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Labour Market Transitions

Employment, Social Affairs and Inclusion

This note provides an overview of the latest trends on labour market transitions. It was prepared by Alessia Fulvimari and Magdalena Grzegorzewska from the Thematic Analysis Unit in DG EMPL and Lina Salanauskaite from the Country Reform Unit in DG EMPL, benefited from comments of Hannah Kiiver (Eurostat) with reviewing support of Ralf Jacob, Ana Xavier and Robert Strauss (DG EMPL). Any views expressed in this note are those of the authors and do not necessarily correspond to those of the European Commission.

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Table of Contents

1 Introduction

This Web Note presents empirical evidence on labour market transitions in the European Union (EU) using the new flow statistics from the EU Labour Force Survey (EU-LFS) and micro-data from the EU Statistics on Income and Living Conditions (EU-SILC). While the new transition rates from the EU-LFS have the advantage of being more timely, they provide limited information on socio-demographic characteristics and employment conditions. By contrast, EU-SILC micro-data are less timely, but allow more detailed individual characteristics (age, gender, education, type of contract, etc.) to be brought into the analysis.

This study looks at transitions between labour market states (employment, unemployment, inactivity) and their recent trends. In particular, the analysis focuses on:

- quarterly flows into and out of unemployment and employment (based on quarterly flows statistics from the EU-LFS);
- annual transitions from unemployment into employment and inactivity by education level (based on annual experimental flows statistics from the EU-LFS);
- transitions within employment and particularly towards better jobs (based on the EU-SILC micro-data):
  - from temporary to permanent jobs;
  - from part-time to full-time jobs.

Section 2 describes quarterly flows between employment, unemployment and inactivity, providing a more detailed picture of the labour market dynamics that lie behind the net changes in stocks of employment and unemployment. Analysing flows brings insights into what is driving the increase or reduction in unemployment (i.e. is it flows into and from employment or inactivity and to what extent?) and employment during the crisis and recovery. Different drivers require different policies and a more detailed knowledge of labour market dynamics can help policy makers improve their policy design.

As a complement to the quarterly analysis, section 3 uses annual data on flows and looks at transition rates between employment, unemployment and inactivity. It looks at the labour market dynamics (transition rates) by education level, information that is not available on a quarterly basis. This is important as aggregate flows can mask differences between population groups. Indeed, in some groups moves into unemployment or inactivity may occur much more frequently than in others. Again, understanding the movements between labour market statuses for different groups can help policy makers design better targeted policies to improve the labour market situation of each specific group.

Section 4 then focuses specifically on employment dynamics and looks at the moves between types of jobs. The rationale for this analysis is that it is not only important to look at whether there is an increase in employment, but also what types of jobs are being created. It provides some evidence regarding movements between temporary

and permanent jobs and between part-time and full time jobs. This is important to understand the impact of the crisis on the types of jobs but also how much the recovery has translated into better quality jobs.

Section 5 summarises the main findings of the note and provides some questions for future research.

2 What drives changes in unemployment and employment: Insights from quarterly flows

2.1 A new data source – quarterly LFS flow statistics

Eurostat started recently publishing flow statistics (Eurostat 2015a and 2015c) based on the longitudinal Labour Force Survey (LFS). By making use of these new quarterly LFS statistics, this section provides evidence on labour market flows in the EU and in particular:

- Flows in and out of unemployment;
- Flows in and out of employment.

This section will use the terms 'flow statistics' and 'flows', in line with Eurostat terminology.

Timely flow estimates, available now from the LFS, have long been in demand as they allow deeper insights into labour market dynamics. They allow inflows to be disentangled from outflows so as to identify the components responsible for overall changes in the level of unemployment, employment and economic inactivity. Data on flows in different directions permit to address key questions such as: How many jobs have been lost and how many have been gained? What explains the overall increase or decrease in unemployment and employment that is observed?

An advantage of the new LFS quarterly flow statistics is that they allow timely analysis of the labour market which can be updated on a regular basis. They are available around two years earlier than the transition rates published so far on the basis of EU-SILC. The LFS results go back to the second quarter of 2010 with the first results shown for the flows observed between the first and the second quarter. While this time span limits somewhat the analysis as the data do not cover the entire crisis period, it gives important insights on the labour market dynamics during the last six years, including the second dip of the recession and its subsequent recovery and the labour market reaction.

The LFS quarterly flows are, at this stage, not seasonally adjusted figures and therefore display high seasonal variations (Eurostat 2015c). Trends and the economic cycle may be difficult to understand, and reporting data for only a given point in time may lead to an inaccurate assessment of general labour market conditions. Moreover, comparability across Member States is also reduced. On the other hand, high seasonality in flow data is an important phenomenon, and certain flows are more seasonal than others. This section will show some seasonal patterns in flow rates, but will also use rolling averages of four quarters in order to smooth out seasonality and isolate the trend component.

Eurostat publishes the LFS quarterly flows in absolute numbers and as outflow rates which are percentages of employment, unemployment or the inactive population in the previous quarter. This section looks at both a) flows in and out of unemployment and employment and b) at the respective flow rates.

The quarterly flow statistics are available for all EU Member States except Belgium and Germany. Moreover, data for Croatia and Malta are not reliable for some periods, and figures for Luxemburg start only in the second quarter of 2015. Therefore, in this analysis, the EU aggregate presented is based on own calculations and excludes Belgium, Germany, Luxembourg and Malta.

2.2 Flows between working statuses in the EU: Contribution to changes in unemployment and employment

How many jobs have been lost during the crisis? And how many jobs have been created since the recovery? According to LFS data, between the fourth quarter of 2008 and the fourth quarter of 2015, the net change in unemployment in the EU was +4.6 million people aged 15-74; at the same time, the net change in employment in the EU was -0.8 million people. These net changes in aggregate numbers do not show whether there was only job destruction or whether there were also employment replacement and job creation and their extent. Therefore, net changes in levels should ideally be complemented by flow statistics to provide a more complete picture of labour market dynamics. While the LFS quarterly flow statistics do not go back to 2008 and thus cannot provide insights on how many jobs have been lost during the crisis, they can nevertheless give additional insights on the dynamics of the labour market downturn (2012-2013) and of the subsequent recovery (2013-2015).

Comparing three points in time: 2011, 2013 and 2015

The three selected years represent the starting point and two turning points in the labour market situation and dynamics, with a deterioration occurring in 2013 and a recovery in 2015. On average in 2015, among those employed in one quarter, 96% (167.4 million) were still employed in the next quarter[1], 1.6% (2.8 million) became employed and 2.0% (3.5 million) became inactive. Looking at inflow rates, among these employed in one quarter, 2.1% were unemployed and 1.9% were inactive in the previous quarter. Among initially unemployed, 65% (14.0 million) remained in unemployment in the next quarter, 17.3% (3.7 million) became employed and 17.6% (3.8 million) became inactive. Looking ta inflow rates, among these unemployed in one quarter 13.2% were employed and 20.2% were inactive in the previous quarter. The dynamics of flows in 2015 is an improvement compared to 2013, while the situation in 2013 was worse than in 2011 (Table 1).

[1] Figures are rolling averages of four quarters to smooth seasonal variations. Thus, the figures are averages of four quarters of 2011, 2013 and 2015.

Table 1: Flows and flow rates, EU (excluding Belgium, Germany)

	Average quarterly flows (million)			Outflow rates (average quarterly) *% of status in previous quarter*			Inflow rates (average quarterly) *% of status in current quarter*		
	2011	2013	2015	2011	2013	2015	2011	2013	2015
remain in the same status…									
E->E	165.6	164.1	167.4	96	96	96	96	96	96
U->U	13.5	16.2	14.0	68	69	65	67	69	67
I->I	107.3	105.5	105.2	94	93	93	94	93	94
E->U	3.0	3.0	2.8	1.7	1.8	1.6	14.8	12.8	13.2
E->I	4.0	3.6	3.5	2.3	2.1	2.0	3.5	3.2	3.1
U->E	3.2	3.5	3.7	16.4	14.9	17.3	1.9	2.1	2.1
U->I	3.1	3.8	3.8	15.5	16.3	17.6	2.7	3.4	3.4
I->E	3.4	3.1	3.2	3.0	2.8	2.9	2.0	1.8	1.9
I->U	3.7	4.3	4.2	3.2	3.8	3.8	18.3	18.4	20.2

Source: DG EMPL calculations based on Eurostat, LFS.
Notes: Figures are rolling averages of 4 quarters to smooth for seasonality. 'E->E', 'U->U' and 'I->I' represent unchanged labour market status.

Flows in and out of unemployment

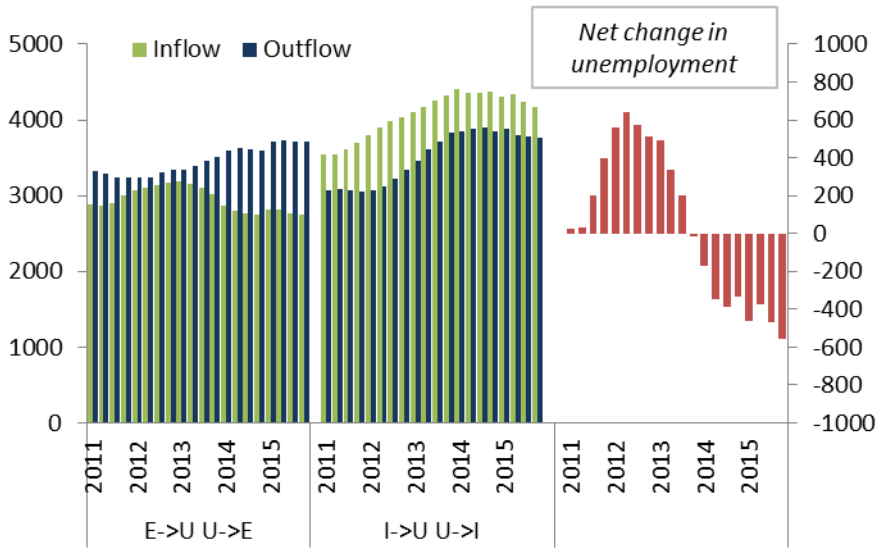
Since 2011 the number of unemployed who find jobs exceeds that of workers becoming unemployed, and also more inactive people become job seekers. Flows from employment into unemployment increased from late 2011 to peak at around 3.2 million people per quarter in the beginning of 2013. They weakened gradually to 2.7 million per quarter two years later (Chart 1a, bars on the left). Outflows from unemployment to employment have gradually strengthened since mid-2013 to reach 3.7 million per quarter in 2015. Overall, the net flows point to positive trends within employment and unemployment, as more unemployed find jobs than workers are becoming unemployed.

