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LABOUR MARKET RESPONSE TO ECONOMIC CRISIS IN CENTRAL EUROPE: IS THERE ROOM FOR COMMON POLICY APPROACH?

Vladislav Flek,
Metropolitan University Prague, Centre for European Economic and Social Studies (CEESS), Prague, Czech Republic, E-mail: vladislav.flek@mup.cz

Martin Hála,
Metropolitan University Prague, Department of International Trade, Prague, Czech Republic, E-mail: martin.hala@mup.cz

Martina Mysíková,
Metropolitan University Prague, Centre for European Economic and Social Studies (CEESS), Prague, Czech Republic, E-mail: martina.mysikova@mup.cz

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ABSTRACT. Our analysis confirms a lower degree of fluidity on Polish/Czech labour markets compared to Austria. In particular, we find evidence on higher employment rigidity and on lower employability of unemployed in Poland and Czech Republic. The major employment policy challenge faced by Poland and the Czech Republic is actually embodied in much lower job finding prospects of both prime-age and young unemployed in comparison with Austria. In addition, Austrian school-leavers, university graduates or those re-entering the labour market after parental leave are much more likely to find a job than young labour market entrants in the two remaining countries. Finally, Austrian labour market appears to be most flexible also when comparing the contributions of particular gross flows to unemployment rate dynamics.

JEL Classification: E24, J64

Keywords: Austria, Czech Republic, EU-SILC, gross labour market flows, longitudinal data, Poland, transitional probability, unemployment.

Introduction

The labour market's ability to function as macroeconomic equilibrating channel is equally crucial for Eurozone members and countries which attempt to join the monetary union. In this article we address the ways in which central European labour markets have responded to Great Recession. More specifically, we explore the flow approach to identify the presence of common/distinctive features of labour market adjustments in three countries: Austria, Czech Republic and Poland, each of them being an interesting topic of special research (see e.g. Strielkowski and Hněvkovský, 2013). Special emphasis is on comparisons between the dynamics of the youth and prime-age labour markets, since youth unemployment appears to represent the major future labour market policy challenge (ILO, 2013). The proposed analysis is based on EU-SILC longitudinal data for the period 2008–2011. Austria serves a reference, low unemployment country. The main aim is to detect the departure (and

the corresponding policy challenges) of the remaining countries from the patterns of labour market dynamics and adjustment paths that are typical for Austria.

We look into the *gross labour market flows* and *flow transition rates* (also dented as *transition probabilities*) of shifting between the three labour market states represented by employment, unemployment, and inactivity (Abowd & Zellner, 1985; Blanchard & Diamond, 1990; Gomes, 2009; Silverstone & Bell, 2010; Elsby *et al*., 2011; ECB, 2012; Flek & Mysíková, 2013). Gross flows represent the movements of individuals between the labour market states in absolute numbers and constitute a proxy for assessing the labour market fluidity at *aggregate* level. Moreover, our analysis of gross labour market flows allows us to establish those that are crucial, comparable in size, or of minor importance for the entire labour market dynamics.

Flow transition rates are treated as a first-order Markov process, where the transitional probability of moving from previous to current labour market status depends exclusively on the individual's previous status. This involves the rates at which a worker is exposed to a risk of job loss, of finding a job, of moving in and out of inactivity etc. The analysis of flow transition rates is of potential policy relevance as it clearly indicates the gaps between labour market prospects of *individuals* across countries, time and age categories. This simultaneously provides us with the specific targets and benchmarks for policies aimed at lowering those gaps.

Another analytical possibility offered by a flow approach is to demonstrate how do movements of workers in and out of unemployment account for changes in unemployment rates (Dixon *et al.*, 2011). Which gross flows, and to which extent, are behind the observed unemployment rate increases? Is the role of the respective gross flows comparable across countries, time and age categories? This is again of potential policy relevance since increasing unemployment can be a result of different relative contributions of particular gross flows. Policy efforts that focussed, e.g., on encouraging outflows from unemployment may not be as relevant in an economy in which increases in unemployment were driven by outflows from employment (Elsby *et al*., 2012).

