over the same period. Coverage by both fell in the first year of the crisis, most probably due to the sharp increase in the numbers of LTU. Registration with the PES improved continuously from 2009 onwards, but has seen a substantial drop in the most recent years. Registration with the PES, which is the typical initial prerequisite for policy intervention, varies greatly across Member States and education levels, arguably due to national policy settings. The same is true of ALMP participation of all of the unemployed which varies from 3 persons per 100 persons wanting to work (Croatia)

Chart 19: Evolution of LTU coverage by PES, unemployment benefits and lifelong learning/training in the EU, 2005-2014



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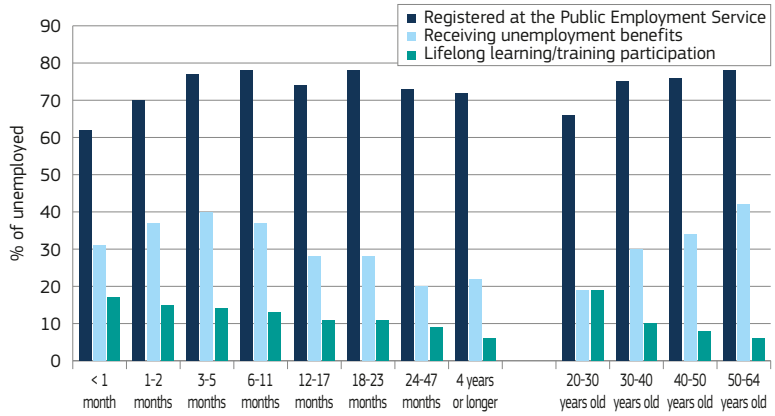
Source: EU-LFS, DG EMPL calculations. Reference age group is 20-64. The "no answer" category was not included in the calculations. PES registration values for Ireland are missing. For unemployment benefits no data is available in the case of Ireland and the Netherlands. For Austria 2013 value was used for 2014 due to lack of data.

Chart 20: Evolution of PES registration, unemployment benefit coverage and participation in lifelong learning (education and training) by age and unemployment duration, 2014



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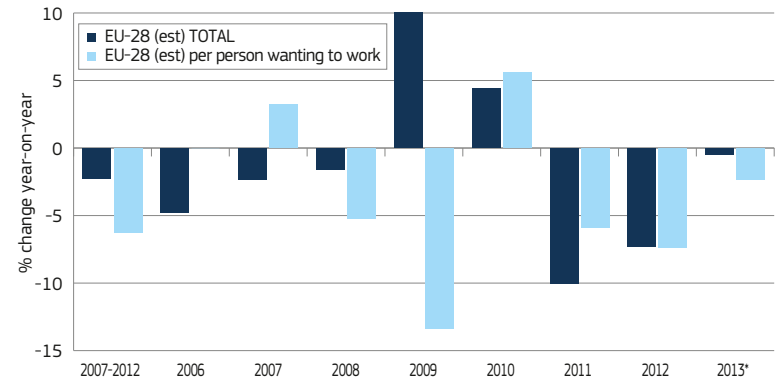
Source: EU-LFS, DG EMPL calculations. No answer replies were not included in the calculation. No values available for PES coverage for Austria and Ireland and no values available for Austria, the Netherlands and Ireland regarding UB coverage in 2014.

Chart 21: Total ALMP expenditure (categories 1-7) year-on-year growth in real terms, for EU-28 (2006-2013)



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Source: Eurostat, LMP database.

Notes: EU-28 estimate used based on DG EMPL calculations. Due to missing data, for the United Kingdom and Greece 2010 value used for 2011-13, and for Spain, France, Cyprus, Malta and Romania 2012 value used also for 2013. Croatia was excluded from calculation due to only having 2012-13 values available.

to 55 persons per 100 persons wanting to work (Luxembourg) ([17]).

The level of support through UB given to the STU and LTU remained more or less constant at the onset of the crisis (2009-2011), but then began to fall as public spending began to tighten.

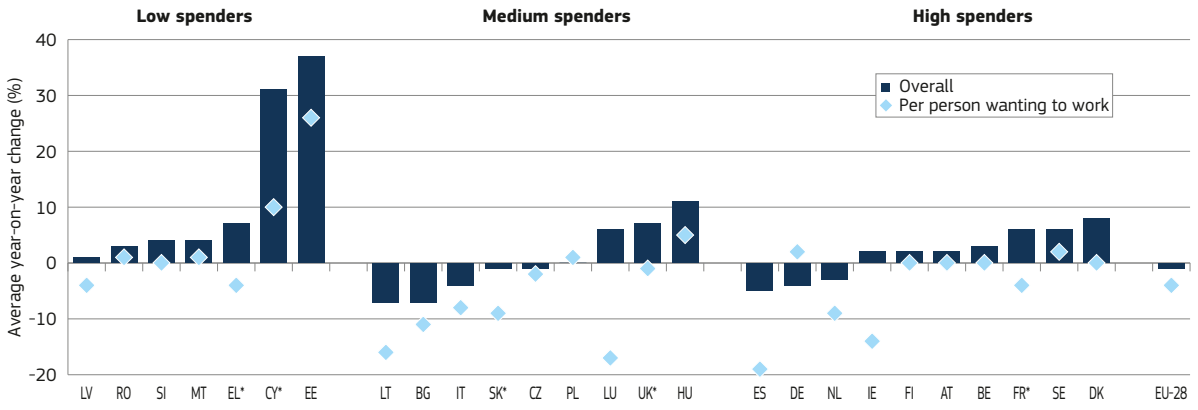
Coverage of the unemployed by various policy interventions varies with the duration of the unemployment spell and the age of the unemployed person. PES registration tends to increase with duration and age, while participation in lifelong learning tends to decline with duration and age (Chart 20). The receipt of UB generally rises in the first five months of unemployment but starts declining thereafter, reflecting the most common design. UB receipts increase with age, reflecting the capacity of older workers to fulfil the eligibility criteria, notably in terms of contribution history. All of these findings could well contribute to explaining why transition rates from LTU to employment decline with duration.

Across the EU as a whole, most ALMP expenditure goes on supply side policies, with 59% being devoted to PES and training, but with the proportion being spent on training increasing (European Commission, 2014f). In terms of specific types of active labour market policies, considerable divergence exists between Member States. The overall total spending on ALMP in the EU-28 seems to have followed the unemployment trend in the initial phase of the crisis in 2009 and 2010 but then, due to fiscal constraints, it reduced in the second phase of the crisis (Chart 21, dark blue bar).

After 2009, spending was not always aligned with the increase in the number of those out of work, as shown by the erratic evolution of expenditure per person looking for work. The analysis of growth of ALMP expenditure in real terms from European Commission (2014f) suggests that Member States which had high levels of spending on ALMP prior to the recession (e.g. Germany, Belgium, Ireland, Austria, Finland, France, Netherlands, Sweden and Denmark) weathered it better than others. However, European Commission (2014f) and Badea and Xavier (2015), also suggest that the evolution of ALMP

([17]) Data is based on Eurostat-LFS data for 2012 [lmp_ind_actsup].

Chart 22: Annual real growth of total and per person wanting to work ALMP expenditure (categories 1-7), per Member State grouped according to level of spending (% of GDP in 2007), 2007-2012



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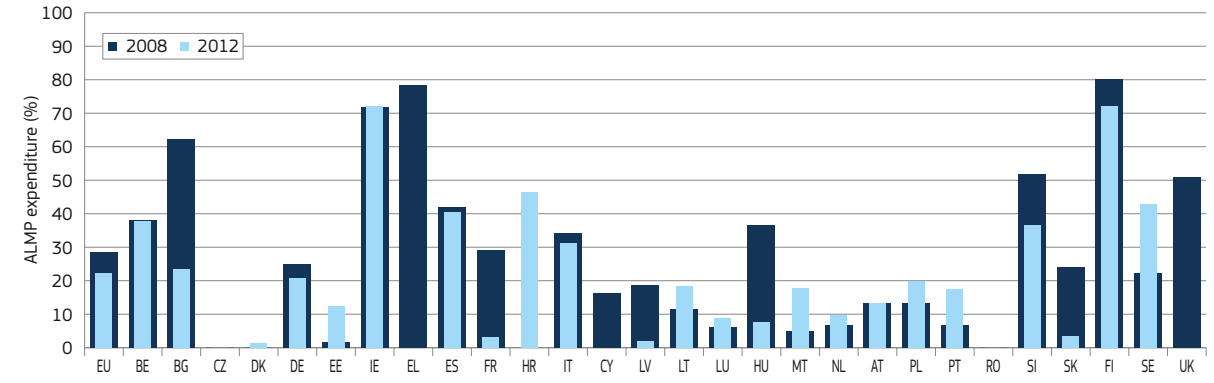
Source: Eurostat, LMP database. DG EMPL calculations of EU-28 average value.

Notes: EU-28 aggregate estimated by using, due to missing data, for the United Kingdom and Greece 2010 value for 2011-13, and for Spain, France, Cyprus, Malta and Romania using the 2012 value also for 2013, and excluding Croatia. Croatia and Portugal not included due to lack of data and breaks in series. *Due to breaks in series, for Greece, France and the United Kingdom 2007-2010 averages used instead of 2007-2012, for Slovakia 2008-2012 period used, and for Cyprus the 2007-2011 period was used.

Chart 23: Proportion of expenditure on ALMP measures (categories 2-7) targeted at LTU (%), 2008 and 2012



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Source: DG EMPL, LMP database (own calculations).

Note: Data not available for HR in 2008 or for EL, CY and UK in 2012; CZ and RO real zeros in both years.

expenditure during the recession did not always match movements in unemployment or their scale.

The most recent data appears to be in line with these findings (Chart 21). For EU-28 as a whole, there was a decrease in both overall and relative (per person wanting to work) year-on-year ALMP expenditure in real terms over the 2007-11 period (-1.3% and -4.3% respectively), driven particularly by reductions in spending on training (European Commission, 2014f).

Following the pre-crisis period, Member States with low expenditure levels did begin to spend more on ALMP both overall and in proportion to the number of persons wanting to work (Chart 22). But many Member States did not see their ALMP expenditure move in line with their labour market developments, with some who saw their unemployment rates increase reducing both overall and relative ALMP expenditure between 2007 and 2012 (e.g. Bulgaria, Spain, Italy, Slovakia and Lithuania).

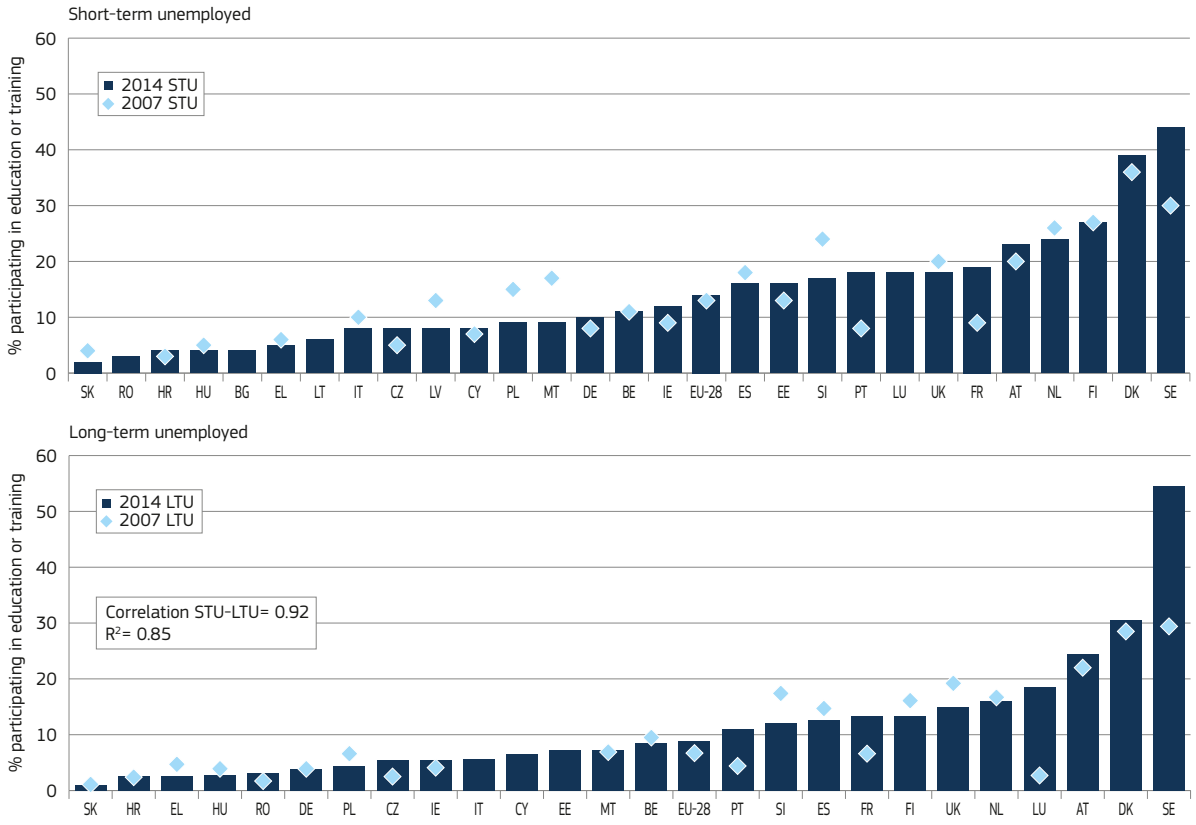
Just over a fifth of total expenditure on ALMP measures is targeted at the long-term unemployed in the EU (excluding Greece, Cyprus and the UK), based on 2012 data ([18]). Although ALMP interventions support a wider group than just the unemployed (for example those who are formally considered to be inactive but want to work), the unemployed – particularly those registered with the public employment services (PES) - are the primary target group for ALMPs.