At the same time, quarterly flows out of inactivity into unemployment have significantly outnumbered the reverse flows (Chart 1b, bars in the middle). Flows from inactivity into unemployment continuously rose to reach nearly 4.5 million per quarter in mid-2013. Flows from unemployment into inactivity have steeply increased to nearly 4 million per quarter in 2014. Flows from inactivity into unemployment and flows from unemployment into inactivity stagnated in late 2014 and started to decline on 2015.

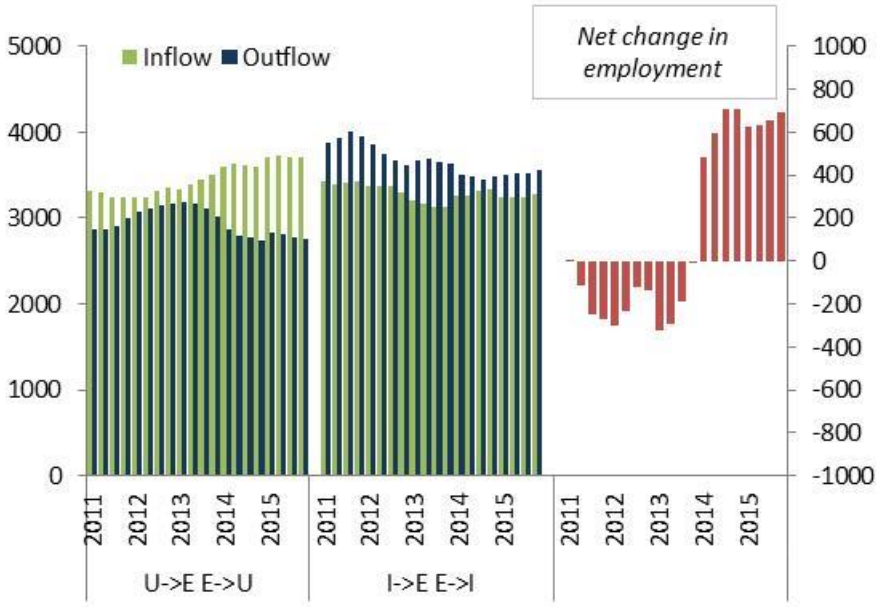
This increase in flows from inactivity to unemployment can be seen as a positive development as it points to an increasing attachment to the labour market. Indeed, the participation rate of the population aged 15-64 increased from 70.7% in the fourth quarter of 2008 to 72.7% in the fourth quarter of 2015. This is especially important given the double-dip recession. The continuous improvement in labour market participation could mean that, during a recovery, employment will grow faster. However, the steep increase in outflows from unemployment into inactivity observed up to 2014 is worrying and has yet to be reversed.

Chart 1: Flows and net changes in unemployment and employment, EU (excluding Belgium and Germany)

a) Unemployment



b) Employment



Source: DG EMPL calculations based on Eurostat, LFS.
Notes: Figures are rolling averages of 4 quarters to smooth for seasonality. Green and blue bars represent flows ('000) (lhs). Flows between employment and unemployment are repeated in two charts. Red bars represent net changes ('000) (rhs).

These flow statistics show that labour markets were rather dynamic even during the second dip of the recession and that, at EU level, there were substantial numbers of people moving into employment, potentially implying the creation of new jobs which compensated for redundancies.

The four types of quarterly flows into and out of unemployment shaped the overall tendency in net changes in unemployment (Chart 1a, bars on the right). Up till mid-2013, unemployment increased, in line with an increase in inflows from employment and a steep increase in inflows from inactivity. Then the labour market recovery gained ground and unemployment started to decline as the flow from inactivity to unemployment subsided.

More recently, in late 2014 and the first half of 2015, flows between employment and unemployment stabilised, with flows to employment exceeding inflows from employment, while flows (in both directions) between unemployment and inactivity slightly declined. This is reflected in declining unemployment rates in the EU: to 9.0% in the fourth quarter of 2015 from 9.3% in the previous quarter and 10.0% a year before. By the end of 2015 these dynamics are likely to have further improved as the unemployment rate went down more noticeably to 8.8% in the first quarter of 2016.

Flows in and out of employment

The chart on flows from and into employment (Chart 1b, bars on the left) mirrors the picture just described for unemployment. Since 2011, flows from unemployment to employment have always dominated the reverse flows[2].

At the same time, quarterly flows from inactivity into employment have been outnumbered by flows from employment into inactivity, but the difference has been diminishing (Chart 1b, bars in the middle). Flows from inactivity decreased to around 3 million per quarter in mid-2013 before picking up again to around 3.3 million in 2013-2014, a positive development. Flows into inactivity have continuously declined to around 3.5 million per quarter in 2014-2015 which again underlines the strengthening of the labour market recovery observed since 2013. However, one should keep in mind that these figures cover the population aged 15-74 and that the results may reflect cohort effects which may result in an increased flow into particular types of inactivity and notably retirement). As with the flows between employment and unemployment, some stagnation in flows out of and into inactivity has been observed since late 2014. Overall, the difference between flows from inactivity to employment and the reverse flows, which widened significantly in 2011, has been closing. The decreasing flows from employment into inactivity are encouraging; they may imply that fewer people become discouraged by the labour market situation, but possibly also that pension reforms keep people longer on the labour market. The combined moves of inactive people to both employment and unemployment amounts to a significant improvement in the EU activity rate.

[2] Flows from unemployment to employment have gradually strengthened to exceed 3.6 million per quarter in 2014-2015. Flows in the opposite direction peaked at around 3.2 million per quarter in the beginning of 2013 and weakened gradually to 2.7 million per quarter two years later.

The pattern of four types of quarterly flows into and out of employment shaped the overall employment trend (Chart 1b, bars on the right). Up till mid-2013, overall employment decreased, in line with larger flows from employment into unemployment and inactivity, which exceeded flows into employment from unemployment and inactivity. Then the economic recovery gained momentum, and employment started to grow, mainly due to the better balance in flows between employment and unemployment.

More recently, in late 2014 and the first half of 2015, flows between employment and unemployment stagnated, with flows into employment exceeding flows into unemployment, while flows between unemployment and inactivity even shrank.

This note only describes the flows between labour market statuses. Further research is needed to understand the drivers of these flows (see for instance European Commission, 2015). Regarding inactivity, previous research suggested that a decrease in household income may have prompted some other household members to search for jobs. Additionally, changes in existing labour market institutional arrangements such as active labour market policies may have encouraged previously inactive individuals to search for a job.

Flow rates for the EU – flows in perspective and seasonality

How large are the flows described above? Inflow rates relate absolute flows to employment, unemployment or inactivity at the final quarter, outflow rates relate absolute flows from employment, unemployment or inactivity to the initial quarter[3].

As can be seen, high seasonality is a striking phenomenon. Seasonality affects flows and flow rates to various degrees. The note therefore computes rolling four-quarter averages which present the underlying trends (Chart 2).

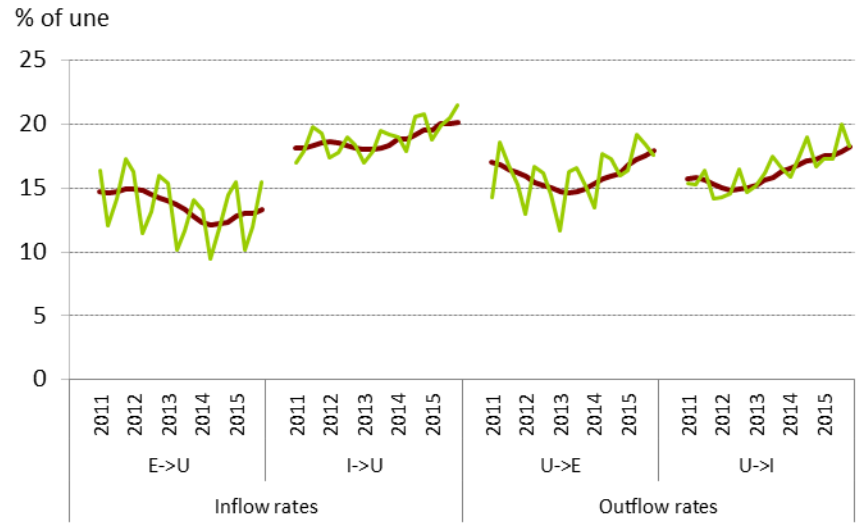
The inflow rate from employment to unemployment declined from around 15% of unemployment in 2011-2012 to about 13% in 2015. The inflow rate from inactivity to unemployment went from 18% of unemployment in 2011 to 20% in 2015. The outflow rate from unemployment to employment return to around 17% of unemployed, after the deep of 15% registered in 2013. The outflow rate from unemployment to inactivity increased from around 15% of unemployment in 2011-2012 to 17% in 2015 (Chart 2a).

The inflow rate from unemployment to employment increased from 1.9% of employment in 2011-2012 to 2.1% in 2014-2015. The inflow rate from inactivity to employment decreased from around 2% of employment in 2011 to 1.9% in 2015. The outflow rates from employment to unemployment went down from around 1.7% of employment in 2013 to 1.6% in 2015. The outflow rate from employment to inactivity decreased from around 2.3% of employment in 2011 to 2% in 2015 (Chart 2b).

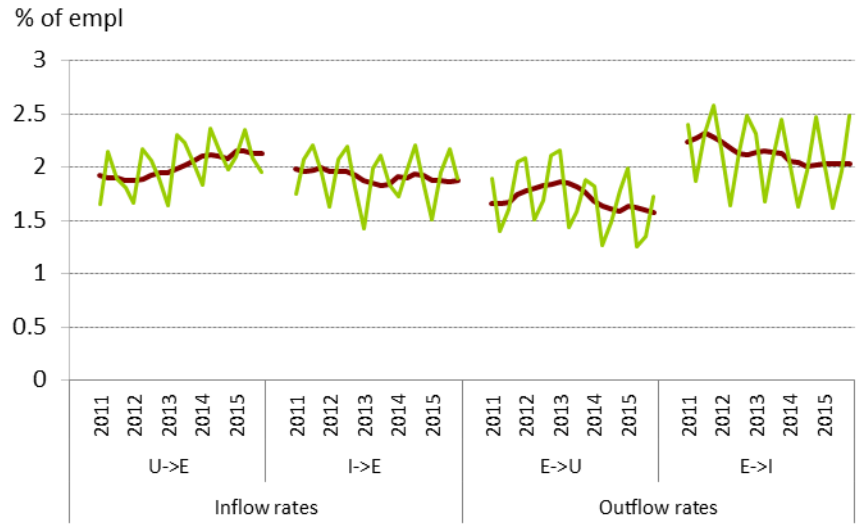
[3] 'Adjusted' rates are constructed here to enable comparison between inflows and outflows. 'Adjusted rates' relate both inflows and outflows to the same denominator: average unemployment or average employment over the reference quarter and the previous quarter. They are constructed, because standard inflow rates represent a percentage of the final status, while standard outflow rates represent a percentage of the initial status.