The rest of the present paper is organised as follows: Section 1 is devoted to explaining our methodology of calculating the gross flows and flow transition rates, along with a "flow decomposition" of unemployment rate dynamics. Section 2 proposes the way of conducting international flow analyses with the help of the recent longitudinal microeconomic data that are contained in statistical compendium provided by the Statistics on Income and Living Conditions (EU-SILC). These data are then used for analysis in the sections to follow: Section 3 focuses on cross-country comparisons of gross labour market flows and flow transition rates, while Section 4 documents how the gross flows shape the evolution of unemployment rates. Last section concludes.

1. The Methodology

Gross labour market flows are defined as (i) the number of individuals entering the labour market from previous inactivity (I_{t-1}) and moving either into employment (E_t) or unemployment (U_t); (ii) the number of those who leave employment (E_{t-1}) and move either into unemployment (U_t) or inactivity (I_t); and, finally (iii) the number of individuals exiting unemployment (U_{t-1}) and moving either into employment (E_t) or inactivity (I_t). Thus there are six possible gross labour market flows: ($E_{t-1} \rightarrow U_t$); ($E_{t-1} \rightarrow I_t$); ($U_{t-1} \rightarrow E_t$); ($U_{t-1} \rightarrow I_t$); ($I_{t-1} \rightarrow E_t$); ($I_{t-1} \rightarrow U_t$). In turn, the number of those who maintain their previous labour market status can be expressed as ($E_{t-1} \rightarrow E_t$) ; ($U_{t-1} \rightarrow U_t$); ($I_{t-1} \rightarrow I_t$).

Our weighted matched samples involve 23 monthly observations of gross labour market flows for the periods 2008 – 2009 and 2010 – 2011 (see the next section for details).

Based on these observations the average monthly numbers of individuals involved in each of the six gross flows or remaining in the previous labour market status are calculated in *Tables 1a* and *1b* in Section 2 for each country, period and age group of interest. In *Figure 1* in Section 3, the value of $UE = (U_{t-1} \rightarrow E_t)/(E_{t-1}+U_{t-1}+ I_{t-1})$ indicates in per cent the proportion of individuals involved, on average, every month in a gross flow from unemployment to employment, and so on for *EU*, *EI*… These results are again based on data from *Tables 1a* and *1b* in Section 2.

To derive the average month-to-month transition probabilities (flow transition rates), we divide in *Tables 1a* and *1b* in Section 2 the number of people involved in a given average monthly gross flow by the corresponding row total. For instance, the following formula (1) expresses in per cent the individual's probability to exit unemployment and become employed:

$$\lambda^{UE} = \frac{(U_{t-1} \rightarrow E_t)}{(U_{t-1} \rightarrow E_t) + (U_{t-1} \rightarrow U_t) + (U_{t-1} \rightarrow I_t)} = \frac{(U_{t-1} \rightarrow E_t)}{U_{t-1}}, \quad (1)$$

All possible flow transition rates form a 3x3 matrix, where the diagonal terms represent unchanged labour market states. Each row also involves two off-diagonal terms indicating the transitional probabilities. In a fully tight labour market, the off-diagonal terms equal zero. Conversely, in a totally fluid labour market with 100 per cent transitions of individuals between the states, the diagonal terms equal zero. Flow transition rates for countries, periods and age groups of interest are expressed in *Figure 2* in Section 3.

It is crucial for our analysis to link the gross flows with the dynamics of the unemployment rate. As a first step, we express changes in the number of unemployed (ΔU) as a balance of gross flows "in" and "out" of unemployment:

$$\Delta U = \left[\underbrace{(E_{t-1} \rightarrow U_t) + (I_{t-1} \rightarrow U_t)}_{\text{IN}}\right] - \left[\underbrace{(U_{t-1} \rightarrow I_t) + (U_{t-1} \rightarrow E_t)}_{\text{OUT}}\right], \quad (2)$$

Furthermore, a change between unemployment rates recorded at times t and $(t-1)$ can be expressed as:

$$\Delta\left(\frac{U}{LF}\right) = \frac{U_t}{LF_t} - \frac{U_{t-1}}{LF_{t-1}}, \quad (3)$$

where the labour force (LF) consists of the employed (E) and the unemployed (U). Since it is evident that $U_t = \Delta U + U_{t-1} = (IN - OUT) + U_{t-1}$, a change in the unemployment rate can be expressed as follows:

$$\Delta\left(\frac{U}{LF}\right) = \frac{(IN-OUT)}{LF_t} + \frac{U_{t-1}}{LF_t} - \frac{U_{t-1}}{LF_{t-1}} = \frac{(IN-OUT)}{LF_t} + U_{t-1}\left(\frac{1}{LF_t} - \frac{1}{LF_{t-1}}\right), \quad (4)$$