The situation varies considerably between Member States. The proportion of targeted expenditure varies from 0% in the Czech Republic and Romania (in neither case are ALMP measures reported as being targeted at the LTU) to 72% in Ireland and Finland (Chart 23). The latter two Member States are the only ones to target more than half of their ALMP expenditure on the long-term unemployed, while more than half of the Member States for which data is available target less than a fifth of their expenditure on the long-term unemployed (Table 3).

Of the ALMPs, participation in education and training is strongly associated with transitions from STU to employment (European Commission, 2014f). Member States with higher levels of participation, by the whole population, also show higher levels of competitiveness.

([18]) The LMP database includes comprehensive qualitative information about each intervention, including details of the specific groups at which the intervention is targeted. Using this information it is possible to identify the amounts spent on interventions targeted at the long-term unemployed compared to those targeted at other specific groups or open to all unemployed. Note, however, that interventions may be targeted at more than one group so that the fact that an intervention includes long-term unemployed amongst its target groups does not necessarily mean that a high proportion of participants are long-term unemployed (see further below).

Chart 24: Participation in education and training (in the last 4 weeks) by duration of unemployment, 2007 and 2014



Source: DG EMPL calculations based on EU-LFS. Values for 2007 STU are of limited reliability for SK, HR, CY, MT and EE, and also for 2014 for SK, RO, HR, BG and MT. Values for LTU are of limited reliability for 2007 for HR, PL, SI and LU, and also for 2014 for HR, HU, IT, EE and SI. Values missing for 2007 STU for BG, LT and LU; 2007 STU for IT, CY, EE, BG, LT and LV; and 2014 LTU for BG, LT and LV.

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Table 3: Groups of Member States by proportion of expenditure on LMP measures targeted at LTU

0%	CZ, RO
<10%	DK, FR, LV, LU, HU, NL, SK
10-20%	EE, LT, MT, AT, PT
20-30%	BG, DE, PL
30-40%	BE, IT, SI
40-50%	ES, HR, SE
>50%	IE, FI
Unknown	EL, CY, UK

Source: DG EMPL, LMP database (own calculations).

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More of the EU's unemployed are taking part in training and educational activities in 2014 than they did prior to the crisis in 2007 (Chart 24). The STU participate more in training and education activities than the LTU, but both have increased their participation over the years. Nevertheless, this varies considerably between Member States with just under half seeing their unemployed population receive less education/training, the strongest examples being Germany and Poland. On the other hand, the overall growth in participation at EU level is largely fuelled by significant increases in Spain and France.

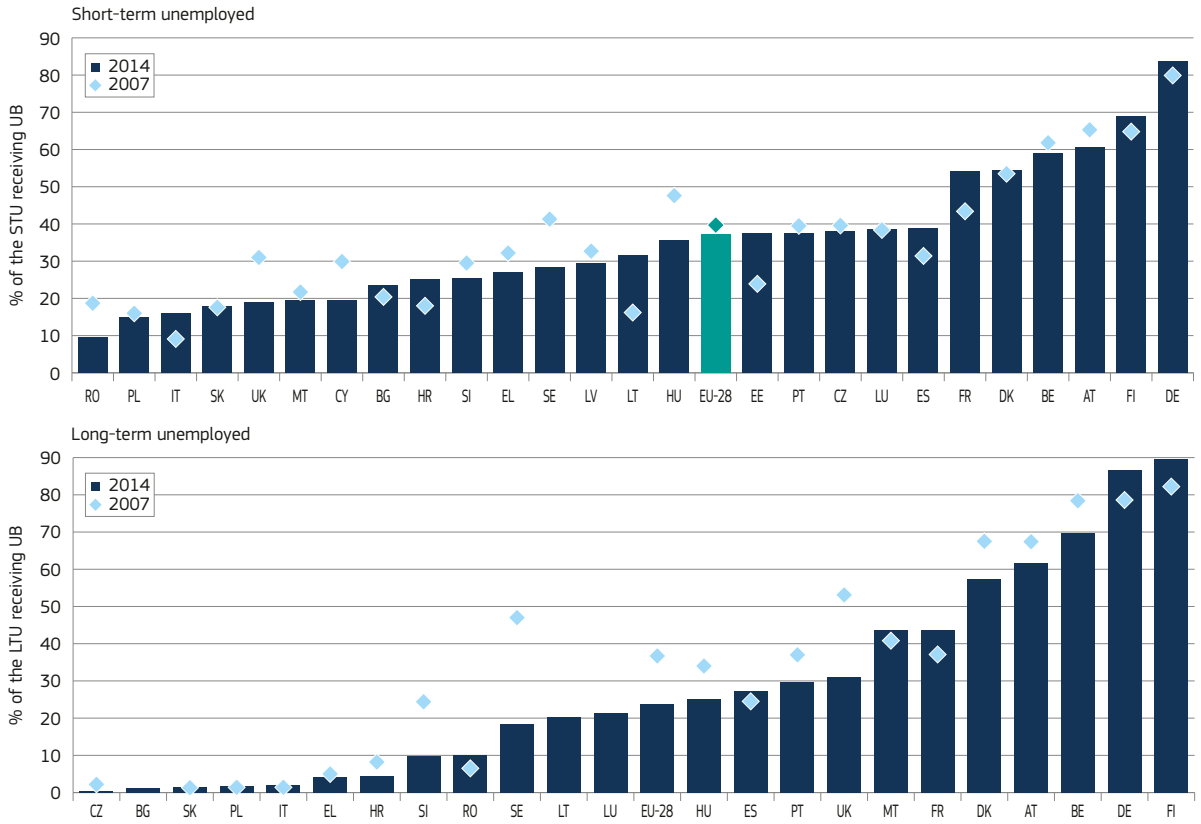
The level and efficiency of the support provided by unemployment benefit schemes depends on their design and the degree to which they are conditional on engaging in activation measures. Higher coverage of unemployment benefits correlates positively with LTU prevention (European Commission, 2014f). Low coverage and benefit rates not only reflect a lack of effectiveness of the benefits scheme in protecting people against income shocks, but also have a limited stabilisation impact on the economy.

Fewer STU and LTU received unemployment benefits in 2014 than they did before the crisis. The percentage of the unemployed covered by unemployment benefits varies greatly across Member States but the EU level average currently covers just 24% of the LTU, down from pre-crisis levels of 37% (Chart 25). Member States with the most generous length of unemployment benefits, such as Belgium, Germany and Finland, saw increased take-up by the unemployed, with increased usage by the long-term unemployed, possibly due to both becoming aware of the possibilities, and the need to utilise them, due to their prolonged period of unemployment.

Support for the unemployed in their job search before they become LTU is crucial in preventing them from falling into inactivity. The drop in UB coverage of the STU and LTU between 2007 and 2014 indicates that policy effectiveness and reach has not improved in the EU (due to the increased number of unemployed and budgetary constraints), with around half of the Member States now offering less support for their unemployed than when economic circumstances were more favourable.

In most Member States the duration of unemployment benefits for people with the lowest levels of entitlement (due to limited periods of contribution, type of contract or age) has not changed since the onset of the recession. Nevertheless, in some Member States (Ireland, Portugal, France and Netherlands) the minimum duration for the most vulnerable and those with the lowest entitlement was further reduced (Chart 26). Only in Italy was the minimum duration of unemployment benefits extended for the most vulnerable categories.

Chart 25: Unemployment benefit coverage of short-term and long-term unemployed, 2007 and 2014



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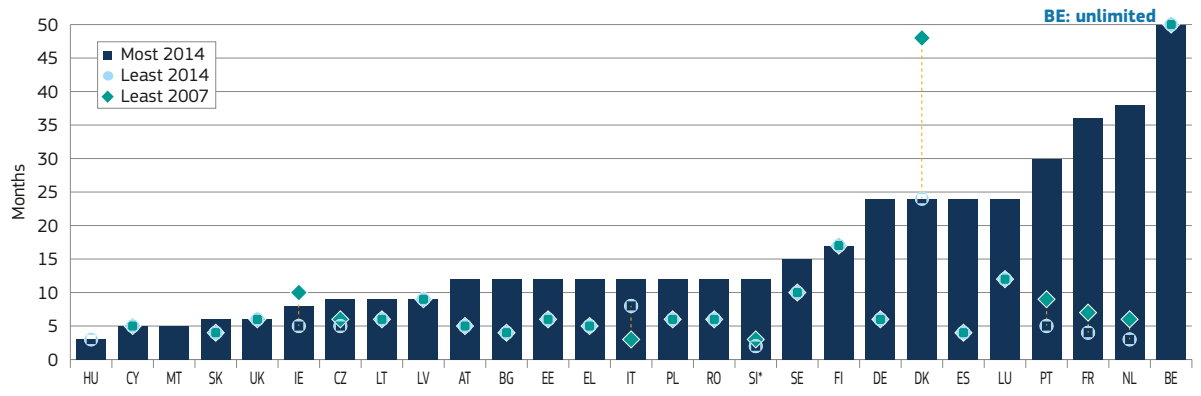
Source: DG EMPL calculations based on EU-LFS.

Notes: Ireland and the Netherlands: not covered and no values available for Cyprus, Estonia and Latviafor LTU for either year nor for Bulgarian, Lithuania or Luxembourg for 2007. STU stands for short-term unemployed (less than 12 months) and LTU stands for long-term unemployed (unemployed 12 months or more). The 2013 value was used for 2014 in the case of Austria for LTU and STU. Values for Czech Republic, Bulgaria, Slovakia, Poland, Croatia, Slovenia and Luxembourg for LTU are of limited reliability, as well as for Lithuania in 2007 for STU. * The coverage rate is the ratio of the unemployed who received unemployment benefits or assistance and those who did not receive them in each category of unemployment duration (STU and LTU).

Chart 26: Maximum duration for the least and most entitled groups of unemployed, 2007 and 2014



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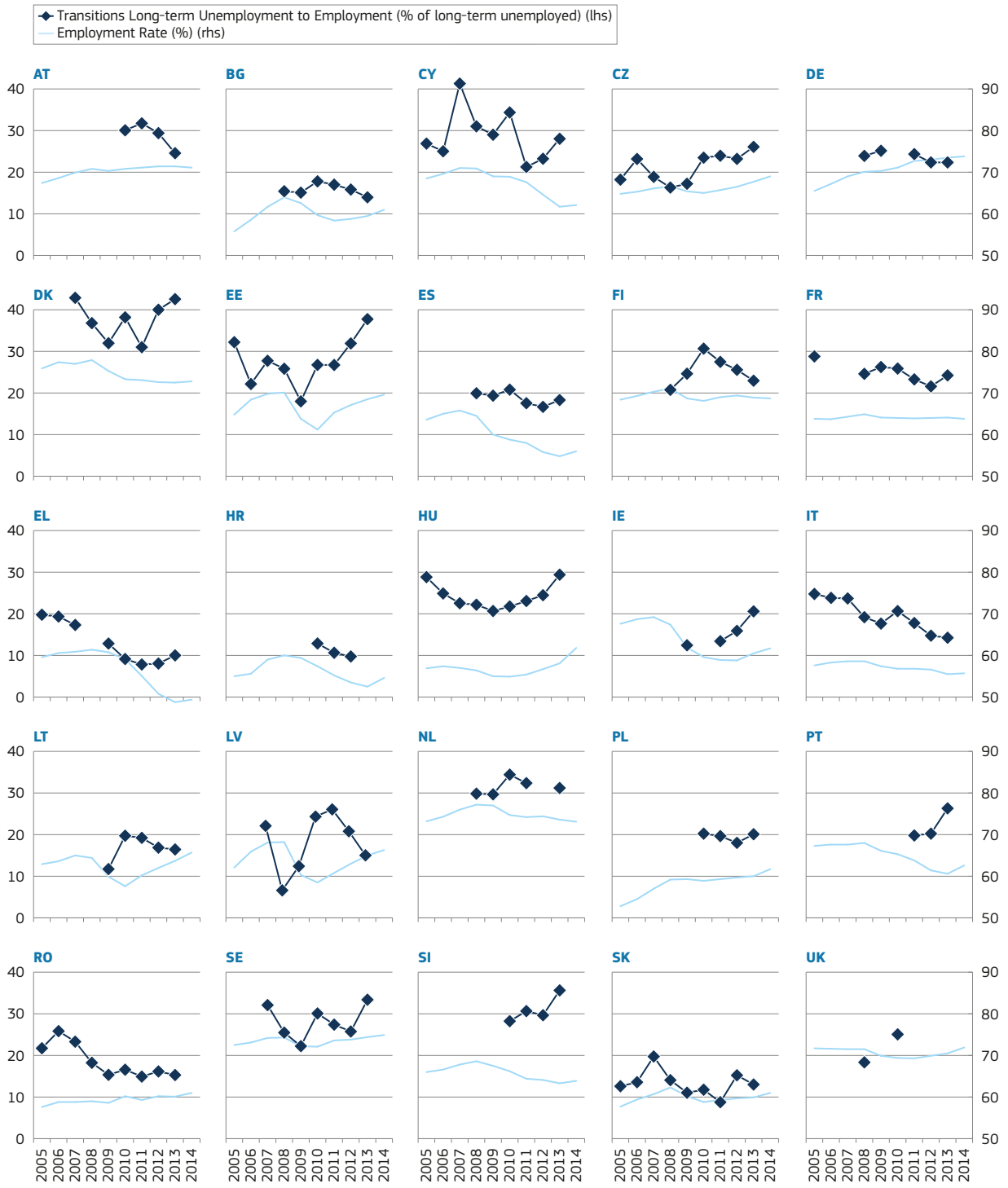
Source: MISSOC.