Chart 2: Flow rates in unemployment and employment, EU (excluding Belgium and Germany)

a) Unemployment



b) Employment



Source: DG EMPL calculations based on Eurostat, LFS [lfsi_long_q].
Notes: Green lines represent non-seasonally adjusted flow rates. Red lines represent flow rates, which are rolling averages of 4 quarters to smooth for seasonality and exhibit trend.

2.3 Flow rates for Member States – different dynamics, same changes in labour market variables

The encouraging labour market dynamics at the EU level mask differences across Member States. This section looks at the dynamics in individual Member States, notably during the economic crisis.

The recent developments in levels and net changes from the LFS indicate that overall labour markets continued to improve in 2015 in most Member States. However, the dynamics behind net changes in unemployment and employment have varied and continue to vary in Member States.

Comparisons of flow statistics across Member States are based on four-quarter rolling averages rates both for inflows and outflows, to eliminate seasonal fluctuations and thus facilitate comparisons between Member States.

On average in 2015, quarterly net changes in unemployment were negative and quarterly net changes in employment were positive in most Member States. Flows out of unemployment were higher than flows into unemployment in all Member States except Austria and Finland (Chart 3a). Flows into employment were higher than flows out of employment in all Member States, except Cyprus, France and Romania (Chart **3**b).

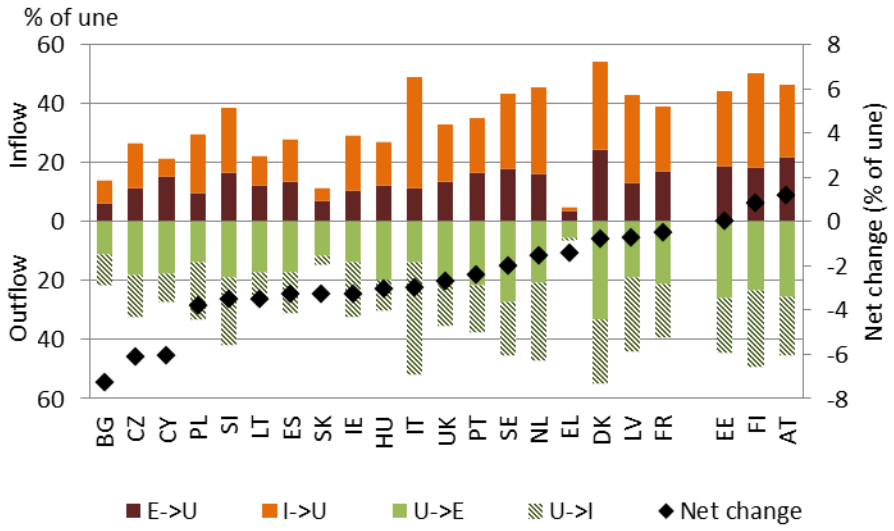
Even when net changes in unemployment and net changes in employment were in general favourable, the structure of flows points to different dynamics in labour markets across the EU. Very low flows into and out of unemployment can be observed in Bulgaria, Greece and Slovakia, whereas flows in both directions are high in Austria, Denmark, Finland, Italy and the Netherlands. However, in each of these groups the similar dynamics led to different net changes in unemployment, for instance leading to an increase in unemployment in Austria and Finland, a modest decline in Denmark and Italy and a sharper one in Italy.

Weak flows in and out of employment characterised Slovakia, Poland and the Czech Republic; the opposite was the case in Finland, Portugal, Slovenia and Spain. However, weak flows in the former group and large flows in the latter group may have contributed to different net changes in employment.

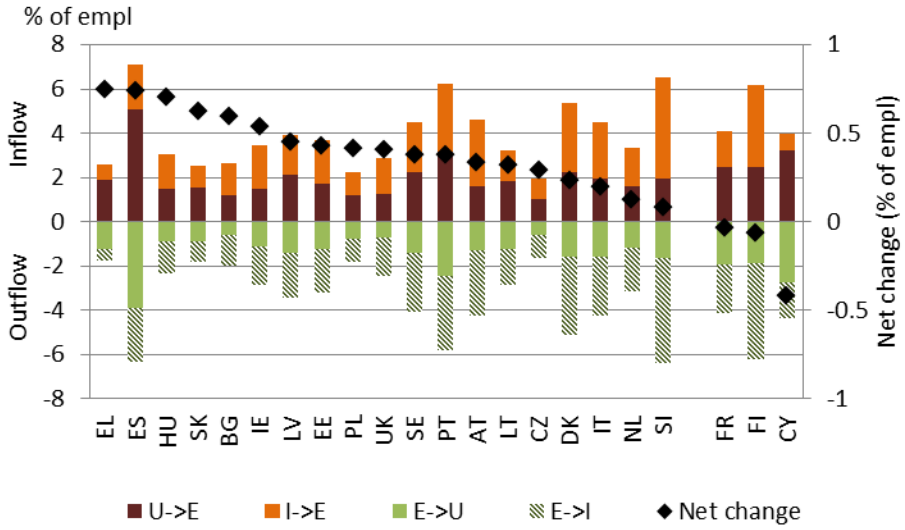
The next section will describe in more detail changes in outflow rates (transition rates) from unemployment into employment and inactivity between 2012-2013 and 2013-2014.

Chart 3: Flow rates, EU Member States, 2015

a) Unemployment



B) Employment



Source: DG EMPL calculations based on Eurostat, LFS.
Data not available for BE and DE; data not available or reliable data for some quarters of 2015 for HR, LU, MT and RO. The rates are rolling averages of four quarters to smooth for seasonality and give comparable picture among countries. Inflow rates are above 0 and outflows are below 0 (lhs). Flow rates between employment and unemployment are repeated in two charts. Diamonds represent 'rates of net changes (rhs).

3 Probing deeper into transitions into and out of unemployment

While the previous section looked at the **quarterly** flow statistics and how they determine the observed net changes in overall employment, unemployment and activity, this section uses the new and still experimental LFS ***annual*** flows statistics.

This type of statistics was provided on an ad-hoc basis by EUROSTAT, with information available on transitions from unemployment in 2012 and in 2013. The flow statistics show the percentage of the unemployed who became employed or stayed in unemployment in the following year (i.e. 2013 and 2014, respectively). The available flow statistics complement the data presented in the previous section on quarterly flows by providing a) annual estimates of transition rates and b) by providing insights on transition rates by educational level, information that is not available from the quarterly data.

One of the major advantages of annual data on transition rates is that they are not affected by seasonal variations, unlike quarterly LFS flow statistics. In comparison to the EU-SILC longitudinal data that will be explored in Section 4, annual longitudinal transition rates based on the LFS cover 2014 and provide thus more recent, albeit less detailed information.

3.1 Unemployment dynamics: Changes between 2013 and 2014

Chart 4 shows the changes in unemployment rates and in the transition rates between unemployment and employment, between unemployment and inactivity and remaining in unemployment for 2013 and 2014 (with transitions referring to the change in status between 2012-2013 and 2013-2014, respectively). Between 2013 and 2014, unemployment rates rose (by 0.2 percentage points (pp) or more) in four Member States (Italy, Finland, Cyprus Austria), dropped in eighteen (by 0.2 pp or less) and remained stable (changing by less than 0.2 pp) in six Member States (Sweden, France, Croatia, Belgium, Luxembourg and the Netherlands).

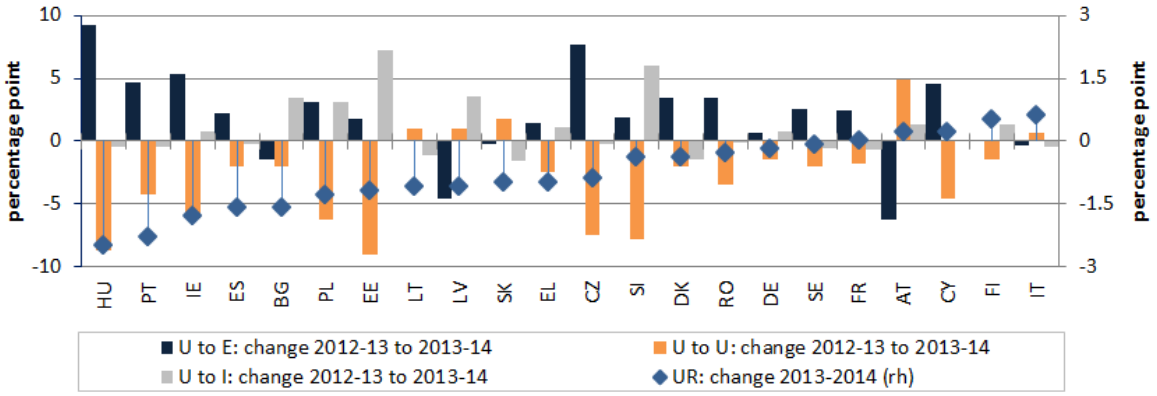
For the large majority of Member States, the recent (2013 to 2014) decrease in unemployment rates was the result of increasing flows from unemployment to employment as shown by positive values of the black bars and negative yellow bars. This shows that unemployment dropped not just because of fewer people entering/staying in unemployment, but also because the unemployed were more likely to find employment.

Nonetheless, declining unemployment rates were not the result of increasing transition rates from unemployment into employment (black bars) in all Member States. In some Member States, unemployment rates declined thanks to higher transition rates to inactivity, as shown by the grey bars. This was the case of Bulgaria, Poland, Estonia, Latvia, Greece or Slovenia, pointing to specific labour market disadvantages of the unemployed in these countries. For example, since the onset of the crisis in 2007, the long-term unemployment rate (as % of the active population) has tripled in Latvia to 4.7% in 2014 and doubled in Bulgaria to 7.6% in 2014 (European Commission, 2015a).

In Slovakia, a decrease in the unemployment rate occurred in spite of increased transition rates from unemployment to unemployment, signalling that unemployment has become more persistent. Slovakia now stands out in the EU with one of the highest long-term unemployment rates (i.e. 9.3% in 2014), and the decline in unemployment is thus primarily driven by falling short-term unemployment.

Cyprus experienced an increase in unemployment rates and a slight improvement in the labour market, indicated by increased transition rates from unemployment into employment (positive black bar).

Chart 4: Changes in unemployment rates (rhs) and transition rates (lhs) from unemployment to employment (U to E), unemployment to inactivity (U to I) or staying in unemployment (U to U), EU Member States



Source: DG EMPL presentation of Eurostat experimental LFS flow statistics and LFS data [une_rt_a]
Notes: Data are not available for Belgium, France, Luxembourg, the Netherlands, Malta and the UK. Countries are ranked by the change in unemployment rate (UR).

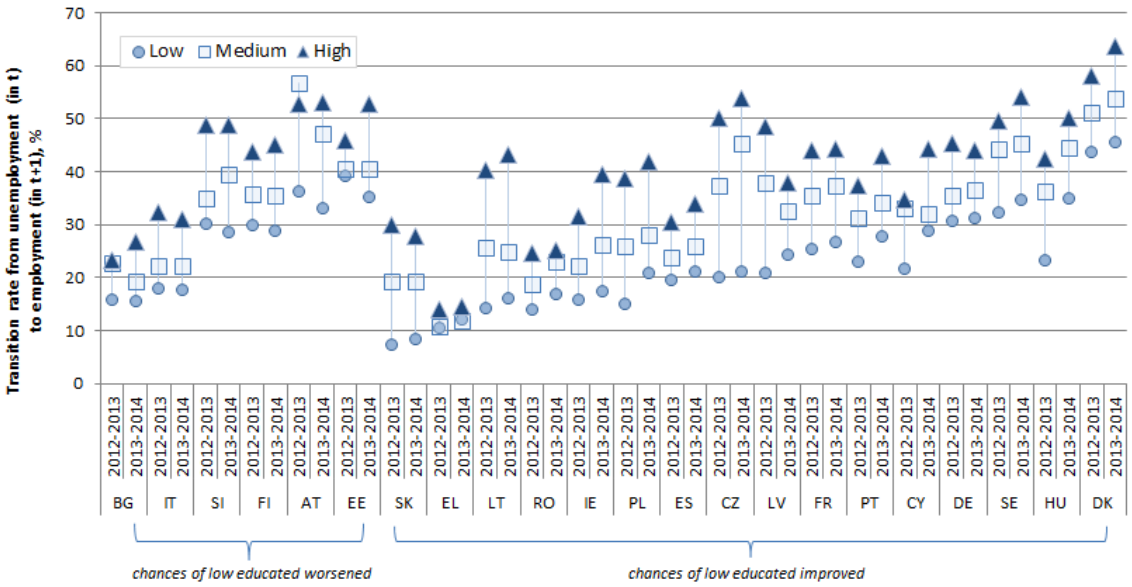
3.2 Educational attainment and the ability of moving out or staying in unemployment

Moving from unemployment to employment

The chances of moving from unemployment into employment were lower for the low educated unemployed, although they rose in most Member States between 2013 and 2014 (Chart 5). Among the twenty-two countries for which data are available, annual transition rates from unemployment to employment among the low-educated increased in sixteen Member States, with the largest increases observed for Hungary, Cyprus, Portugal, Latvia and Poland.

Transition rates from unemployment to employment among the low educated are typically much lower than the transition rates of those with medium or high education levels, but there are big differences in these education gaps in transition rates across Member States. Greece was the only country where the transition rates for the low-educated were about the same as for the medium and higher-educated; they were extremely low regardless of the level of education.

Chart 5: Transition rates from unemployment to employment by education, EU Member States



Source: DG EMPL presentation based on Eurostat experimental LFS flow statistics
Notes: Data are not available for Belgium, France, Luxembourg, the Netherlands, Malta and the UK. Countries are ranked by the change (from 2013 to 2014) in transition rates of the low-educated.

In general, the transition rates changed in the same direction for all education levels, but there were some exceptions. For example, in Slovakia and Latvia, the transition rates into employment for the low-educated increased while the chances of both medium and high-educated unemployed worsened.

Six countries (Bulgaria, Italy, Slovenia, Finland, Austria and Estonia) experienced decreasing transition rates into employment for the low-educated unemployed. Yet, in each of these countries, bar Italy, transition rates improved or remained stable (i.e. Slovenia) for the high-educated. The picture for the medium-educated was more mixed, with transition rates increasing in Slovenia, but decreasing in Bulgaria and Austria.

Staying in unemployment

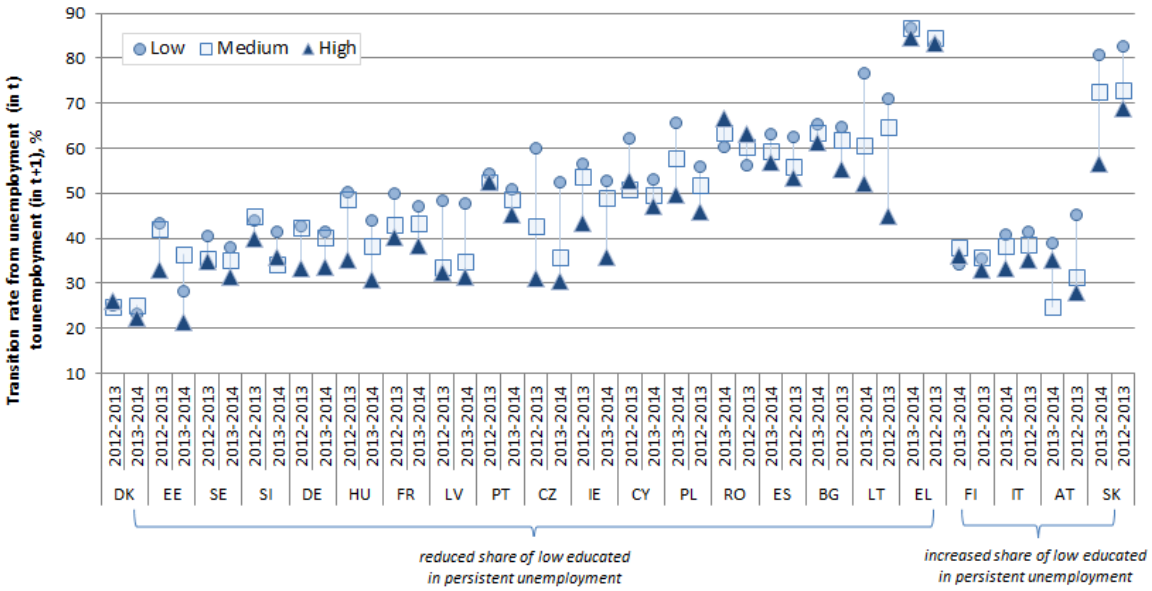
Low-educated unemployed are more likely to suffer from longer unemployment spells than those with medium and high levels of education (Chart 6). An exception to this observation would be Romania, where a higher share of the highly-educated remained in unemployment (across the period of two years) in comparison to the medium and low-educated.

Overall, the differences in the likelihood of remaining unemployed by education level tend to be smaller than they are for transitions from unemployment into employment. In addition to the different cyclical contexts across countries, particularly unfavourable labour market conditions could similarly affect the chances of all unemployed in exiting unemployment. For example, almost no difference in transition rates by educational

attainment level was observed in Portugal (in 2013) and Greece (both in 2013 and 2014), which could be associated with particularly unfavourable labour market conditions pertaining to both countries during these specific periods.

In most countries, there was a smaller share of the low-educated remaining unemployed across the period of two years from 2013 to 2014. This goes well in line with the observed improvement in transition rates from unemployment into employment. In four countries, though, (Finland, Italy, Austria and Slovakia) the share of the low-educated remaining unemployed increased. It should be noted, however, that three countries from the latter group – namely Finland, Austria and Italy – had overall among the lowest shares of people remaining in unemployment, with also relatively small differences across education levels (except for Austria). Slovakia could be noted as a country with a particular challenge of a high and increasing share of people remaining unemployed. In contrast, Denmark stood out with the lowest share of people remaining unemployed.

Chart 6: Transition rates from unemployment to unemployment by education, EU Member States



Source: DG EMPL elaborations based on EUROSTAT experimental EU LFS flow statistics.
Notes: countries are first ranked by a change (from 2012-2013 to 2013-20114) in transition rates of low educated and then (within the group) by the level of a transition rate of low educated during 2013-2014.

4 Staying in employment and moving towards better jobs: Insights from EU-SILC

This section describes different types of yearly labour market transitions for those in employment. The analysis, applied to employees aged 15-74[4], focuses on the following transitions:

- Between types of contractual arrangements – from temporary to permanent jobs;
- Between types of working time arrangements – from part-time to full-time jobs;

For each type of transition just listed, figures will be provided by gender, educational level and age group. Transitions are calculated using the EU-SILC data. As mentioned above, despite their more limited timeliness when compared to the EU-LFS, EU-SILC micro-data can allow for a deeper analysis, thanks to the detailed information on socio-demographic characteristics and employment conditions available at individual level.

Due to data reliability issues for some age groups in some countries (too small sample size), the analysis by age group will only be presented at EU level. Depending on the type of transition and the level of breakdown, EU-SILC data will refer to 2013 (i.e. transitions between 2012 and 2013) or to 2012 (i.e. transitions between 2011 and 2012). In particular, transitions from temporary to permanent jobs by gender are based on the most recent EU-SILC data available on the Eurostat online database at the time of drafting this Web Note, which is 2013. For the remaining analysis - transitions from temporary to permanent jobs by educational level and age group, and transitions from part-time to full-time jobs - figures are based on 2012 longitudinal micro-data. (the latest longitudinal dataset for which the information is available for all EU28 Member States except Germany and Ireland at the time of drafting this Web Note). To the extent possible, the section presents figures on the general evolution of transitions since the crisis.

4.1 Moving from temporary to permanent jobs

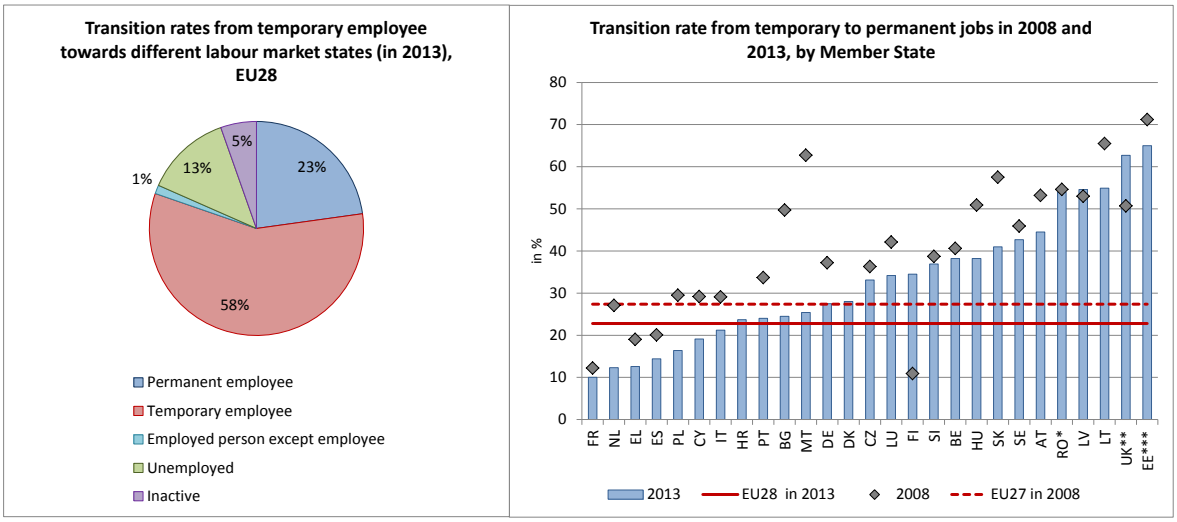
More than half of the temporary employees in the EU28 do not appear to change their status in the space of a year: between 2012 and 2013 the share of temporary employees who remained in temporary employment was around 58% (Chart 7, first panel). Only 23% of the employees on a temporary contract in 2012 moved to a permanent job in 2013. The remaining 19% of temporary employees moved to unemployment (13%), inactivity (5%), and other forms of employment (i.e. "employed persons except employees" such as self-employment, 1%)[5].