Notes: When calculating the minimum duration the longest duration for the least entitled group was taken, whereas for maximum the longest specified duration for the most entitled group was taken, not including those with disability status or with special status due to being over the age of 55. *Note that in the case of Slovenia the minimum duration has changed due to a new category being introduced so coverage of least entitled actually increased.

The low coverage of unemployment benefits is a direct consequence of eligibility criteria linked to duration of unemployment which, in most Member States, results in the LTU having less access than the STU. While this may be an incentive for the STU to make the most of the support provided in the early stages of unemployment, at a time of low labour demand and rising levels of LTU it risks having a negative impact on the ability of a policy to reach the LTU, unless they receive other types of support linked to activation measures, such as social assistance.

Chart 27: LTU transitions to employment and employment rates



Source: DG EMPL elaborations based on EUROSTAT experimental EU-LFS flow statistics and EUROSTAT series on employment, reference to population aged 15-64 years.

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4. WHAT WORKS? THE SPECIFIC ROLE OF POLICIES AND INSTITUTIONS

This section aims to better understand the specific role of labour and social policies in facilitating transitions to employment of the long-term unemployed. Few studies have analysed determinants of transition rates, especially from a cross-country perspective, in part due to the lack of the necessary longitudinal data. The question is nevertheless highly relevant given some emerging empirical evidence concerning the contrasting policy effects that can be expected on unemployment and on job finding rates (e.g. Petrongolo, 2009; Bradbury, 2014).

The section builds on and extends analysis on drivers of transition rates from employment to STU and LTU and vice versa, as in European Commission (2012a). The latter study was carried out on the basis of data for 2005-2010, with a limited number of control variables pertaining to population groups for which transition data was available (i.e. age, gender, educational level, registration to PES or benefit receipt). The analysis presented evidence that having a higher education level facilitates job finding both among STU and LTU. Transition rates for men were found to be higher than for women in both finding employment and

entering unemployment. Regarding policy effects, the analysis pointed to a particularly positive and significant effect of training for LTU return to employment. Receiving unemployment benefits was observed to be associated with higher transition rates from both STU and LTU, while being registered with PES was not found, in itself, to be very supportive in finding employment ([19]).

This analysis focuses on drivers of transitions from LTU to employment, taking simultaneous account of more diverse population characteristics as well as various socio-economic factors and policy effects, and doing so over a relatively longer time span (2005-2013). As such, it both re-examines previous findings and presents new evidence on the ways various individual and macro-level determinants co-influence higher or lower chances of LTU returns to jobs.

This section first maps the potential role of determinants included in the regression analysis. It reviews the overall role of the macro-economic situation, labour market policies and country effects, and also highlights the existing literature evidence about the effectiveness of individual labour market policy tools. ALMP and PES, LLL and EPL policies are explored in detail with the effects of factors such as personal characteristics being highlighted when considering the effectiveness of policy interventions ([20]). It then employs regression analysis to provide new insights on the effectiveness of various policy interventions and of individual characteristics on LTU transition rates to employment, while taking into account differences in other factors such as economic growth and national level differences. Finally, the discussion of results highlights the most effective policy interventions, with a particular focus on the policies that help those with the least chance of finding jobs (i.e. younger and older workers, low-skilled, etc.).

4.1. Helping the LTU return to employment: existing evidence

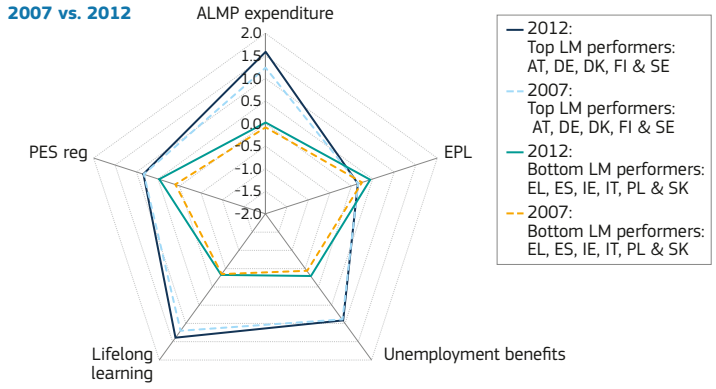
Transition rates from LTU to employment are increasing in some Member States but continue to decrease in others against the background of the slight overall improvement in total employment rates in recent years (Chart 27). In nine Member States, increasing employment rates are associated with rising transitions to employment.

In some Member States, however, transition rates to employment continue to decrease, despite the overall employment situation remaining generally steady (i.e. Austria, Finland) or improving overall (i.e. Lithuania, Latvia). A number of factors may explain why employment growth does not translate into higher job finding rates for the LTU, such as individual characteristics, policy design and within country sectoral and regional developments (Baussola and Mussida, 2014). For example, Kroft, Lange, Notowidigdo and Katz, (2014) demonstrate that both negative duration dependence and transitions to (and from) inactivity largely explain stagnating LTU numbers in a time of employment growth in the United States. Similarly, Krueger, Cramer and Cho (2014) note that, in comparison with STU, the job finding rates of the LTU are less sensitive to the business cycle, even though their labour force withdrawal rates are.

The combination of different policy mixes rather than individual policies are seen to account for differences in labour market outcomes across the Member States. As indicated in European Commission (2014f), Member States with the highest investment in activation and support measures are those that fare best in terms of ensuring transitions out of short-term unemployment and movements from temporary to permanent contracts. Chart 28 confirms this message and shows that the best chances of finding steady jobs are observed in the Member States with the most developed, and effectively balanced, sets of labour market institutions. The best performers combine higher spending in ALMP, stronger activation conditionality, a higher participation in lifelong learning and higher coverage and adequacy rates with respect to unemployment benefits than Member States with the lowest labour market performance.

The same is true for both preventing and fighting long-term unemployment. As shown in Chart 29, Member States with the highest prevention of LTU (i.e. lowest transition rates from STU to LTU) also have the highest job finding rates by the LTU. These Member States are assigned the highest LMII scores, due to their extensive and comprehensive coverage of unemployed by diverse social and labour market policies.

Chart 28: Labour market institutions index (LMII), average for the top and bottom labour market performers, 2007 and 2012



Source: ALMP and UB spending data from Eurostat LMP database, Lifelong learning data from Eurostat (trng_lfs_02), data on opinions of managers (part of LLL component) is from the IMD WCY executive survey and IMD World Competitiveness Yearbook 2012, eligibility requirements and job search conditionalities for unemployment benefits are from Venn (2012) and the EPL index is from the OECD database.

Note: The labour market institutions index is a composite Z-score index of EPL (permanent contracts and gap between permanent and temporary contracts v3), ALMP (expenditure in% of GDP and activation conditionalities), lifelong learning (participation rates of total population in education and training and opinions of managers about skills from IMD WCY executive survey) and unemployment benefits (expenditure per person wanting to work in PPS, eligibility criteria and coverage). 2008 EPL values were used for 2007 due to availability of data. The EPL values were all turned into negative values so that the lowest EPL gap and lowest EPL value for permanent contracts had the highest Z-score. The eligibility requirements (part of UB indicator) and job search conditionalities for unemployment benefits have only 2012 data available in both years. The UB spending for 2012 uses 2011 values, except for EL and UK for whom 2010 values are used. The mean value in 2012 for each indicator is that of the 2007 scores in order to be able to compare the 2012 scores with those of 2007. For 2012 ALMP expenditure 2011 values used for CY, ES, IE, LU, MT and PL, and 2010 values used for EL and UK. For EPL in 2007 for EE, LU and SI, 2008 values were used. Transitions data unavailable for Belgium, Luxembourg, Malta, the Netherlands and the United Kingdom, and thus not included.

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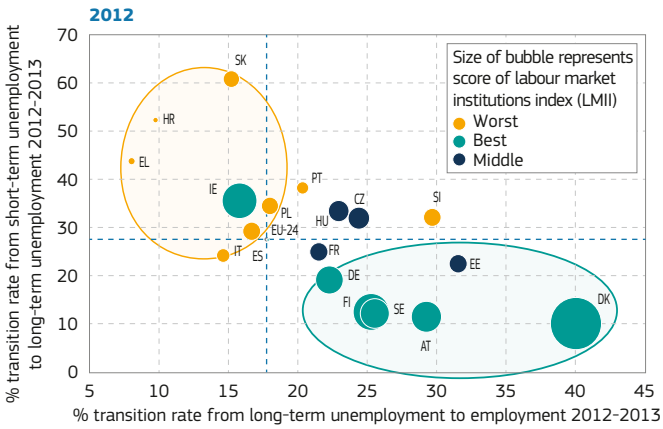
([19]) The impact of PES is explored further in the Section 4.2, on the basis of more in-depth analysis.

([20]) The reviewed list of factors is certainly not exhaustive and rather reflects the chosen focus and scope of this analysis.

Chart 29: Transitions from STU to employment and from LTU to employment (2012-2013) and the Labour Market Institutions Index scores* (2012)



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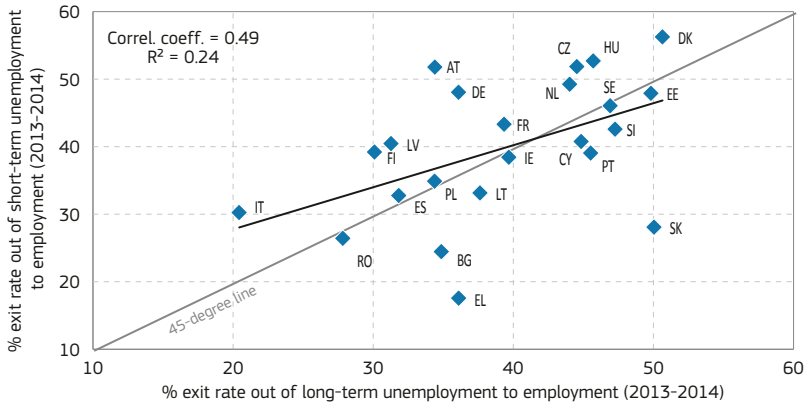
Source: DG EMPL elaborations based on EUROSTAT experimental EU-LFS flow statistics.

Notes: *The LMII in this chart does not include the score for PES registration. Reference population group for transition rates is 25-64 years; blue line marks the EU average. Index scores missing for Bulgaria, Cyprus, Lithuania, Latvia, Malta and Romania. Transitions data unavailable for Belgium, Luxembourg, Malta, the Netherlands and the United Kingdom, and thus not included.

Chart 30: Exit rate from short-term unemployment and long-term unemployment from 2013 to 2014



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Source: Transition rates are ad-hoc experimental EUROSTAT calculations on the basis of EU-LFS longitudinal data.

Notes: Reference population group is 15-74 years; information only for Member States with available data.

EU Member States differ in the effectiveness of their LTU reintegration. Prevention of long-term unemployment is primarily dependent on stemming the inflow of individuals into unemployment and ensuring the quick return to work of the unemployed. In this respect, a dynamic labour market and policies that prevent the inflow into unemployment (e.g. short-term work arrangements; sheltered employment subsidies) have been shown to be important in preventing unemployment from becoming structural.

While the economic cycle largely explains changes in levels and flows into and out of employment, a number of other factors account for country differences. An effective social and labour market policy mix in Member States such as the Netherlands, Sweden and Finland ensure high transition rates back to employment, while the opposite holds in Member States that are less successful in this respect (for instance, Slovakia, Greece and Bulgaria) (European Commission, 2012, 2014).

Generally speaking Member States with high exit rates from STU to employment have high exit rates from LTU (Chart 30). However, in Member States such as Germany and Italy long-term unemployed workers have much lower chances of returning to work, despite the fact that a high share of the short-term unemployed manage to do so. This could indicate fundamental skill deficiencies of the LTU in these Member States, greater labour market barriers, or insufficient policy efforts to reintegrate the LTU due to the costs and investments required.