The transition rate from temporary to permanent contracts varies widely across the EU (Chart 7, second panel). It ranges from 10% in France to 65% in Estonia. After the economic crisis, these transition rates for temporary employees deteriorated in most

[4] Self-employed are not included in the analysis.
[5] For more details on transitions across different employment states including contractual arrangements see Table A.1 in Annex.

Member States. Only Finland, UK and Latvia saw improvements, i.e. a higher share of temporary employees moving to permanent jobs. For the EU as a whole, the probability of moving from a temporary to a permanent job within one year decreased by around 4.6 pp between 2008 and 2013.

Chart 7: Transition rates from temporary jobs towards different employment states, EU28 and EU Member States



Source: Eurostat, EU-SILC [ilc_lvhl32]

*Notes: Data on EU-SILC transitions are not available for IE. *2013 data for RO are not available and have been replaced by 2012 data. **2008 data for UK are not available and have been replaced by 2007 data. ***2008 data for EE have limited reliability. Figures refer to yearly transition rates (between 2012 and 2013).*

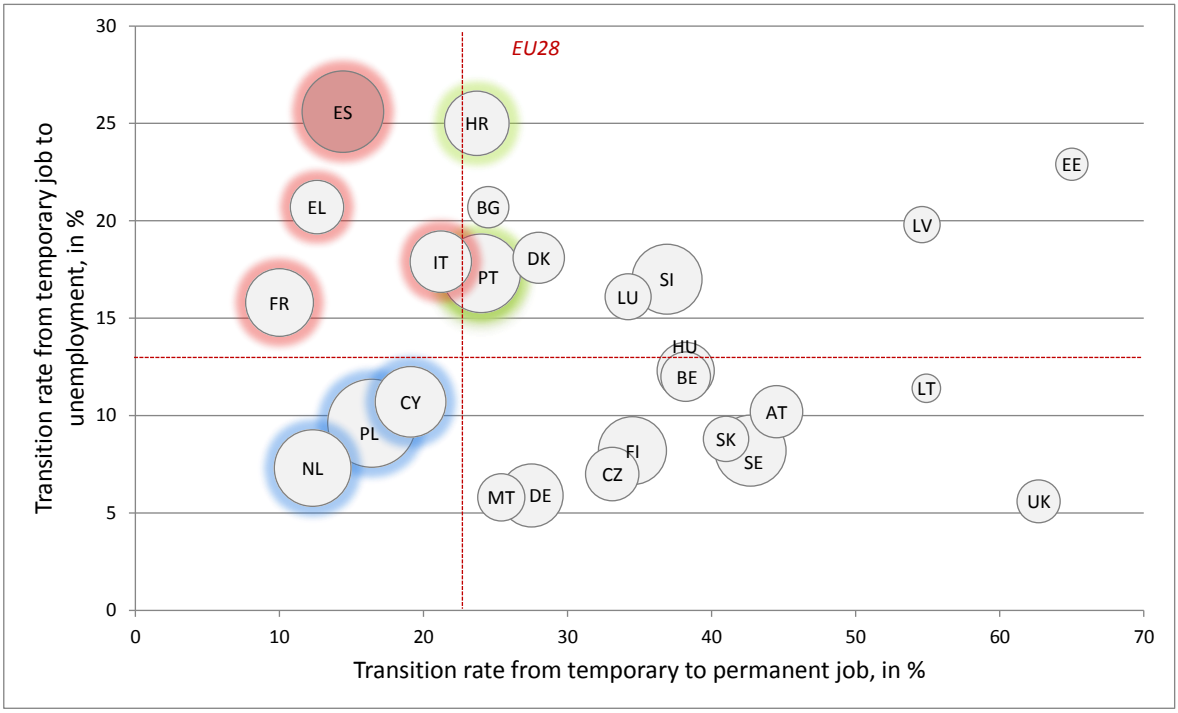
Low transition rates from temporary to permanent jobs may indicate that temporary jobs are "dead ends" rather than "stepping stones" in some Member States (Booth et al., 2002). This is even more likely to be true when low transitions from temporary to permanent are coupled with high transitions from temporary employment towards unemployment or inactivity. As Chart 8 shows, this is particularly the case of Spain, but also Greece, Italy and France, all located on the top-left side of Chart 8. These are countries for which temporary employees have a transition rate to permanent jobs that is below the EU28 average and a transition rate towards unemployment that is above the EU28 average. Greece, Italy and France have, however, lower shares of temporary employees than Spain. As Chart 9 shows the share of temporary employees in the EU28 varies from below 2% in Romania to around 27% in Poland.

Spain has the second highest share of temporary employees across the EU28 after Poland (23.1%), but also one of the lowest transition rates to more stable jobs (14%) and the highest transition rate towards unemployment (26%). This indicates that temporary employees in Spain are the most vulnerable across the EU due to their relatively low chances of moving to more secure jobs.

In addition to the striking case of Spain, temporary employees also represent a very high share of all employees in Portugal and Croatia where they have very high transition rates into unemployment and relatively low transition rates to permanent jobs (top-right side of Chart 8). In Poland, the Netherlands and Cyprus (bottom-left

side of Chart 8) temporary employees also represent a significant share of all employees and have low transition rates to permanent contracts. By contrast, Lithuania and UK (bottom-right side of Chart 8) combine a low share of temporary employees with high transition rates to permanent jobs as well as low transition rates to unemployment.

Chart 8: Share of temporary employees and transition rate from temporary to permanent job vs. transition rate from temporary job to unemployment, EU Member States, 2013

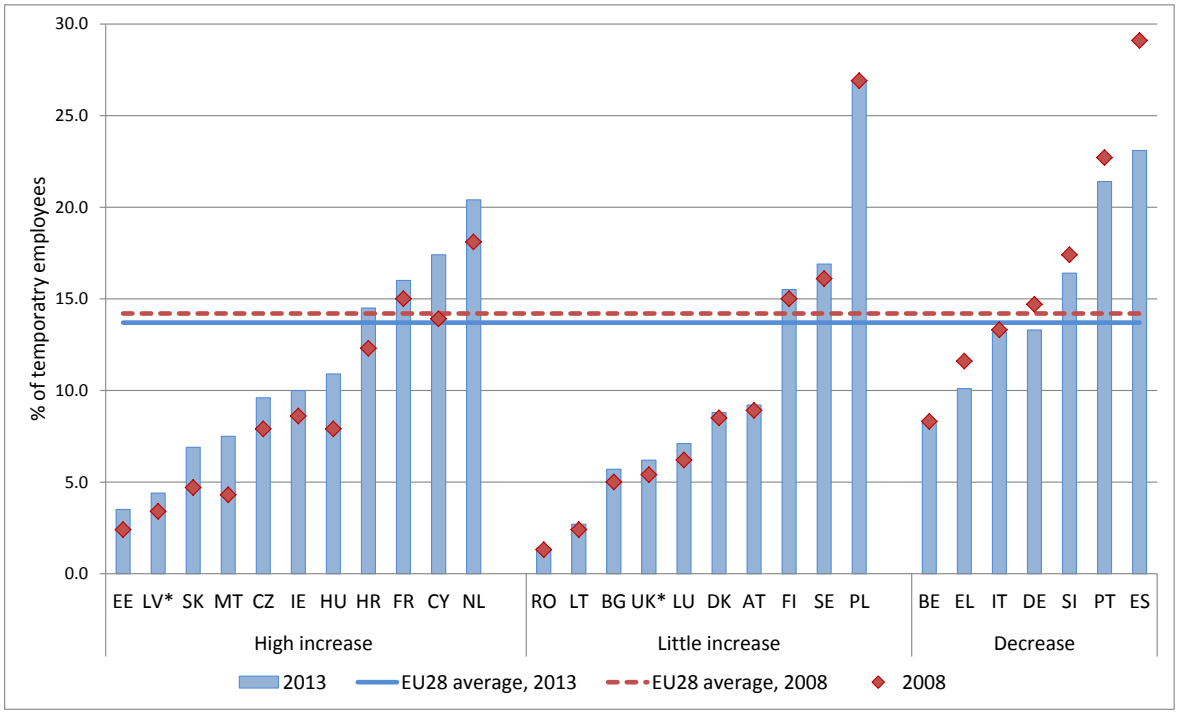


Source: Eurostat, LFS [lfsa_etpga] and EU-SILC [ilc_lvhl32]

Notes: Data on EU-SILC transitions are not available for IE. In addition, transition data from temporary employment towards unemployment are not available for RO, which is therefore not included in the Chart. The bubble size represents the share of temporary employees in the total number of employees which ranges from 27% (PL) to 3% (LT): the higher this share, the bigger the bubble. Figures refer to yearly transition rates (between 2012 and 2013). Red horizontal and vertical lines denote the EU28 average.

In most EU Member States, the share of temporary employees in the total number of employees increased between 2008 and 2013 (Chart 10). This increase occurred, in a majority of countries, alongside a drop in the transition rate from temporary to permanent jobs (Chart 10, red bar), while the transitions into unemployment (Chart 10, blue bar) increased significantly.