The effect of ALMP policies on employment has larger long-term than short-term effects, with higher effectiveness achieved by certain policy designs. Based on Kluve (2010) observations from meta-analysis, most ALMP measures (with the exception of direct public employment programs or programs targeting young people) have a modest to high likelihood of producing a significant positive impact on employment rates. Filges, Smedslund, Knudsen, and Jørgensen (2015) finds that ALMP programmes combined with unemployment benefits, regardless of type, tend to mean that the unemployed participating in ALMP will have more than a 50 % greater chance of finding a job than a non-participating unemployed person. The most recent meta-evaluation of ALMP policies around the world by Card, Kluve and Weber (2015) confirms the varied employment effectiveness due to programme design and highlights the role of timing. This study notes that impacts of interventions become more positive two to three years after the completion of the program, with the larger gains being observed for programmes emphasizing human capital accumulation. Furthermore, ALMPs are found to be more likely to show positive impacts in a recession, a finding also highlighted by the OECD (2015).

PES services such as job search assistance have been found to have a positive impact on the chances of the unemployed to find employment, even in the short-run (Card, Kluve and Weber, 2010). Higher PES effectiveness is linked not only to wider coverage, but also to better quality service. Based on a study by Irving, Bianchini, Manoudi, Metcalfe et al. (2015), average caseloads per PES worker across the EU countries vary from 160 (Flanders, Belgium) to over 2600 (Spain) clients annually. The study shows that the design of service provision is of utmost importance for effectiveness as well. Custom-tailored approaches to handling cases, sufficient and quality time spent on a case increase re-employment potential. Evidence based on national PES evaluations shows that general programmes are not very effective given the heterogeneity of LTU jobseekers ([21]).

([21]) 'PES approaches for sustainable activation of long-term unemployed', Pôle Employ, Peer Review Bulgaria, April 2014. The publication is commissioned by the European Community Programme for Employment and Social Solidarity (2007-2013).

Targeted approaches, which are particularly relevant for people with lower access or knowledge of information and communications technology (i.e. people with migration background, elderly or lower educated people) however, require more and better trained case managers in the PES centres (Spermann, 2015). Other design features bring gains too. For example, in the context of differing regional developments, PES with devolved autonomous decision making powers are seen as more able to respond expediently and appropriately (Manoudi et al., 2014).

Education and training have been found to have a positive impact on the return to employment. In his analysis of 137 program evaluations across 19 EU and EFTA states, Kluve (2010) finds that training programs have a 'modest likelihood of generating a significant positive impact on post-program employment rates'. With a more expansive dataset, including 6 other non-EU/EFTA countries, Card et al. (2010 and 2015) find that training has small short-term effects but that it has a larger impact in the medium- or longer-term. Card et al. (2015) also find that training programs are especially effective for the LTU during an economic downturn. Osikominu (2013) shows that short-term training reduces the time in unemployment and moderately increases job stability, whereas long-term training initially prolongs the time in unemployment, but after completion enables participants to exit to employment at a much faster rate than without training (Osikominu, 2013). The participants of longer training programmes are also found to enter more stable jobs and have higher earnings. Overall, the study notes that long-term training programs are highly effective in supporting the employment chances of those with generally weak labour market prospects.

Targeting education and training at the young or older workers reveals mixed and country-specific results. Several large studies have found that training programmes targeting younger workers tend to be significantly less effective than non-targeted programmes (Kluve, 2010; Card et al., 2010) and that the same tends to be true of older workers (Card et al., 2010). However, this does not mean that the older workers are unable to acquire new skills (Picchio, 2015; Zwick 2012). A large meta-analysis of 200 recent econometric evaluations highlighted that, while training programmes are overall effective in helping the unemployed find employment, young people seem to benefit even more in the short-term, but that both young and older workers tend to benefit less than the average in the medium- and long-term (Card et al., 2015).

Evaluations in Germany indicate that low educated youth are particularly disadvantaged and that mere education participation for low educated youth has no effect on employment (Caliendo et al., 2011), while a more recent evaluation of an innovative programme combining coaching, training and temporary work indicated that for this target group design is key for positive results (Ehlers, Kluve and Schaffner, 2012). In this respect it is argued that it is important to recognise that young workers and older workers are complementary policy targets and not competing groups for employment. In fact, evidence points to increasing employment of older workers leading to more jobs for younger workers (Boheim, 2014).

It is often argued, albeit often on the basis of deductive reasoning, that employment protection legislation is liable to create incentives for workers and firms to invest in existing employment relationships and that, by making dismissals more costly, it may deter hiring with potentially detrimental effects on LTU (Young, 2003). In line with this, high and uniform levels of employment protection can lead to insider-outsider dynamics on the labour market, creating barriers to the re-integration of the long-term unemployed. Higher EPL can reduce the number of new hirings, especially in cases of longer than average unemployment spells and higher rates of LTU and can lower employment expansion (Berger and Danninger, 2014), thus keeping LTU high following a crisis.

In practice, the evidence of EPL impact on employment and transitions out of unemployment is often not-conclusive, especially if referring to times of low labour demand (ESDE 2014). Some Member States with high EPL also have both high employment rates and good transitions from LTU into employment - pointing to interactive influences of many factors (e.g. Denmark and the Netherlands). Moreover, during times of low labour demand, EPL reform has not been found to have had an impact on transitions in the short- to medium-term (European Commission, 2014f), with some studies signalling that reducing EPL may result in more dismissals than hirings (OECD, 2013b; ILO, 2014). While EPL alone cannot explain labour market outcomes, research by Fabrizi and Mussida (2008) suggest that, if more flexible labour market legislation facilitates the return of the short-term unemployed to employment, it has little impact on the chances of the long-term unemployed finding jobs.

The effectiveness of policy interventions vary by country and depending on the characteristics and behaviour of both workers and employers. For example, research by Rosholm (2014) points to the lower impacts of PES policy interventions for the low-skilled unemployed, whereas more substantial ALMP impacts are observed for females and long-term unemployed (Card et al., 2015). Caliendo, Kunn and Schmidl (2011), based on evidence for Germany, find that programme effectiveness often depends on group characteristics, such as employment impact of further education participation being significantly lower for low-educated youths.

Baussola and Mussida (2014) focus on Italy and find that, while a higher level of education combined with age (young) may help increase employment inflows, it also reduces employment outflows. Manning (2005) and Petrongolo (2009) argue that some individuals view PES interventions negatively and respond by not claiming benefits, but such behaviour has no effect on their entry into employment. Overall the existing literature evidence points to strong country level effects on the role of individual characteristics and overall labour market functioning.

Policies may have effects that extend beyond the intended scope of intervention. For example, Crépon, Duflo, Gurgand, Rathelot and Zamora (2013) found that intensified job counselling in France created higher short-term

opportunities for jobseekers, although this was at the expense of those who did not receive targeted intervention. Recent intensification of ALMP programmes for youth in Denmark, on the other hand, is seen to have had no significant effect on employment, but has rather increased exit rates to sickness benefits (Maibom et al., 2014). This counter-intuitive outcome is attributed to the already highly intensive Danish ALMP approach before the policy change.

Individual characteristics per se are important in preventing LTU. Personal characteristics will clearly have their own effects on LTU chances of returns to jobs. Some of these characteristics may be difficult to modify but nevertheless have adverse effects on the chances of finding jobs. In addition to the commonly discussed roles of age, gender, education or length of long-term unemployment, there are many others. O'Connell, McGuinness and Kelly (2010) in a study on Ireland, listed that the number of children, literacy/numeracy problems, lack of personal transport, low rates of recent labour market engagement or spousal earnings - all significantly increase the likelihood of the short-term unemployed becoming long-term unemployed.

Policy effectiveness should be valued not only by scope of re-employment but also by quality of jobs to which the LTU return to. For example, Krueger et al. (2014) in a study on the US show that, even if the LTU find jobs, they tend to be transitory and lead back into unemployment. Similar findings are found for the EU, with Spermann (2014) observing that many LTU in Germany who found jobs do not remain employed for extended periods of time. Moreover, the latter study found that only one in four LTU take up employment in the primary labour market.

4.2. Helping the LTU return to employment: new insights

The evidence outlined above suggests that transition rates from LTU to employment are strongly influenced not only by policies and socio-economic factors but also by the characteristics and behaviour of those affected. This sub-section seeks to distinguish the effects of different factors using a database of time, cross-country and within-country variation of transition rates from LTU to employment (the dependent variable). This includes a number of independent variables that capture variations in individual characteristics and in labour and socio-economic policies, as well as economic and contextual differences across Member States (see Box 2: Description of explanatory variables and model).

The dependent variable in this analysis is the transition rate from LTU to employment from one year to the next, with a breakdown by Member State and years, covering two age groups (25 to 39 years and 40 to 64 years) and three education groups (low, medium and high). In addition, transition rates are adjusted in order to reflect whether people are registered with public employment services and if they receive benefits in order to test the specific impact of these policy interventions ([22]) (see Box 2).

The dataset includes information on 18 EU Member States ([23]) over the period 2005 to 2013 for unemployment status, with the most recent transition rate relating to employment in 2014. Due to the degree of disaggregation of the analysis and gaps in the more historical EU-LFS data, some important data gaps occur: more than 60 % of observations are from 2010 or later, and data for the full period from 2005 is only available for seven Member States (Cyprus, Estonia, Greece, Hungary, Italy, Romania and Slovakia). The share of the LTU population covered varies by country and year, however, from around a third in Cyprus in 2008 to almost all in Hungary across all years. A number of Member States (Austria, Germany, Portugal and Croatia) only have observations from 2010.

In addition to data limitation concerning the dependent variable, available data on independent variables only enables limited aspects of policy to be developed. Hence, the analysis focuses on a wide coverage of variables rather than a more in-depth study of a particular policy or its dimension, which needs to be born in mind when interpreting the results.

The results of the analysis are presented in Table 4, with eight specifications, indicating a step-by step inclusion of explanatory variables. Specifications one to seven refer to a full dataset for the period 2005 to 2013. Specification number eight covers data from 2010 onwards and, in addition to this different time dimension, reflects a country representation of the reduced sample. Despite the relatively small and specific sample of years and Member States covered, the results offer useful new insights into policy effectiveness across Member States and population groups.

([22]) Clarification: the distinction is based on the LFS "Register" variable. A receipt of benefits here mainly refers to receipt of unemployment benefits and not of other types of income support. As such, in countries with UB duration limited to 12 months, benefit receipt would not be accounted for. It is likely, however, that long-term unemployed are then again re entitled to social assistance or other minimum income supports. For example, based on Spermann (2014), 90 % of LTU in Germany are actually entitled to basic income support, labelled "Hartz IV". Interpretation of benefit receipt when being registered to PES therefore needs to be interpreted with high cautiousness, as typical observations regarding influence of unemployment insurance benefits would lead to limited or biased understanding of observed effects.

([23]) Austria, Cyprus, Czech Republic, Germany, Denmark, Estonia Greece, Croatia, Hungary, Italy, Lithuania, Latvia, Poland, Portugal, Romania, Sweden, Slovenia, Slovakia.

Box 2: Description of explanatory variables and model

All explanatory variables refer to the time of unemployment, i.e. time t, thereby implying a one-year time-lag compared to the year in which the LTU moved to employment. We distinguish two types of variables, as some characteristics are observed in the individual (i.e. group) levels, whereas other characteristics feature core differences across Member States.

Group level characteristics are first of all captured by binary variables covering age, education, registration with PES services and UB receipt. Maximum 18 groups are distinguished for a given year and country (i.e. 2 dimensions of age, 3 dimensions of education level and 3 dimensions by registration/receipt of unemployment benefits). One should be aware that depending on the PES design within Member States, some groups are by default not available or their population representativeness is very low. For example, no benefit receipt while being registered to PES as LTU is observed for Cyprus. Further group characteristics are estimates on within group shares of: women; people with unemployment duration less than 18 months; people who participated in LLL (training); people who were on a fixed term contract; people with no job experience; people who left due to illness or disability; people who left due to personal or family responsibilities; people over 55 years old. These characteristics are estimates based on EU-LFS survey data and capture heterogeneity across population groups in more detail. In addition, the number of LTU is used as a regression weight to adjust modelling results for the size of population groups covered.

Country level characteristics are explored including policy interventions and macroeconomic indicators. GDP growth and the output gap between actual and potential GDP (i.e. the amount by which an economy deviates from its potential output) capture economic potential of Member States over time, with negative rates depicting a degree and evolution of financial crisis. Indicators on the tax wedge and net increase in disposable income if moving from unemployment to employment (NIDI) are based on OECD tax-benefit models and inform on diverse policy settings and financial incentives to work. The EPL index is an OECD measure of employment protection legislation relating to collective and individual dismissals of workers on permanent contracts ([1]). ALMP participation rates are calculated on the basis of DG EMPL LMP database in relation to people wanting to work. Finally, country fixed effects are taken into account and provide insights into the remaining country level effects that are not explicitly captured by included specific country level variables. The reference category for the country fixed effects includes two countries: Italy and Cyprus. Italy is chosen due to most complete series of records across years and across dimensions of dependent variable. Information on Cyprus is pooled into the reference category as distinction of fixed effects is not possible due to particularly limited dimensions of dependent variable.

A number of other variables (i.e. information on unemployment benefit coverage or union density across countries) have been considered but excluded due to robustness checks such as in relation to multi-collinearity. For example, country differences regarding spending on family benefits and healthcare have been checked, but are excluded due to too high correlation with variable of ALMP participation.