Chart 9: Shares of temporary employees, EU Member States, 2008 and 2013

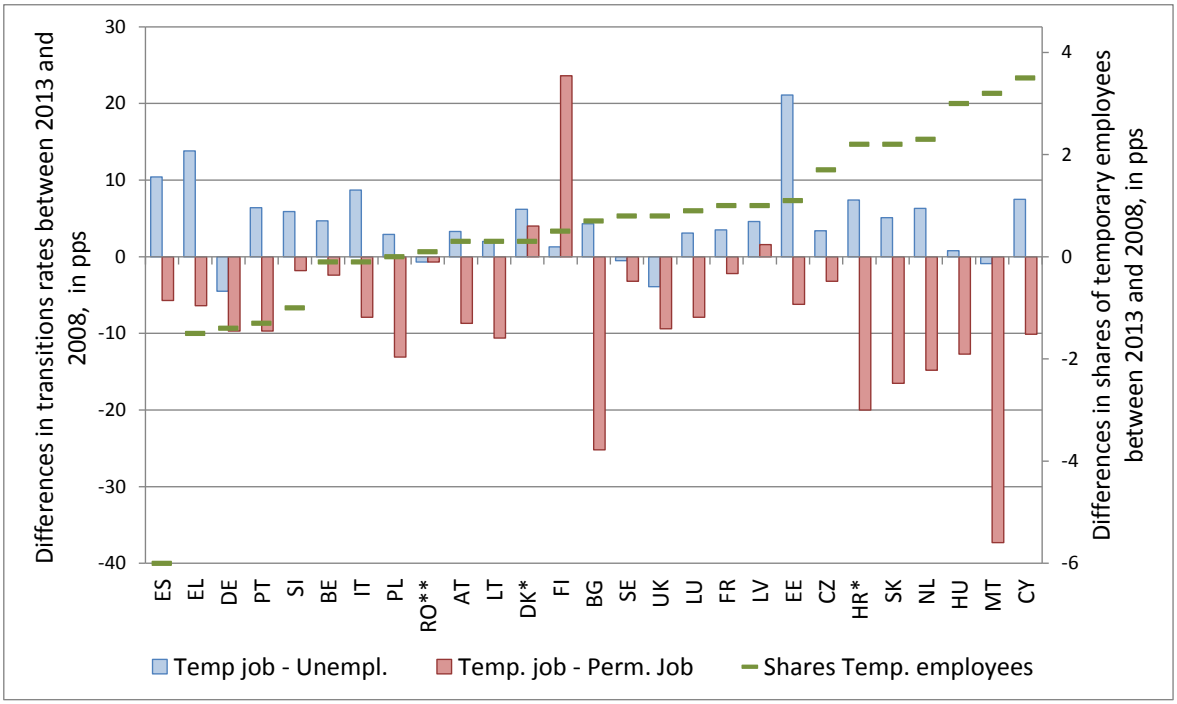


Source: Eurostat, LFS [lfsa_etpga].
*Notes: *2008 data on the share of temporary employees for LV and UK have a break in the time series.*

These trends may be linked to the economic crisis, but the wider use of more atypical employment may also result from more structural determinants such as population ageing, globalisation and technological change which may allow and require more flexible working arrangements. The crisis may nevertheless have reinforced the more general trend to use atypical employment contracts to reduce hiring and firing costs (European Commission, 2016b). Companies using internal flexibility to adjust working patterns during the crisis may have been able to reduce costs temporarily while retaining firm-specific knowledge and helping workers to maintain their jobs and income. In addition, in a downturn and in the context of low aggregate demand, temporary contracts were the first not to be renewed. Interestingly, they were also the first to increase at the early stage of the 2013 economic recovery, explaining the initial labour market recovery.

In Spain, the share of temporary employees in the total number of employees decreased by around 6 pp between 2008 and 2013 – against the general trend (Chart 10). A recent study which compared the French and Spanish labour markets (Bentolila et al. 2012) pointed out that prior to 2008, temporary employment grew strongly in Spain, leading to high overall employment growth, while the labour market was rather stagnant in France. According to Bentolila et al., the large increase in unemployment in Spain during the crisis is related to the collapse in temporary employment.

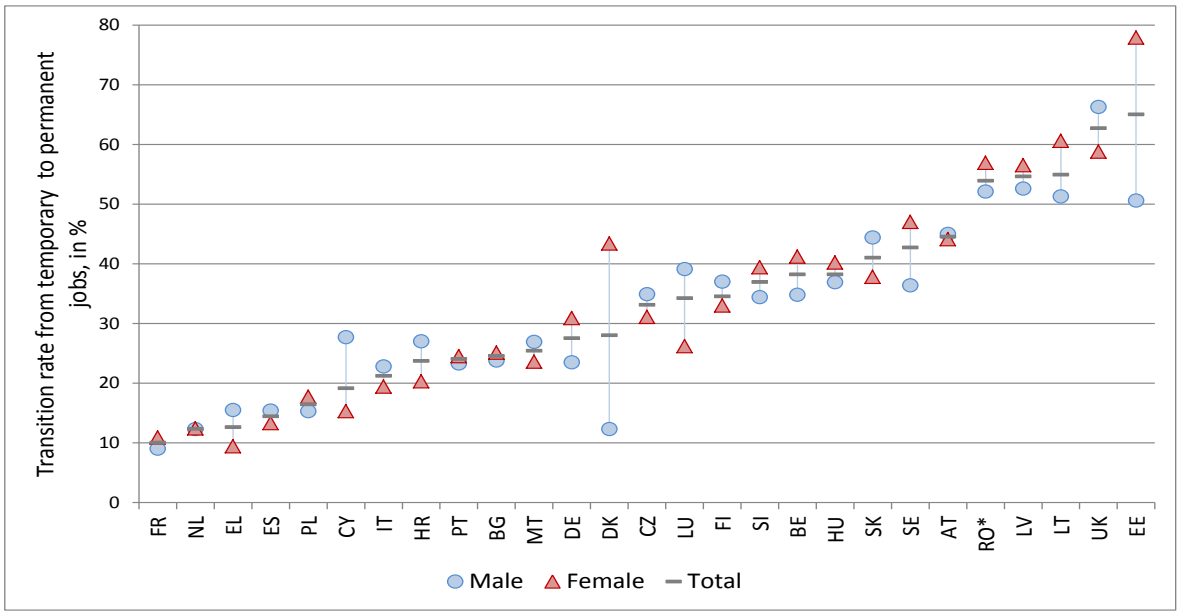
Chart 10: Differences in shares of temporary employees, transitions from temporary to permanent jobs and transitions to unemployment, EU Member States, between 2008 and 2013



Source: Eurostat, LFS [lfsa_etpga] and EU-SILC [ilc_lvhl32]
*Notes: Data on EU-SILC transitions are not available for IE. *2008 data on transitions not available for DK, HR and UK and respectively replaced by 2012, 2011 and 2010 data. **2013 data on transitions for RO not available and replaced by 2012 data. 2008 transitions data for EE and UK have limited reliability. In addition, 2008 data on the share of temporary employees for LV and UK have a break in the time series. Figures refer to yearly transition rates (2007-08 and 2012-13).*

As Chart 11 shows, in most EU Member States gender differences in transition rates from temporary to permanent jobs are not high (this finding is in line with de Graaf-Zijl et al., 2011). Women as temporary employees are relatively advantaged compared to men in Denmark and Estonia – where the transition rate from temporary to permanent jobs is respectively around 31 and 27 pp lower for men. This may have to do with the gender representation across occupations and the respective use of temporary contracts. By contrast, women employees working on a temporary basis have much lower chances than men to find a stable job in Luxembourg and Cyprus. In general, no gender effect (i.e. the gender gap in the transition rate from temporary to permanent jobs) is found among those countries which have the highest share of temporary employees (e.g. Poland, Spain, Portugal and the Netherlands).

Chart 11: Transition rates from temporary to permanent job by gender, EU Member States, 2013



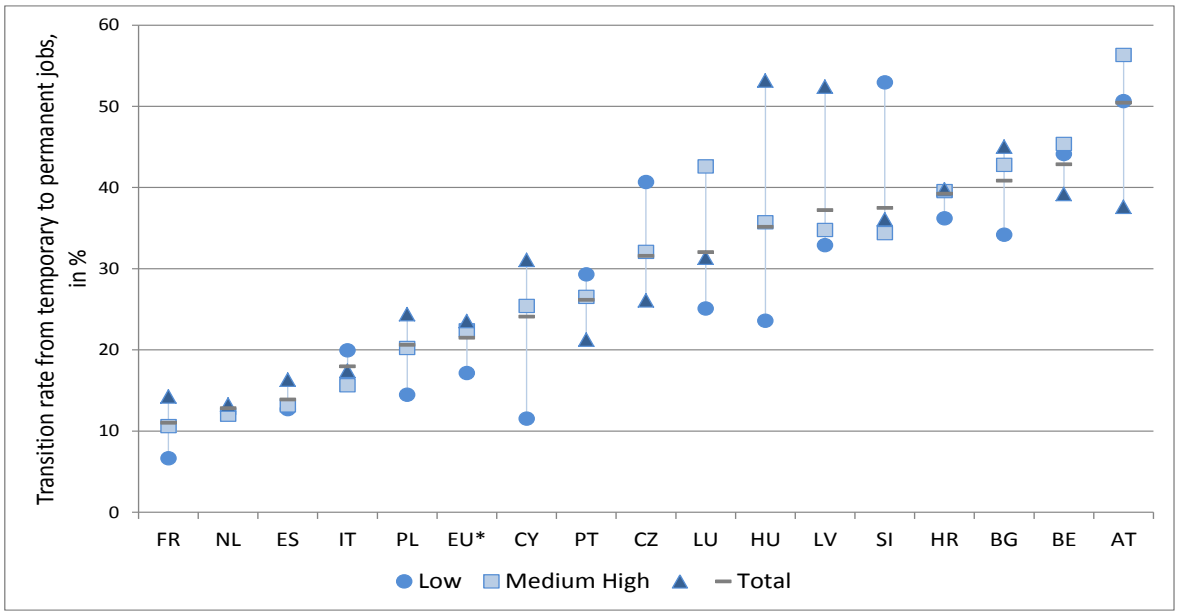
Source: Eurostat, EU-SILC [ilc_lvhl32]

*Notes: Data on EU-SILC transitions are not available for IE. Data by gender have limited reliability for ES, DK, RO, LV, LT and EE. *2013 data for RO are not available and have been replaced by 2012 data. Figures refer to yearly transition rates (between 2012 and 2013).*

In most EU Member States for which data are available, temporary workers with a high educational level have higher chances to move into permanent employment contracts compared to those with lower education (Chart 12). However, the educational effect is modest in the majority of countries, with some exceptions such as Hungary and Latvia. In Slovenia, temporary workers with a medium educational level seem to have higher probabilities to find a more stable job than those with a lower or higher educational level.