As the constructed database pools cross-sections over time and population groups within countries, models and methods accounting for auto-correlation of dependent variable have been applied. In addition to the section described OLS model with lagged dependent variable, GLS with correction for autocorrelation model has also been tested and pointed to as robust and comparable results. To account for the strong interactions between individual level characteristics and policy effects, a separate structural equation model was established to compare results for younger and older workers. The model uses variables from specification 7, i.e. the full set of available country and year observations.

([1]) Version 2; missing values in EPRC index for some countries (i.e. Croatia, Lithuania) are imputed using external information sources with estimation of EPRC index equivalent information; here and further on, missing gaps across years are imputed using information on the most recent observations.

The regression results (Table 4) indicate that LTU registration with PES has a small but positive effect on rates of finding employment but only when a wider list of Member State and group level interactions are taken into account. For example, in line with the observations made in ESDE (2012), registration to PES is not found to be significant if only taking into account the main personal characteristics, such as age or education. However, taking into account other differences across the LTU population, as receipt of training, duration of unemployment and in particular various national level effects, leads to positive PES effects being observed.

This result underlines the difficulties involved in taking account of the PES effects when many other simultaneous factors are involved, as well as the fact that the effectiveness of registration with PES varies significantly, depending on the characteristics of the population groups and across countries. The result complements existing literature observations on the importance of PES design, while indicating that policy efforts to facilitate LTU return to employment can benefit from ensuring both the coverage and quality of the PES services.

Receiving unemployment benefits, while being a registered long-term unemployed has a positive effect on job finding rates overall, when country-specific effects are not accounted for (Table 4, columns 1-4). Once accounting for differences in GDP growth and other national level information, such as the coverage of ALMP measures, this effect weakens but nevertheless remains positive (Table 4, column 5-6). When seeking to take account of country-specific effects (Table 4, columns 7-8), the effect becomes insignificant, but this may be partly explained by the very heterogeneous coverage of UB (see Section 3.1) in the countries reviewed, as well as by the many changes that occurred in the design of benefits during the crisis years. In some countries (Bulgaria, Italy, Poland, Slovakia) unemployment benefits do not cover the LTU, while in others (Germany) more than 60% of LTU receive unemployment benefits. Moreover, as outlined above, it has to be recognised that the LFS data on benefit receipt only relates in principle to unemployment benefits, and may not capture the role of other types of income support such as minimum income schemes, which are, de facto, more important for LTU than for STU.

Altogether, the evidence shows strong country level differences in the design of PES and unemployment benefit systems, leading to the positive, but highly heterogeneous, result in terms of their impact on job finding rates.

Participation in LLL is a particularly strong driver of LTU transitions to employment - a finding valid across all specifications. This suggests that, despite differences in LLL policy designs across countries, this type of support has a unifying and strong positive effect on LTU job finding rates. In line with existent literature findings, this underlines the effectiveness of policy designs targeted at human capital accumulation.

Though the impact of ALMP coverage is only captured at the country level, the results show that higher coverage by ALMP measures can have a positive effect on LTU entries into employment. The effectiveness of this intervention appears to be highly country-specific, supporting wider literature evidence on the influence of specific design types for overall effectiveness of ALMP measures.

The regression results suggest that higher degrees of employment protection legislation strictness are associated with lower employment chances of LTU. This supports some of the literature observations that higher EPL creates barriers to the re-integration of the long-term unemployed, at least for the one year span for which our transition rates are calculated for. However, this finding would deserve further analysis.

As noted before, EPL impacts can vary highly across countries and time (i.e. low or high labour demand), pointing to interactive influences of many factors.

In addition to positive evidence on LLL, the regression analysis shows that job experience is also a strongly positive factor for returns to work, further highlighting importance of human capital formation. Though the finding is more sensitive to differences across countries, the overall result confirms the positive role of policy initiatives as apprenticeships and other on the job training schemes. A note of caution should be issued, as the type of job - that the long-term unemployed find- matters. For example, as shown in the regression analysis, temporary jobs might not necessarily serve as 'stepping stones'.

Table 4: Determinants of transition rates from LTU to employment

		Model specification							
	Explanatory variables	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**
Group level	Lagged dependent variable, LTU to E	0.42***	0.35***	0.31***	0.31***	0.19***	0.17***	0.10***	0.11***
	Registration and UB receipt	0.19***	0.18***	0.15***	0.15***	0.08*	0.09**	0.01	-0.04
	Registration, but no UB receipt	0.04	0.05**	0.05**	0.05**	0.04*	0.09***	0.07***	0.05*
	(reference cat.: No registration, no UB receipt)								
	Aged 25-39	0.21***	0.09**	0.24***	0.23***	0.25***	0.14**	0.18***	0.20***
	Education: medium	-0.22***	-0.18***	-0.26***	-0.25***	-0.32***	-0.25***	-0.27***	-0.25***
	Education: low	-0.30***	-0.25***	-0.26***	-0.26***	-0.33***	-0.28***	-0.33***	-0.28***
	(reference category: high education)								
	Participation in LLL		0.21***	0.26***	0.26***	0.24***	0.13**	0.13***	0.18**
	Share of women		-0.08***	0.00	0.00	0.01	0.08***	0.02	0.03
	Share of aged: > 55 years		-0.10**	-0.09*	-0.09*	-0.11**	-0.17***	-0.15***	-0.14**
	Share of LTU duration: < 18 months		0.07***	0.10***	0.10***	0.17***	0.13***	0.23***	0.26***
	Share of temporary jobs			-0.16***	-0.16***	-0.14***	-0.11***	-0.04	0.00
	Share of people with no job experience			-0.16***	-0.16***	-0.22***	-0.08	-0.13***	-0.20***
	Share of people with health problems				-0.01	-0.04*	-0.04	-0.04	-0.02
	Share of people with family care resp.				0.00	0.00	0.04	0.01	-0.01
Country level	GDP growth					0.20***		0.20***	0.15***
	Ouput gap, actual vs. potential GDP					0.01		0.16***	0.04
	Tax wedge, single person 67% AW					0.08***		-0.04	0.03
	NIDI, single person, 67% AW					-0.14***		-0.13	0.09
	EPL index					0.02		-0.25***	-0.27***
	ALMP participation					0.07***		0.22***	0.12
	Austria						0.08***	0.04*	0.05
	Czech Republic						-0.02	-0.04	n.a.
	Germany						0.18***	0.13***	0.26***
	Denmark						0.13***	0.03	0.06
	Estonia						0.07***	0.02	0.00
	Greece						-0.24***	-0.06	-0.32
	Croatia						-0.07***	-0.08***	-0.06
	Hungary						0.08***	-0.05	-0.03
	Lithuania						-0.02	-0.01	-0.05
	Latvia						0.09***	0.12***	0.16***
	Poland						-0.03	-0.29***	-0.30***
	Portugal						0.09	0.15***	0.19***
	Romania						0.04	0.04	-0.10
	Sweden						0.04	-0.05	-0.08
	Slovenia						0.06***	0.05***	0.06***
	Slovakia						-0.09***	-0.25***	-0.17***
(Constant, unadjusted coeff.)		12.69	15.38	15.48	15.81	10.37	14.37	38.92	29.52
Observations		1391	1391	1391	1391	1391	1391	1391	841
Adj R-squared		0.3761	0.4213	0.4442	0.4436	0.5215	0.5171	0.5814	0.6402
Number of Member States					18				17
Starting year of the selected period					2005				2010

Note: Standardised beta coefficients reported instead of confidence intervals; *** - p < 0.01; ** - p< 0.05; * - p < 0.1.

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People in long-term unemployment from previous employment with fixed term contracts have lower chances of being re-employed. However, this depends very much on country-specific labour market characteristics. For example, accounting for country level effects (Table 4, column 7) in a reduced sample specification (column 8), the evidence is that transition rates to employment are not affected by the share of temporary jobs. This could signal that labour markets in the EU post 2010 are starting to change and more temporary jobs are being offered. On the other hand, the regression model cannot control for the type of jobs obtained. As such it is likely - and in line with previous observations (see Section 2.3) - that LTU with temporary jobs experience are likely to be employed in temporary positions again.

Medium and low-skilled long-term unemployed people have less chance of entering employment than those with high levels of educational attainment in all circumstances. That said, the gap between the medium and low-skilled in their chances of transition to employment is only visible if other influences, such as participation in LLL and job experience or country differences, are *not* accounted for (see e.g. column 3 and column 8). This indicates that the educational gap in job finding rates is not only due to educational differences per se, but also due to other unobserved heterogeneity – be it across countries or people.

Transition rates of women in LTU are not significantly different from those of men, with observable differences largely explained by other characteristics, such as types of jobs held before entry into unemployment and overall job experience (see difference between columns 2 and 3).

In line with existing literature observations, the elderly people are found to have much lower levels of entry into employment. This result is strong and homogenous across all studied model specifications, suggesting that age is a relevant factor in accounting for transitions to employment in all Member States.

Moreover, the more time spent being unemployed, the lower the chances are of finding employment and the analysis shows that controlling for other individual and country level factors only reinforces this conclusion.

Among the macroeconomic drivers of LTU transitions to employment, GDP appears to have an equal importance as some of the labour market policies discussed above. The influence of the output gap variable, which potentially captures crisis effects in terms of macro-economic conditions, is more ambiguous, with no significant effects observed in the reduced sample specification.

Country level characteristics of tax and benefit systems have an impact on transition rates but their role varies greatly across Member States, as indicated by the reduced significance of policy variables by including country fixed effects (columns 6, 7, 8).

The analysis also suggests that a number of important factors that are unaccounted for in the analysis still drive further differences in transition rates across Member States. For instance, such unobserved factors - approximated by inclusion of binary country variables in the regression model - are highly significant in determining higher transition rates in Germany, Latvia and Slovenia, but considerably lower transitions to employment in Slovakia.

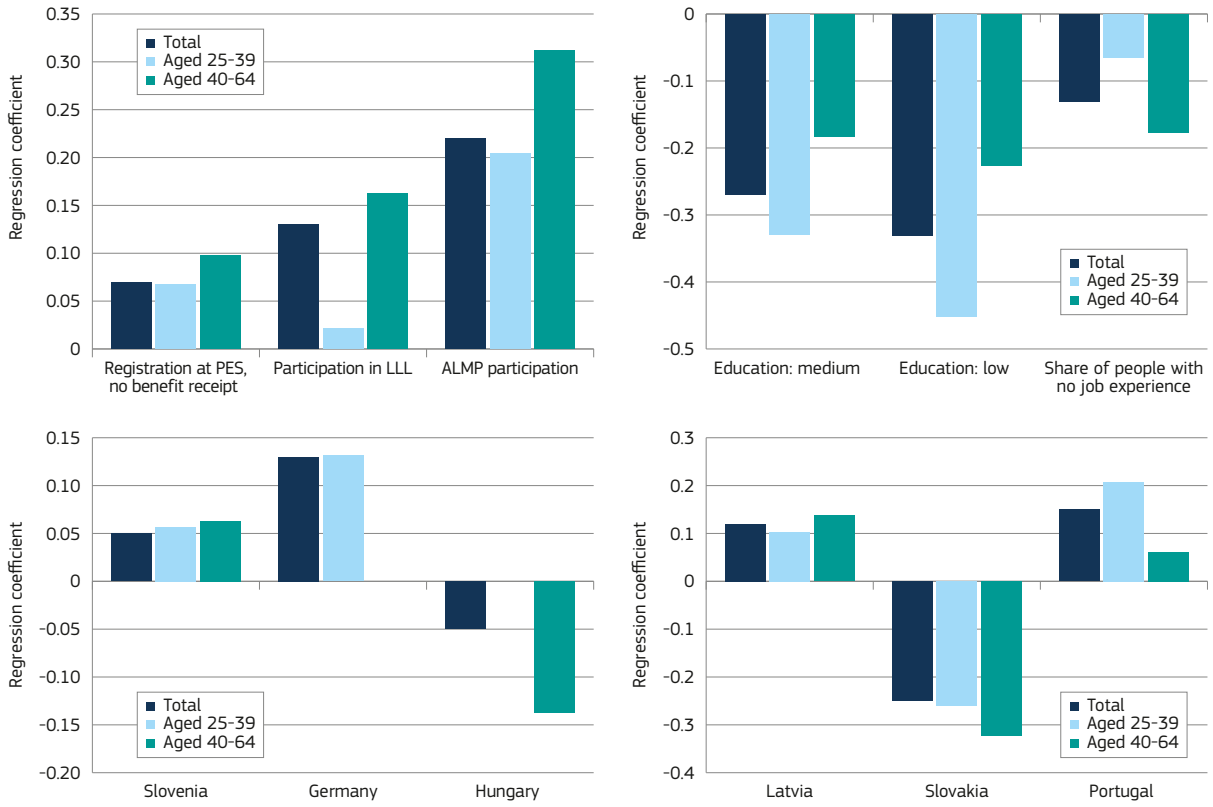
Analysis by age groups suggests that registration to PES with no receipt of benefits has a larger positive impact on transition rates for older people and that the total positive effect of PES registration is primarily driven by observations on the younger people aged 25-39 (Chart 31). The additional value of PES registration for older workers might be due to the PES facilitating access to information that older workers would not otherwise have (i.e. use of internet for job search, advices on job situations, etc.). The opposite holds for younger people. Overall the results point to the need for PES services to cover different generational needs.