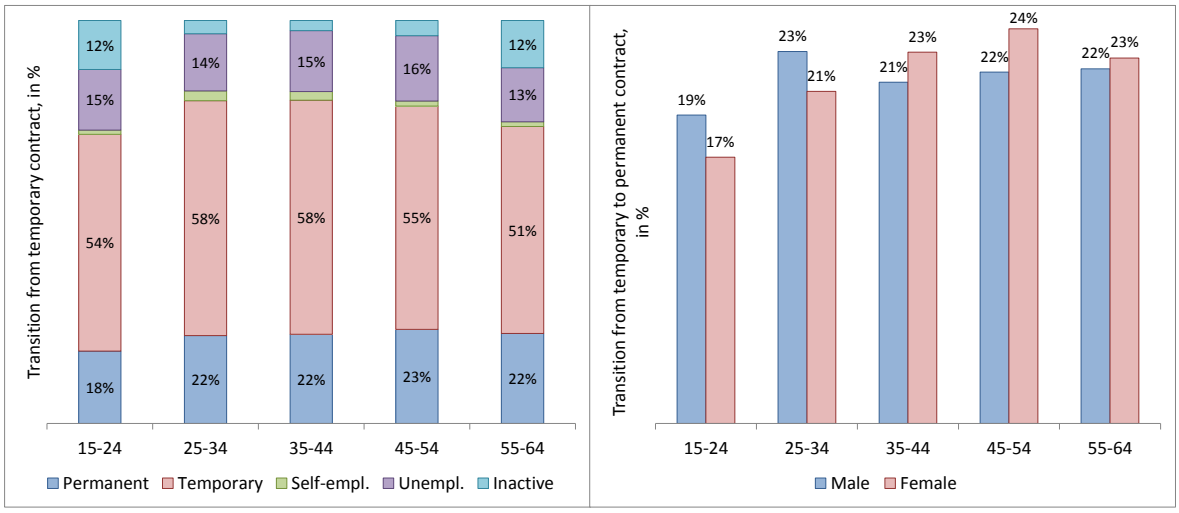
As shown in the first panel of Chart 13, for the EU as a whole, the probability of moving from temporary to permanent contracts over one year is the lowest for young people aged 15-24 years. Age differences are lower for temporary employees aged 25 years or above as the chances of moving from temporary to permanent employment are almost the same across different age groups (around 22%). Interestingly, young men aged 15-34 years have a higher transition rate from temporary to permanent jobs than young women, while the opposite can be observed for employees aged 35 or above where the transition rate to permanent jobs is higher for women (Chart 13, second panel). Thus, young women may be a particularly disadvantaged group in terms of the chances to move into more secure jobs.

Chart 12: Transition rates from temporary to permanent job by educational level, EU Member States, 2012



Source: DG EMPL calculations based on EU-SILC longitudinal micro-data
Notes: EU include all EU28 Member States, except DE and IE for which micro-data are not available. In addition, data by educational level are not reported for DK, EE, EL, FI, LT, MT, RO, SE, SK and UK due to their limited reliability (i.e. small sample size). Figures refer to yearly transition rates (between 2011 and 2012). The sample includes all people aged 15-74 who were temporary employees in 2011 and who were present both in the 2011 and 2012 waves.*

Chart 13: Transition rates from temporary to permanent jobs by age classes, EU (excluding DE and IE), 2012

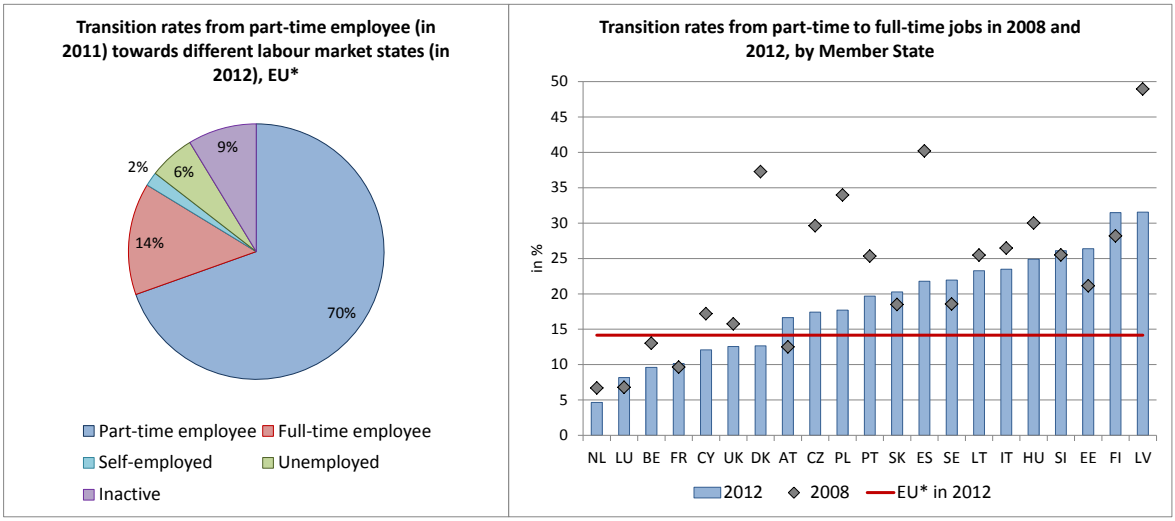


Source: DG EMPL calculations based on EU-SILC longitudinal micro-data
Notes: EU includes all EU28 Member States, except DE and IE for which micro-data are not available. Figures refer to yearly transition rates (between 2011 and 2012). The sample includes all people aged 15-64 who were temporary employees in 2011 and who were present both in the 2011 and 2012 waves.

4.2 Moving from part-time to full-time jobs

70% of part-time employees in the EU maintained their status between 2011 and 2012 (Chart 14, first panel). According to 2011-12 transitions data, around 14% of part-time employees moved to a full-time job, 9% became inactive, 6% unemployed and around 2% started their own business[6]. The share of part-time employees who moved to full-time jobs varies widely across the EU, with Latvia and Finland at the top with a transition rate above 30%, and the Netherlands and Luxembourg at the bottom with less than 10% of part-time workers who moved to full-time jobs (Chart 14, second panel). In addition, transition rates from part-time to full-time jobs fell across many Member States during the crisis.

Chart 14: Transition rates from part-time jobs towards different employment states, EU (excluding DE and IE) and EU Member States



Source: DG EMPL calculations based on EU-SILC longitudinal micro-data

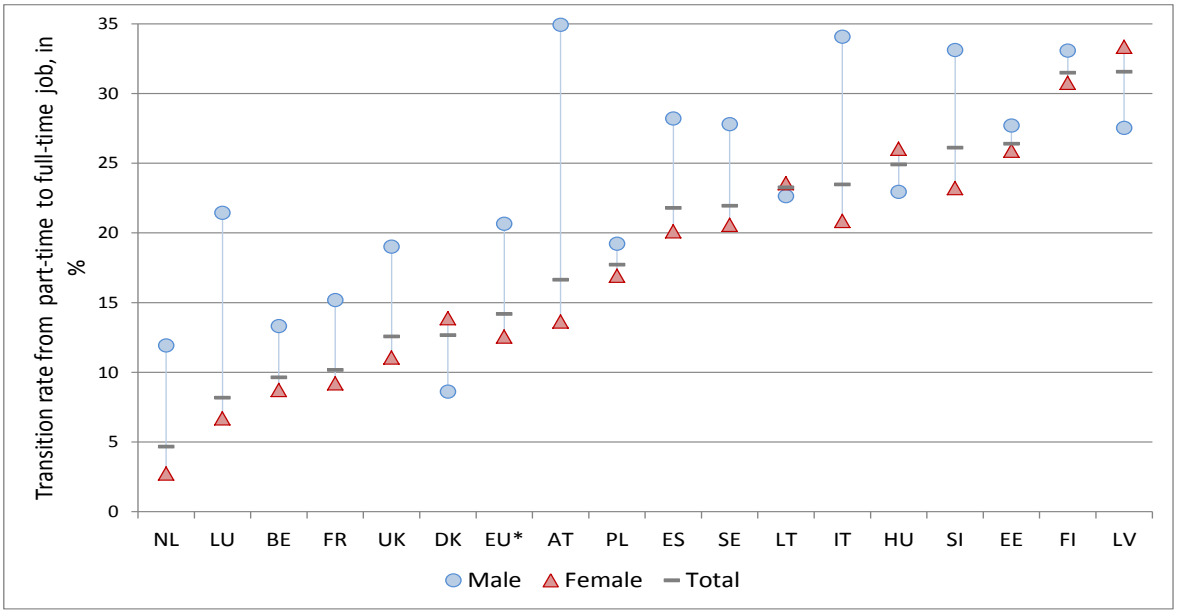
Notes: EU includes all EU28 Member States, except DE and IE for which micro-data are not available. In addition, data by Member State are not reported for BG, EL, HR, MT and RO due their limited reliability (i.e. small sample size). Figures refer to yearly transition rates (between 2011-12 and 2007-08). The sample includes all people aged 15-74 who were part-time employees in 2011 (2007) and who were present both in the 2011 (2007) and 2012 (2008) waves.

There seems to be a negative relationship between the share of part-time employees in total employees and their transition rates to full-time jobs. For example, Latvia and Finland, the two countries with highest transition rates from part-time to full-time, have less than 5% part-time employees. The Netherlands, which is the Member States with the lowest transition from part-time to full-time, also has the highest share of part-time employees (23.3%). However, another important dimension to take into account in this context is the share of involuntary part-time workers, which differs widely across the EU28 and ranges from below 12% in the Netherlands, Slovenia, Belgium and Austria, to above 60% in Greece, Italy, Spain, Cyprus and Bulgaria (according to 2014 LFS data).

[6] For more details on transitions across different employment states including working time arrangements see Table A.2 in Annex.

Men have higher chances of moving from part-time to full-time jobs than women in most Member States for which data are available (Chart 15). Gender differences are particularly high in Austria, followed by Luxembourg, Italy, Slovenia and the Netherlands. By contrast, women are more likely than men to move from part-time to full-time jobs in Latvia, Denmark and Hungary.