The chances of older people entering employment are significantly increased by participation in both LLL and ALMP. This finding is particularly important given that transition rates to employment among the elderly LTU are very low. Moreover, it seems that the overall highly positive effect of LLL programmes is due to consequent transition rates of the elderly, as the effect on the younger people is much smaller.

Low education levels are more of a hindrance to entering employment for the young LTU than for the older LTU, probably because previous job experience compensates for lower education levels (Chart 31). This finding might also imply that different jobs are available for young people in comparison to older people, while noting that a lack of job experience is likely to be a much larger impediment for older people.

Some differences between Member States in terms of impact on transitions from LTU to employment are due to differences across age groups. For example, in comparison to Italy, higher transition rates to employment are noted for the LTU youth in Germany though, otherwise, regression traces no significant differences for the older people. In Hungary, on the other hand, difference is due to results for older people and in Slovenia the total (positive) regression result is driven by a better performance of both younger and older people. Similarly, employment opportunities seem to be higher for Portuguese young people rather than older people, while in Latvia younger LTU seem to have relatively fewer opportunities. The negative performance among the Slovakian long-term unemployed seems to be unrelated to age.

Chart 31: Regression coefficients: total and group effects



Source: DG EMPL estimations, only significant results reported.

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5. Discussion and summary

Levels of long-term unemployment are currently at record highs and include a high, and still rising, share of people who have been unemployed for more than two years, with significant negative consequences for economic growth, labour market functioning and workers' health. While the unemployment rate did start to decline in 2013, LTU has only stabilised in the most recent quarters, but with considerable variations across Member States. Currently the Member States with the highest unemployment rates have a high share of LTU among the unemployed but comparisons of Member States with similar levels of unemployment highlight the fact that some appear to be doing much better than others in preventing and combating LTU.

Both the likelihoods of finding a job and of falling into inactivity reduced during the crisis, hinting at steadier labour market attachment of the unemployed throughout the economic downturn. Long-term unemployed workers have about half the chance of finding employment than the short-term unemployed and their chances worsened during the crisis. Job finding rates vary from 10% to 42% across EU Member States. Among the LTU, job finding rates decrease with longer durations and this worsened the longer the crisis went on. The likelihood of remaining LTU from one year to the next varies from 25% to more than 80% across EU Member States revealing large differences in the dynamics of the EU labour market.

The young, the low-skilled and third-country migrants faced the highest risk of being LTU before the crisis and, along with the EU mobile, were the hardest hit during the crisis, whereas the old and low-skilled have the least chance of returning to work. The crisis has narrowed the gap between men and women in terms of LTU. Nevertheless, men tend to have better chances of returning to employment in most Member States. Not only are the low educated labour force most affected by LTU but this group has more than doubled during the crisis. Conversely, education raises opportunities of finding jobs for the LTU in most Member States.

However, policy interventions that we know matter for the LTU vary a lot between Member States and do not cover all segments of the LTU population equally nor adequately. During the crisis, training/lifelong learning and registration with Public Employment Services have increased overall while the coverage of unemployment benefits has started to decrease in the most recent years. There are considerable differences between Member States' policy coverage of the LTU, ranging from less than 1% to 90% in terms of UB receipt, from 22% to 100% in terms of PES registration, and from 1% to 55% in terms of participation in training/lifelong learning. These,

as ESDE 2012 also showed, explain part of the differences in the resilience and reaction of different Member States to the economic crisis.

Differences in policy coverage also exist between different segments of the population with implications for policy effectiveness as the most at risk are not always the most covered by all policy interventions. For instance, older workers and the low-skilled who are most affected by LTU appear to be better than average covered by PES and unemployment benefits (EU average: 72%), but least by lifelong learning efforts (4-6% vs. 11% for the EU as a whole).

In contrast, young adults (25-29) are more likely to participate in training (21% vs. 11%) but are less likely to be registered with the PES and receiving unemployment benefits. The highly skilled, medium-skilled, male and female workers as well as prime aged workers (25-49) are all close to the overall EU average in terms of PES registration (72%) and STU UB receipt (41%), but the highly skilled unemployed are significantly more likely to be taking part in training and lifelong learning than the medium-skilled (18.8% vs. 8.8%) or the overall average (10.7%).

PES registration tends to increase with duration and age, while participation in training tends to decline with both duration and age. In the most common format the receipt of UB rises in the first five months of unemployment but declines thereafter, and in some Member States less than 10% of the LTU receives them. There is a positive trend in terms of lifelong learning, with the unemployed in the EU (STU and LTU) taking part in more training and educational activities in 2014 than they did prior to the crisis in 2007 (10.7% vs. 9.3%).

The chapter has used the most recent Eurostat experimental data on transitions from LTU to employment to construct a comprehensive model and run a regression analysis on which policy interventions helped combat LTU most effectively across Member States. When doing so it has controlled for a wider set of country-specific socio-economic developments and personal characteristics like age, gender or prior work experience than were ever used before. When considering the characteristics of the long-term unemployed population and macroeconomic developments, policy intervention remains a key influence in aiding the long-term unemployed back into stable jobs. While, as expected, economic growth was of key importance for LTU job finding rates during the 2005 to 2013 period, recently its impact has diminished and other factors seem to have had a greater impact.

All other things being equal, the long-term unemployed who have participated in training or education and have job experience are far more likely to transition to a sustainable job. This tends to be especially the case for the low-skilled as the gap between medium and low-skilled, compared to the high skilled, narrows when accounting for participation in training/lifelong learning and job experience. This strongly suggests that the educational gap in job finding rates could be bridged by additional targeted training and work experience and adds further weight to the evidence that the worst affected segments of the population by LTU, the low-skilled and the older workers, profit least from training/lifelong learning efforts.

Being registered with the PES, especially in combination with receiving unemployment benefits, significantly increases the chances of the LTU to transition into sustainable employment but the relevance of receiving benefits has declined in recent years. The positive impact of PES registration and receipt of unemployment benefits depends on the quality of their delivery and design, as their impact on job finding rates strongly varies across Member States.

Though the impact of ALMP coverage was only captured at the Member State level, the results showed that higher coverage by ALMP measures can have a positive effect on LTU entries into employment. The effectiveness of this intervention appears to be highly country-specific, supporting wider literature evidence on the influence of specific design types for overall effectiveness of ALMP measures.

Higher degrees of employment protection legislation strictness are associated with lower employment chances of LTU. Arguably, this supports the wider literature observations that higher EPL creates barriers to the re-integration of the long-term unemployed - at least for the one year span that out transition rates are calculated for. It is particularly strong for those workers whose productivity is uncertain, such as the long-term unemployed.

The regression analysis also looked into what consequences for policy effectiveness different personal characteristics might have when combining them with particular policy interventions. PES registration and receipt of unemployment benefits were found to have a larger positive impact on transition rates for younger people, whereas the effect of PES registration per se is stronger for older workers. This is in contrast to the fact that the younger workers are those who are covered by unemployment benefits and PES registration the least. Future research is needed to try and provide insight into why this is so and whether it means that younger LTU workers are more in need of income support when unemployed than older ones in order for their job search to be successful.

Moreover, the analysis indicated that lower education levels are more of a hindrance to entering employment for the younger than the older LTU. Future research could try and indicate whether this is due to the older workers' comparatively lower overall level of education compensating for their lack of formal education or whether formal education is more important now in a wider number of sectors and/or professions that are hiring younger workers.

The analysis and literature review nevertheless indicates that LTU needs to be tackled with a combination of measures. These include, most importantly, participation in active labour market policies, in particular in training/lifelong learning, and preferably combined with work experience, PES support to guide the job search process, and unemployment benefit receipt to ensure they are financially able to take part in policy interventions aimed at increasing their employability. However, the relative importance of each of these forms of support vary, depending on the personal characteristics of those concerned, underlining the need for more individualisation and targeting of policy measures.

ANNEX

Annex Table 1: LTU rate (% of active population) by country and by group

	Total			Gender						Educational attainment									Age						Country of birth								
				Men			Women			Low			Medium			High			15-24			55-74			Nationals			EU mobile			Third-countries		
	'07	'14	chg	'07	'14	chg	'07	'14	chg	'07	'14	chg	'07	'14	chg	'07	'14	chg	'07	'14	chg	'07	'14	chg	'07	'14	chg	'07	'14	chg	'07	'14	chg
EU-28	3.1	5.0	1.9	2.9	5.0	2.2	3.3	4.9	1.6	4.7	10.0	5.3	3.1	4.4	1.3	1.3	2.5	1.2	4.1	7.6	3.5	3.1	4.3	1.2	2.9	4.8	1.9	2.0	5.7	3.7	3.6	9.7	6.1
AT	1.3	1.5	0.2	1.2	1.7	0.4	1.5	1.4	-0.1	2.9	3.5	0.7	1.0	1.2	0.2	0.8	1.1	0.3	1.3	1.4	0.1	1.8	1.8	0.0	1.0	1.2	0.2	1.9	1.7	-0.2	3.5	3.7	0.2
BE	3.8	4.3	0.5	3.3	4.7	1.4	4.4	3.8	-0.6	7.7	9.7	2.0	3.6	4.2	0.6	1.4	1.8	0.4	5.7	8.0	2.4	3.3	3.7	0.3	3.1	3.2	0.1	4.5	5.1	0.6	13.2	13.9	0.7
BG	4.1	7.6	3.5	3.7	8.5	4.8	4.5	6.6	2.1	12.0	19.4	7.4	3.0	7.2	4.2	1.3	3.1	1.8	6.3	12.7	6.4	4.4	8.3	3.9	4.1	7.0	2.9						
CY	0.7	7.7	7.0	0.8	8.3	7.5	0.7	7.0	6.4	1.0	10.7	9.6	0.9	9.0	8.2	0.4	5.3	4.9	2.4	10.7	8.3	0.7	8.9	8.2	0.7	8.0	7.3		5.9	5.9	1.3	7.2	5.9
CZ	2.8	2.5	-0.3	2.1	2.1	0.0	3.6	3.0	-0.6	13.8	14.0	0.2	2.2	2.3	0.1	0.4	0.7	0.2	3.5	3.8	0.3	2.2	2.2	0.0	2.7	2.6	-0.1	7.2	4.2	-3.0	4.4	2.7	-1.7
DE	4.8	2.2	-2.6	4.9	2.4	-2.5	4.7	1.9	-2.8	9.6	5.6	-4.0	4.7	2.1	-2.7	1.8	0.9	-0.9	3.9	1.8	-2.1	7.1	2.9	-4.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
DK	0.6	1.6	0.9	0.5	1.5	1.0	0.7	1.6	0.9	0.8	2.5	1.7	0.5	1.4	0.9	0.6	1.2	0.6	0.3	1.1	0.8	1.3	1.7	0.5	0.5	1.4	0.8		2.3	2.3	1.7	4.9	3.2
EE	2.3	3.3	1.0	2.9	3.9	1.1	1.7	2.7	1.0	4.6	5.9	1.3	2.5	3.9	1.4	1.2	2.1	0.8	3.1	4.4	1.4	2.2	3.0	0.8	2.1	3.1	1.0				3.5	6.0	2.5
ES	1.7	12.6	10.9	1.3	12.1	10.9	2.4	13.1	10.8	2.4	18.4	16.0	1.4	12.2	10.8	1.1	6.9	5.8	1.7	21.4	19.7	2.7	13.3	10.6	1.8	12.1	10.4	1.4	13.4	12.1	1.3	18.5	17.2
FI	1.6	1.9	0.2	1.7	2.1	0.3	1.5	1.7	0.2	3.0	3.9	0.9	1.6	2.1	0.5	0.9	1.0	0.0	1.0	1.0	0.1	3.0	3.1	0.0	1.5	1.8	0.3		3.8		6.8	6.0	-0.8
FR	3.1	4.2	1.2	2.8	4.6	1.8	3.3	3.8	0.5	5.5	8.6	3.0	2.5	4.2	1.6	1.6	2.3	0.6	4.3	6.7	2.4	2.8	4.8	2.0	2.7	4.1	1.4	3.0	3.4	0.5	7.5	9.8	2.4
EL	4.2	19.5	15.3	2.2	17.2	15.0	7.0	22.4	15.4	3.7	21.7	18.0	5.3	22.2	16.8	3.0	14.0	11.0	9.4	31.5	22.1	1.9	13.7	11.8	4.3	18.8	14.6	3.1	20.0	16.9	3.6	26.8	23.2
HR	6.0	10.1	4.1	5.0	9.6	4.6	7.2	10.6	3.4	8.2	18.0	9.8	6.1	10.9	4.8	3.3	4.0	0.7	11.6	22.6	11.0	3.8	7.3	3.5	5.9	9.9	4.0	7.7	9.5	1.8	6.7	12.0	5.3
HU	3.5	3.7	0.2	3.3	3.6	0.3	3.6	3.7	0.1	9.4	8.8	-0.5	3.0	3.6	0.6	0.9	1.2	0.3	6.5	6.7	0.1	2.2	3.8	1.6	3.5	3.7	0.2		4.4				
IE	1.4	6.6	5.2	1.8	8.3	6.5	0.9	4.6	3.6	3.1	13.3	10.1	1.0	7.9	6.8	0.5	3.0	2.5	1.9	9.3	7.4	0.9	6.0	5.1	1.4	6.4	5.0	1.2	7.7	6.4	2.1	7.4	5.3
IT	2.9	7.7	4.8	2.3	7.1	4.8	3.9	8.6	4.6	3.8	10.9	7.1	2.6	7.1	4.4	1.8	3.8	2.0	8.6	24.8	16.3	1.2	3.4	2.3	2.9	7.5	4.7	3.2	9.1	5.9	3.1	9.6	6.5
LT	1.4	4.8	3.4	1.5	5.4	4.0	1.3	4.2	2.9	2.6	13.2	10.6	1.7	6.4	4.7	0.5	1.4	0.9	1.8	4.4	2.6	1.5	5.6	4.1	1.4	4.8	3.4						
LU	1.2	1.7	0.5	1.3	1.7	0.4	1.1	1.6	0.6	2.0	2.7	0.7	0.9	2.2	1.3	0.7	0.9	0.2	3.5	3.6	0.1	0.9	2.2	1.3	1.0	1.2	0.2	1.0	1.6	0.5	4.0	4.1	0.1
LV	1.6	4.7	3.0	2.0	5.3	3.4	1.3	4.0	2.7	2.8	11.0	8.1	1.7	5.2	3.5	0.7	1.8	1.1	1.2	4.7	3.6	1.5	4.0	2.5	1.6	4.5	2.9				2.1	6.0	3.9
MT	2.7	2.8	0.1	2.8	3.2	0.4	2.5	2.0	-0.4	4.1	4.9	0.8	1.1	1.1	0.0	0.3	0.9	0.6	3.7	3.2	-0.5	2.2	3.4	1.2	2.7	2.7	0.1						0.0
NL	1.4	2.5	1.1	1.3	2.6	1.2	1.5	2.4	0.9	2.2	4.0	1.8	1.3	2.7	1.3	0.9	1.2	0.3	1.0	1.5	0.5	2.9	3.9	0.9	1.0	2.6	1.5	1.8	3.8	1.9	3.5	7.2	3.7
PL	4.9	3.8	-1.1	4.6	3.7	-0.9	5.4	4.1	-1.3	9.5	9.3	-0.2	5.3	4.3	-1.0	1.6	1.7	0.1	7.5	7.4	-0.1	3.9	3.4	-0.6	4.9	3.8	-1.1						
PT	3.9	8.4	4.6	3.2	8.4	5.1	4.6	8.5	3.9	4.3	10.0	5.8	3.3	8.3	4.9	2.3	4.9	2.5	4.6	12.6	8.0	3.3	9.0	5.7	3.8	8.2	4.4		7.1		3.9	11.0	7.2
RO	3.2	2.8	-0.4	3.6	3.1	-0.5	2.7	2.4	-0.3	3.5	2.6	-0.9	3.5	3.1	-0.3	1.4	2.0	0.6	9.7	8.7	-0.9	0.8	1.0	0.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SE	0.8	1.4	0.6	0.9	1.6	0.7	0.8	1.3	0.5	1.3	3.5	2.2	0.8	1.2	0.4	0.6	0.8	0.3	0.7	1.3	0.5	1.1	1.6	0.4	0.6	0.9	0.2	1.5	1.9	0.4	2.6	5.4	2.8
SI	2.2	5.3	3.1	1.8	5.0	3.1	2.7	5.7	3.0	3.6	10.0	6.3	2.3	5.6	3.4	1.1	2.9	1.8	3.0	7.6	4.6	1.5	4.7	3.2	2.2	5.1	3.0		5.3		3.9	7.5	3.6
SK	8.3	9.3	1.0	7.4	9.4	1.9	9.3	9.1	-0.2	39.8	32.9	-6.9	6.6	8.9	2.2	1.7	3.3	1.6	11.6	17.0	5.4	6.8	8.0	1.3	8.3	9.3	1.0						
UK	1.3	2.1	0.8	1.6	2.5	0.9	0.9	1.6	0.7	2.8	5.0	2.2	1.0	2.0	1.0	0.4	0.6	0.2	2.3	4.4	2.2	1.0	1.9	0.8	1.2	2.2	1.0	0.8	1.4	0.7	2.2	2.9	0.7

Source: DG EMPL calculations based on EU-LFS extractions and [lfsa_urgacob] and [lfsa_upgacob].

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Annex Table 2: LTU composition (% of LTU) by country and by group, 2014

	Gender		Educational attainment			Age		Country of birth		
	Men	Women	Low	Medium	High	15-24	55-74	Nationals	EU mobile	Third-countries
EU-28	54.6	45.4	41.3	42.8	15.6	14.7	14.5	84.3	3.7	12.0
AT	57.1	42.9	33.9	43.6	22.5	11.8	14.5	66.3	9.4	24.3
BE	59.2	40.8	44.4	38.4	17.2	15.1	11.6	62.9	8.8	28.3
BG	59.8	40.2	34.2	53.7	12.1	9.9	20.6	99.8	0.0	0.1
CY	55.7	44.3	25.5	44.9	29.5	13.6	15.8	79.4	8.9	11.7
CZ	47.4	52.6	27.7	66.3	6.0	10.2	14.5	95.4	3.2	1.4
DE	59.2	40.8	33.2	56.1	10.6	8.1	26.4	N/A	N/A	N/A
DK	52.5	47.5	31.6	35.4	22.9	10.3	19.4	71.9	6.2	21.9
EE	60.9	39.1	15.1	60.5	24.4	11.2	18.8	80.7	0.2	19.1
EL	49.4	50.6	30.4	47.6	22.0	10.3	8.8	86.4	2.1	11.4
ES	51.8	48.2	56.5	22.7	20.8	11.9	14.4	78.3	5.2	16.5
FI	56.6	43.4	26.4	52.5	21.1	6.9	33.1	85.2	4.6	10.2
FR	56.6	43.4	36.3	44.0	19.7	14.9	17.1	77.8	2.6	19.5
HR	51.0	49.0	21.1	69.1	9.5	19.6	10.3	87.2	1.1	11.7
HU	53.6	46.4	30.6	61.1	8.3	13.6	15.5	97.7	2.0	0.3
IE	69.1	30.9	32.3	46.2	19.0	12.7	14.0	76.1	16.6	7.3
IT	52.8	47.2	47.3	43.1	9.6	20.5	7.2	83.0	5.3	11.6
LT	56.3	43.7	15.1	73.2	11.7	8.1	21.0	96.7	0.1	3.2
LU	56.1	43.9	25.9	44.4	24.2	13.2	14.1	34.0	43.9	22.0
LV	57.1	42.9	22.0	65.3	12.7	8.8	16.4	86.8	1.1	12.1
MT	72.1	27.9	80.3	12.2	7.5	17.0	17.7	91.6	2.3	6.1
NL	55.8	44.2	36.1	45.9	16.7	9.4	28.1	75.3	3.9	20.7
PL	52.2	47.8	15.9	70.5	13.5	16.2	13.8	99.5	0.1	0.4
PT	50.7	49.3	62.2	24.3	13.4	11.0	19.0	88.4	2.3	9.3
RO	62.1	37.9	23.4	63.6	13.0	22.6	6.4	N/A	N/A	N/A
SE	58.3	41.7	38.5	39.9	21.6	11.3	22.3	47.5	6.9	45.6
SI	50.3	49.7	22.1	61.1	16.8	10.0	11.3	87.3	2.3	10.4
SK	56.0	44.0	23.2	69.3	7.4	14.2	12.2	99.7	0.2	0.1
UK	64.5	35.5	44.8	39.2	12.0	30.0	16.0	83.5	3.9	12.7

Source: DG EMPL calculations based on EU-LFS extractions and [lfsa_urgacob] and [lfsa_upgacob].

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References

Arpaia, A. Kiss, A. and Turrini, A., 'Is unemployment structural or cyclical? Main features of job matching in the EU after the crisis', *European Economy*, DG ECIN Economic Papers 2014, p. 527.

Arpaia, A., Curci, N., Meyermans, E., Peschner, J. and Pierini, F., 'Short-time working arrangements as response to cyclical fluctuations', European Economy Occasional Paper No 64, European Commission, 2010.

Badea, P. and Xavier, A. (2015) Analytical Web Note 1/2015 - A descriptive analysis of the EU Labour Market Policy (LMP) Statistics (08/06/2015). European Commission.

Baert S. and Verhaest D, 'Unemployment or Overeducation: Which is a Worse Signal to Employers?', IZA DP No.8312, 2014.

Barnes, M., Gumbau-Brisa, F. and Olivei, G. P., 'Cyclical versus Secular: Decomposing the Recent Decline in U.S. Labor Force Participation', Federal Reserve Bank of Boston, 2013.

Baussola, M., & Mussida, C. (2014). Transitions in the Labour Market: Discouragement Effect and Individual Characteristics. *Labour*, *28*(2), 209-232.

Bell, D. N. F. and Blanchflower, D. G., 'Young People and the Great Recession', IZA DP No 5674, 2011.

Berger, H. and Danninger, S., 'The Employment Effects of Labor and Product Markets Deregulation and their Implications for Structural Reform', *CESifo Working Paper*, Series No 1709, May 2006.

Biewen, M. and Steffes, S., 'Unemployment Persistence: Is There Evidence for Stigma Effects?', *Economics Letters*, Vol. 106, No 3, 2010, pp. 188–90.

Boeri, T. and Bruecker, H., 'Short-time work benefits revisited: some lessons from the global financial crisis', *Economic Policy*, Vol. 26, Issue 68, 2011, pp. 697–765.

Boheim, R. 'The effect of early retirement schemes on youth employment'. IZA World of Labor 2014, p. 70.

Bradbury, K. *'Labor market transitions and the availability of unemployment insurance'*. No 14-2. Working Papers, Federal Reserve Bank of Boston, 2014.

Brenner, H., 'Unemployment and heart disease mortality in European countries', Final Report for the European Commission, 2013.

Brenner, M.H. 'Impact of long term unemployment on self-perceived health in the EU', Final Report for the European Commission, 2015 (forthcoming).

Bryan, M. and Longhi, S., 'Couples' labour supply responses to job loss: boom and recession compared', ISER Working paper series No 2013–20, October 2013.

Cahuc, P. and Carcillo, S., 'Is Short-Time Work a Good Method to Keep Unemployment Down?', *IZA Discussion Paper,* No 5430, 2011.

Caliendo, M., Kunn, S. and Schmidl, R., 'Fighting Youth Unemployment: The effects of Active Labour Market Policies', *IZA DP 6222*, 2011.

Card, D., Kluve, J., & Weber, A. (2015). *What works? A meta analysis of recent active labor market program evaluations* (No w21431). National Bureau of Economic Research.

Card, D., Kluve, J., & Weber, A. (2010), "Active Labour Market Policy Evaluations: A Meta-Analysis", *The Economic Journal*, 120(548), F452-F477.

Cedefop, 'Return to work: Work-based learning and the reintegration of unemployed adults into the labour market', *Cedefop working paper*, No 21, Luxembourg: Office for Official Publications, 2013.

Cedefop 'Matching skills and jobs in Europe: Insights from Cedefop's European skills and jobs survey', available online at: http://www.cedefop.europa.eu/en/publications-and-resources/publications/8088, 2015a.

Cedefop, 'Skills, qualifications and jobs in the EU: The making of a perfect match?', Cedefop reference series report, forthcoming, 2015b.

Cedefop, 'Stronger VET for better lives', Cedefop's monitoring report on vocational education and training policies 2010-2014, Reference series 98, Luxembourg: Office for Official Publications, 2015c.

Cockx, B. and Picchio, M., 'Scarring effects of remaining unemployed for long-term unemployed school-leavers', *IZA DP*, No 5937, 2011.

Crépon, B., Duflo, E., Gurgand, M. Rathelot, R. and Zamora, P., 'Do Labor Market Policies Have Displacement Effects? Evidence from a Clustered Randomized Experiment', *The Quarterly Journal of Economics*, Oxford University Press, Vol. 128 (2), 2013, pp. 531-580.

Cutler, D., Huang, W. and Lleras-Muney, A., 'When Does Education Matter? The Protective Effect of Education for Cohorts Graduating in Bad Times', *NBER Working Paper*, No 20156, 2014.

Dolado, J.J., Jansen M., Felguereso F., Fuentes A., Wölfl A., 'Youth labour market performance in Spain and its determinants – A micro level perspective', *Economics Department Working Papers*, OECD, No 1039, 2013.

Ecorys-IZA, 'Costs-benefits of active and passive labour market measures', 2012.

Ehlers, C., J. Kluve & S. Schaffner, 'Temporary Work as an Active Labor Market Policy: Evaluating an Innovate Program for Disadvantaged Youth', *Economics Bulletin*, 32, 2012, pp. 765-773.

Eichhorst, W., N. Rodríguez-Planas, R. Schmidl and K.F. Zimmermann, 'A Roadmap to Vocational Education and Training Systems around the World', *IZA Discussion Paper,* No 7110, 2012.