Chart 15: Transition rates from part-time to full-time work by gender, EU Member States, 2012

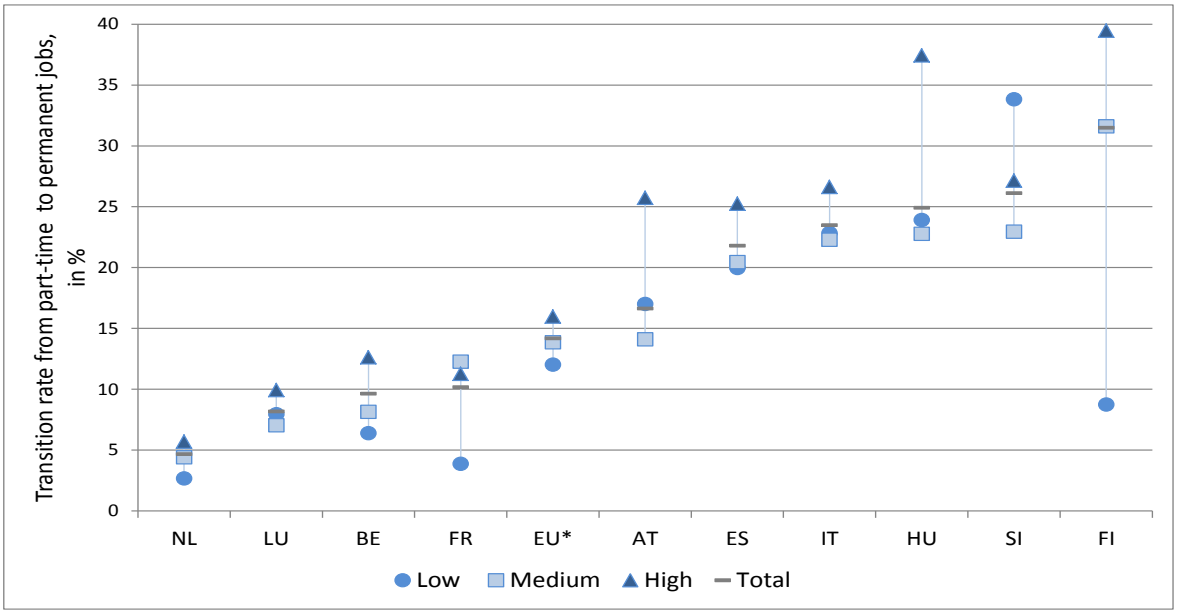


Source: DG EMPL calculations based on EU-SILC longitudinal micro-data
Notes: EU includes EU28 Member States, but DE and IE for which EU-SILC micro-data are not available. In addition, data are not reported for BG, CY, CZ, EL, HR, MT, PT, RO and SK due their limited reliability (i.e. small sample size). Figures refer to yearly transition rates (between 2011 and 2012). The sample includes all people aged 15-74 who were part-time employees in 2011 both in the 2011 and 2012 waves.*

The role of education is very pronounced in Finland, where highly educated part-time employees are more than three times more likely to move to a full-time job than low-educated part-time employees. Educational also makes a big difference in Hungary and Austria. However, for the EU as a whole, transition rates do not differ very much by education level: the difference between the transition to full-time jobs-of low educated and highly educated part-time employees is around 4 pp. (Chart 16).

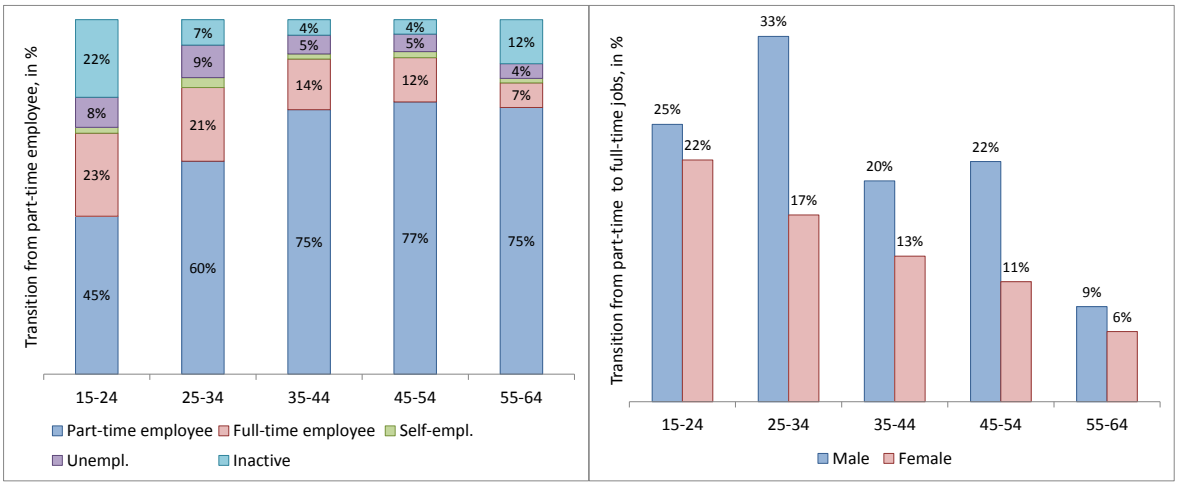
The transition rates from part-time to full-time jobs decrease with age, and for each age group they are higher for men than for women (Chart 17, first and second panel). Men aged 25-34 are the group of people with the highest chance of moving from part-time to full-time jobs. In this age group, the gender gap is also the highest (16 pp).

Chart 16: Transition rates from part-time to full-time work by educational level, EU Member States, 2012



Source: DG EMPL calculations based on EU-SILC longitudinal micro-data
Notes: EU includes EU28 Member States, except DE and IE for which EU-SILC micro-data are not available. In addition, data are not reported for BG, CY, CZ, DK, EE, EL ES, HR, LT, LV, MT, PL, PT, RO, SE, SK and UK due their limited reliability (i.e. small sample size). Figures refer to yearly transition rates (between 2011 and 2012). The sample includes all people aged 15-74 who were part-time employees in 2011 and who were present both in the 2011 and 2012 waves.*

Chart 17: Transition rates from part-time to full-time work by age classes, EU (excluding DE and IE), 2011-12



Source: DG EMPL calculations based on EU-SILC longitudinal micro-data
Notes: EU includes EU Member States, except DE and IE for which EU-SILC micro-data are not available. Figures refer to yearly transition rates (between 2011 and 2012). The sample includes all people aged 15-74 who were part-time employees in 2011 and who were present both in the 2011 and 2012 waves.

5 Conclusions

This Web Note has tried to demonstrate what information the EU-LFS and EU-SILC can yield on the labour market dynamics behind key labour market indicators such as unemployment, employment and inactivity rates, as well as shares of temporary and part-time employees.

The analysis of quarterly flows into and out of employment, unemployment and inactivity shows that labour markets were rather dynamic even during the second dip of the crisis in 2011/2012. Indeed, the quarterly outflows from unemployment into employment outnumbered the inflows, as more people found a job than workers became unemployed. However, unemployment had increased until mid-2013, partially because inactive people increasingly joined the labour market as unemployed.

Up until mid-2013, overall employment decreased, as a result of outflows from employment into unemployment and outflows into inactivity which, together, exceeded all inflows into employment.

Since mid-2013, the economic recovery gained ground and employment started to grow. Flows into employment surpassed flows into unemployment and inactivity. More recently, all types of flows lost a bit of momentum, although unemployment fell again significantly during the second half of 2015.

The evidence based on annual transitions from unemployment into employment (based on annual experimental flows statistics from EU-LFS) confirms the recovery of the EU labour market since mid-2013. The recent drop in unemployment registered in most Member States was linked not only to fewer people becoming unemployed, but also to better chances of finding employment among the unemployed. Education plays an important role in this context as, overall, chances of moving into employment are found to be lower for the low- educated unemployed compared to the medium and especially highly educated unemployed. Long-term unemployment is particularly the scourge of the low-skilled. Nevertheless, the chances of moving to employment for the low-educated unemployed have recently improved.

Finally, EU-SILC provides valuable empirical evidence on transitions from temporary to permanent contracts and from part-time to full-time jobs. While the use of temporary contracts increased in most Member States between 2008 and 2013, the transition rate towards permanent contracts deteriorated, and at the same time more temporary workers lost their job. Low transitions from temporary to permanent jobs and high transitions to unemployment suggest that temporary jobs are career "dead ends" for many rather than "stepping stones". This is more clearly the case for some EU Member States than for others. Young women in temporary jobs find it particularly hard to move into a permanent one.

Transitions from part-time to full-time jobs also deteriorated during the crisis. However, in the case of part-time jobs, it is important to distinguish between voluntary and involuntary part-time working, and the good news is that the chances of moving from part-time to full-time jobs are particularly high in those countries with a considerable share of involuntary part-time employees. Transitions into full-time jobs become less frequent in older age groups, and they are also less likely for women.

This Web Note illustrates the rich potentials of transition analysis. Further work could be undertaken to explore for example the drivers of flows between inactivity and unemployment in particular, a flow that has been the major contributor to the overall net increase in unemployment over recent years. In addition, it would be interesting to analyse how transitions towards better jobs with higher work intensity (e.g. from temporary to permanent contracts and from part-time to full–time employment) can contribute to reducing poverty and income inequality.

6 Annex: Transition matrices

Table A.1: Yearly transition matrix for the EU (excluding Germany and Ireland) by different employment states including contractual arrangements, 2012

Employment states in 2011	Employment states in 2012						Distribution in 2012
	Permanent employee	Temporary employee	Self-employed	Unemployed	Further education	Inactive	
Permanent employee	90.5	1.8	1.2	2.8	0.4	3.3	38.4
Temporary employee	21.5	56.3	1.8	14.7	2.0	3.7	5.7
Self-employed	4.7	1.6	86.1	2.3	0.4	4.9	9.6
Unemployed	8.9	11.1	3.7	61.1	2.4	12.8	8.4
Further education	5.2	5.0	0.9	7.6	78.6	2.8	7.4
Inactive	2.0	0.9	1.2	2.8	0.5	92.6	30.6
Distribution in 2011	38.5	5.9	9.6	7.8	8.7	29.5	100.0

Source: DG EMPL calculations based on EU-SILC longitudinal micro-data.
Notes: The EU average includes all EU28 Member States, except DE and IE for which micro-data are not available. Figures refer to yearly transition rates (between 2011 and 2012). The sample includes all people aged 15-74 who were present both in the 2011 and 2012 waves.

Table A.2: Yearly transition matrix for the EU (excluding Germany and Ireland) by different employment states including working time arrangements, 2012

Employment states in 2011	Employment states in 2012						Distribution in 2012
	Part-time employee	Full-time employee	Self-employed	Unemployed	Further education	Inactive	
Part-time employee	69.6	14.2	1.8	5.8	2.1	6.6	7.6
Full-time employee	3.2	88.4	1.3	4.0	0.4	2.8	38.1
Self-employed	1.4	5.4	85.5	2.3	0.4	4.9	9.3
Unemployed	5.0	16.2	3.6	60.2	2.4	12.6	8.2
Further education	3.7	7.5	0.9	7.5	77.6	2.8	7.2
Inactive	1.4	1.8	1.2	2.8	0.5	92.3	29.7
Distribution in 2011	7.3	38.7	9.4	7.6	8.4	28.7	100.0

Source: DG EMPL calculations based on EU-SILC longitudinal micro-data.
Notes: The EU average includes all EU28 Member States, except DE and IE for which micro-data are not available. Figures refer to yearly transition rates (between 2011 and 2012). The sample includes all people aged 15-74 who were present both in the 2011 and 2012 waves.

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