Eichhorst, W., Neder, F., Tobsch, V., & Wozny, F. (2015). *A European Perspective on Long-Term Unemployment* (No 9321). Institute for the Study of Labor (IZA).

Eurofound, 'Extending flexicurity — The potential of short-time working schemes', ERM Report, 2010.

Eurofound, 'Household over-indebtedness in the EU: The role of informal debts', Publications Office of the European Union, Luxembourg, 2013.

Eurofound, 'Access to healthcare in times of crisis', Publications Office of the

European Union, Luxembourg, 2014a. http://www.eurofound.europa.eu/areas/health/healthcareservices.htm.

Eurofound, 'Changes to wage-setting mechanisms in the context of the crisis and the EU's new economic governance regime', Dublin, 2014b.

Eurofound, 'Drivers of recent job polarisation and upgrading in Europe: European Jobs Monitor 2014, Publications Office of the European Union, Luxembourg, 2014c.

European Commission, 'Employment in Europe', 2010a.

European Commission, 'Self Employment in Europe 2010', *European Employment Observatory Review,* 2010b.

European Commission, 'Employment and Social Developments in Europe', 2011a.

European Commission, 'Labour market developments', ECFIN, 2011b.

European Commission, 'Industrial Relations in Europe 2010', Brussels, 2011c.

European Commission, 'Employment and Social Developments in Europe', 2012a.

European Commission, 'The impact of the economic crisis on the situation of women and men and on gender equality policies', Expert Group on Gender and Employment (EGGE), 2012b.

European Commission, 'Staff working document accompanying the document Proposal for a Council Recommendation on Establishing a Youth Guarantee', 2012c.

European Commission, 'A Decade of Labour Market Reforms in the EU: Trends, Main Features, Outcomes', LABREF, 2012d.

European Commission, '*Industrial Relations in Europe 2012*', Directorate-General for Employment, Social Affairs and Inclusion, 2012e.

European Commission, 'Evaluation of flexicurity 2007–2010: Final Report', Directorate-General Employment, Social Affairs and Equal Opportunities, 2012f.

European Commission, 'Employment and Social Developments in Europe', 2013a.

European Commission, 'Industrial Relations in Europe 2012', Brussels, 2013b.

European Commission, 'Draft Joint Employment Report accompanying the Communication from the Commission on Annual Growth Survey 2014', Brussels, 2013c.

European Commission 'Employment and Social Situation Quarterly Review', March 2014', 2014a.

European Commission, 'A Decade of Labour Market Reforms in the EU: Insights from the LABREF database', LABREF, 2014b.

European Commission, 'Is unemployment structural or cyclical? Main features of job matching in the EU after the crisis', August 2014c.

European Commission, 'Assessment of the 2014 national reform programmes and stability programmes for the Euro Area', Commission Staff Working Document, 2014d.

European Commission 'Employment and Social Situation Quarterly Review', June 2014', 2014e.

European Commission 'Employment and Social Developments in Europe, 2014', 2014f.

European Commission 'Employment and Social Situation Quarterly Review', March 2015', 2015a.

European Commission, 'Industrial Relations in Europe 2014', Directorate-General for Employment, Social Affairs and Inclusion, 2015b.

European Employment Observatory, 'Stimulating job demand: the design of effective recruitment incentives in Europe', *EEO Review*, 2014.

European Employment Observatory, EEO Review: Long-term unemployment, 2012.

European Parliament, 'Gender aspects of the effects of the economic downturn and financial crisis on welfare systems', 2014.

Fabian et al. 'The legacy of the recession: values and societal issues', Social Situation Monitor, Research note No 7, 2014.

Fabrizi, E., & Mussida, C. (2009). The determinants of labour market transitions. *Giornale degli Economisti e Annali di Economia*, 233-265.

Filges, T., Smedslund, G., Knudsen, A. S. D., & Jørgensen, A. M. K. (2015). Active Labor Market Programme Participation for Unemployment Insurance Recipients: A Systematic Review. *Campbell Systematic Reviews*, *11*(2).

Gaini, M., Leduc, A. and Vicard, A., 'A scarred generation? French evidence on young people entering into a tough labour market', *Direction des etudes et synthèses économiques*, G 2012/05, INSEE, 2012.

Gregg, P., 'The impact of youth unemployment on adult unemployment in the NCDS', *The Economic Journal*, Vol. 111, 2011, pp. 626-653.

Guio A.C., Pomati, M., 'How do European Citizens cope with economic shock? Expenditures that households in hardship are curtailing first'; European Commission, to be published, 2014.

Hijzen, A. and Martin, S., 'The role of short-time work schemes during the global financial crisis and early recovery: a cross-country analysis', *IZA Journal of Labor Policy,* Vol. 2, No 5, 2013.

Hijzen, A. and Venn, D., 'The role of short-time work schemes during the 2008–09 recession', *OECD Social, Employment and Migration Working Papers*, No 2010/15, OECD Publishing, Paris, 2010.

Holmlund, B., 'What do labor market institutions do?', *Working Paper Series 2013*, No 23, Uppsala University, Department of Economics, 2013.

International Labour Organisation, 'Deregulating labour markets: how robust is the analysis of recent IMF working papers', by Mariya Aleksynska; International Labour Office, Conditions of Work and Employment Branch. - Geneva: ILO, 2014.

International Monetary Fund, 'Euro Area policies', *IMF Country Report*, No 14/198, 2014a.

International Monetary Fund, 'Euro Area policies', *IMF Country Report*, No 14/199, 2014b.

Immervoll, H. and Scarpetta, S., 'Activation and employment support policies in OECD countries. An overview of current approaches', *IZA Journal of Labor Policy*, Vol. 1, No 9, 2012.

Irving, P., Bianchini, D., Manoudi, A. and Metcalfe H, ICF INTERNATIONAL (2015). Assessment report on PES capacity, European Commission, DG EMPL.

Kahn, L. B., 'The long-term labor market consequences of graduating from college in a bad economy', *Labour Economics*, Vol. 17, No 2, 2010, pp. 303–16.

Kluve, J., 'The effectiveness of European active labor market programs', *Labour Economics*, Vol. 17, No 6, 2010, pp. 904–18.

Kroft, K., Lange, F., Notowidigdo, M. J., and Katz, L. F., *Long-term unemployment and the Great Recession: the role of composition, duration dependence, and non-participation*, No w20273. National Bureau of Economic Research, 2014.

Krueger, A. B., Cramer, J. and Cho, D., *Are the long-term unemployed on the margins of the labor market?*, Brookings Papers on Economic Activity (2014): 229-280.

Maibom, J., Rosholm, M. and Svarer, M. 'Can Active Labour Market Policies Combat Youth Unemployment? ' Nordic Economic Policy Review, No 1 - 2014, pp. 215-262.

Manning, A., 'You Can't Always Get What You Want: the Impact of the Jobseeker's Allowance', *CEP Discussion Papers*, No dp0697, Centre for Economic Performance, LSE, 2005.

Manoudi, A. et al. (2014), "Small scale study on PES business models", prepared for the European Commission, DG Employment, Social Affairs and Inclusion, ec.europa.eu/social/BlobServlet?docId=11972&langId=en

McVicar, D. and Podivinsky, J.M. *'Are Active Labour Market Programmes Least Effective Where They Are Most Needed? The Case of the British New Deal for Young People*', Melbourne Institute Working Paper Series 2010, No 16. Melbourne Institute of Applied Economic and Social Research, the University of Melbourne.

Mosthaf A., 'Do Scarring Effects of Low-Wage Employment and Non-Employment Differ BETWEEN Levels of Qualification?', *Scottish Journal of Political Economy,* Vol. 61, Issue 2, May 2014, pp.154-177.

Nielsen Ø.A., Reiso K. H., 'Scarring effects of unemployment', *IZA DP*, No 6198, 2011.

O'Connell, P. J., McGuinness, S., & Kelly, E. (2010). *A statistical profiling model of long-term unemployment risk in Ireland* (No 345). ESRI working paper.

Oreopoulos, P., von Wachter, T. and Heisz, A., 'The Short and Long-Term Career Effects of Graduating in a Recession: Hysteresis and Heterogeneity in the Market for College Graduates', *American Economic Journal: Applied Economics*, Vol. 4, No 1, 2012, pp. 1–29.

Organisation for Economic Cooperation and Development, 'Employment Outlook 2010: Moving beyond the job crisis', Paris, 2010.

Organisation for Economic Cooperation and Development, 'Divided we stand', 2011.

Organisation for Economic Cooperation and Development, 'Closing the gender gap', 2012a.

Organisation for Economic Cooperation and Development, 'What Makes Labour Markets Resilient During Recessions?', *Employment Outlook 2012*, 2012b, pp. 43–107.

Organisation for Economic Cooperation and Development, 'Crisis squeezes income and puts pressure on inequality and poverty', 2013a.

Organisation for Economic Cooperation and Development, 'Employment Outlook', 2013b.

Organisation for Economic Cooperation and Development, 'OECD Skills Outlook 2013: First results from the Survey of Adult Skills', 2013c.

Organisation for Economic Cooperation and Development, 'Employment Outlook', 2014a.

Organisation for Economic Cooperation and Development, 'Jobs, Wages and Inequality and the Role of Non-Standard Work', OECD Publishing, Paris, 2014b.

Organisation for Economic Cooperation and Development, 'Society at Glance', OECD Publishing, Paris, 2014c.

Organisation for Economic Cooperation and Development, 'Employment Outlook', 2015.

Osikominu, A. (2013). Quick job entry or long-term human capital development? The dynamic effects of alternative training schemes. *The Review of Economic Studies*, *80*(1), 313-34.

Otterbach, S., and A. Sousa-Poza. 'Job insecurity, employability, and health: An analysis for Germany across generations', *FZID Discussion Paper*, No 88-2014, 2014.

Peschner, J. and Fotakis, C. 'Growth potential of EU human resources and policy implications for future economic growth,' Directorate-General for Employment, Social Affairs Working Paper No 03/2013, Luxembourg 2013.

Peschner, J., 'Exploring conditions for EU growth given a shrinking workforce', *Free Movement of Workers and Labour Market Adjustment*, 2012, pp. 213-233.

Petrongolo, B. *'The long-term effects of job search requirements: Evidence from the UK JSA reform'*. Journal of Public Economics, 2009 - 93 (11-12). pp. 1234-1253.

Picchio, M., 'Is training effective for older workers?' *IZA World of Labor*, 2015, p. 121.

Reeves, A., McKee, M. and Stuckler, D., 'Economic suicides in the Great Recession in Europe and North America', *The British Journal of Psychiatry*, 2014.

Rosholm, M., 'Do case workers help the unemployed? Evidence for making a cheap and effective twist to labor market policies for unemployed workers' *IZA World of Labor*, 2014, 2014. Jg., S. 72.

RWI, 'Study on labour market transitions using micro-data from the Statistics on Income and Living Conditions (SILC)', 2014.

Scarpetta, S., Sonnet, A. and Manfredi, T., 'Rising Youth Unemployment During The Crisis: How to Prevent Negative Long-Term Consequences on a Generation?', *OECD Social, Employment and Migration Working Papers*, No 106,

OECD Publishing, 2010, http://dx.doi.org/10.1787/5kmh79zb2mmv-en.

Schmillen, A. and Umkehrer, M., 'The scars of youth — Effects of early career unemployment on future unemployment experience', *IAB Discussion paper*, No 6, 2013.

Schmillen, A. and Umkehrer, M., 'Verfestigung von früher Arbeitslosigkeit — Einmal arbeitslos, immer wieder arbeitslos?', *IAB Kurz-Bericht*, No 16, 2014.

Skans, O.N.,'Scarring effects of the First Labor Market Experience', *IZA DP*, No 5565, 2011.

Social situation monitor, 'Scarring effects of the crisis', Research note 06, 2014.

Solga, H., 'Education, economic inequality and the promises of the social investment state', *Socio-economic Review*, Vol. 12, 2014, pp. 269–97.

Spermann, A., 'Long-term Unemployed Need More Effective Support', *IZA Compact*, November (2014).

Spermann, A. (2015). How to fight long-term unemployment: lessons from Germany. *IZA Journal of Labor Policy*, *4*(1), 1-15.

Stovicek, K. and Turrini, A., 'Benchmarking unemployment benefits systems', *European Commission Economic Papers*, No 454, May 2012.

Vanderbroucke, F., Hemerijk, A. and Palier, B., 'The EU need a social investment pact', *OSE Paper Series*, Vol. 5, 2011.

Van Kersbergen, K. and Hemerijk, A., 'Two decades of change in Europe: the emergence of the social investment model', *Journal of Social Policy*, Vol. 41, No 3, 2012, pp. 475–492.

Young, D., 'Employment protection legislation: its economic impact and the case for reform', *Directorate General of Economic and Financial Affairs, European Commission*, No 186, 2003.

Zwick, T. 'Training effectiveness— Differences between younger and older employees', *Working and Ageing: The Benefits of Investing in an Ageing Workforce*, Cedefop (ed.), Luxembourg: Publications Office of the European Union, 2012, pp. 36–54.