Formula (4) defines in percentage points which fraction of changes in the unemployment rate is due to net change in unemployment ($IN - OUT$) and which is due to the changes in labour force (LF). The term ($IN - OUT$) can further be decomposed to separate the *contributions* of gross flows "in" and "out" of unemployment to changes in the unemployment rate:

$$\Delta\left(\frac{U}{LF}\right) = \underbrace{\frac{(E_{t-1} \rightarrow U_t) + (I_{t-1} \rightarrow U_t)}{LF_t}}_{IN} - \underbrace{\frac{(U_{t-1} \rightarrow E_t) + (U_{t-1} \rightarrow I_t)}{LF_t}}_{OUT} + \underbrace{U_{t-1}\left(\frac{1}{LF_t} - \frac{1}{LF_{t-1}}\right)}_{LF}, \qquad (5)$$

If $(IN - OUT) = 0$, the number of unemployed remains constant over time. Then the observed changes in unemployment rate are to be attributed solely to a changing labour force. A negative sign of the third term on the RHS of formula (5) thus indicates a decline in percentage points in the unemployment rate due to increasing labour force. Contribution of changes in labour force to changes in the unemployment rate can also be decomposed, to separate contributions of the respective gross flows that shape the evolution of the labour force (for detail, see Dixon *et al*., 2011). For the sake of simplicity we limit our analysis to decompositions expressed in formula (5).

Conversely, under constant labour force, unemployment rate changes would be driven solely by net changes in unemployment. *Table 2* and *Figure 3* in Section 4 indicate the contributions of the above defined components to unemployment rate dynamics for countries, periods and age groups of our interest.

2. The Data

In this paper, we work with the Statistics on Income and Living Conditions (also known as the EU-SILC) data. The data represents an annual survey that retrospectively reports monthly economic activity in the previous calendar year. The definition of employment in EU-SILC embraces both regular employees and self-employed individuals (including family workers) engaged in either part-time or full-time jobs. According to EU-SILC's methodology, unemployment is self-defined based on the person's individual perception. The inactivity group consists of students, further trainees, individuals doing unpaid work experience, retirees and early retirees, permanently disabled, military personnel, people conducting domestic work and care responsibilities, as well as other inactive persons.

The EU-SILC survey is designed and harmonized by Eurostat and its longitudinal version is constructed in a form of a four-year rotational panel. The survey has the longitudinal character which is extremely helpful in identifying each and every respondent's status on the labour market as well as its alternations on a monthly basis. In addition, information on labour market status reported on the monthly basis might minimize the time aggregation bias which is inherently present in longitudinal analyses, e.g. European Union Labour Force Survey (EU-LFS) which is distinguished by the quarterly structure of the data.

The use of longitudinal EU-SILC appears to be the appropriate way of conducting our analysis, despite its potential flaws, retrospective nature of reported economic activity and its self-declared nature among other things. It also has to be noted that the survey structure does not enable to analyse direct job-to-job flows of respondents.

The obvious solution would be to employ the most recent full four-year panel of EU-SILC 2012 that would enable us to fully exploit the longitudinal element of EU-SILC. For the time period between 1/2008 and 12/2011, it yields a chain of 47 monthly individual

comparisons of the previous and current labour market statuses. Nevertheless, we are also interested in a group of young individuals (especially those aged 16-34) at the beginning of the analysed time interval, which excludes the possibility of working with the full four-year panel data due to the relatively small number of respondents.

In order to achieve our objectives, we had to extract two two-year periods from EU-SILC, namely EU-SILC UDB 2010, version 5 of March 2014, which covers monthly economic activity for 1/2008–12/2009, and EU-SILC UDB 2012, version 1 of August 2014 which covers the period 1/2010–12/2011. Both subsamples yield chains of 23 monthly comparisons of individual labour market states and contain considerably more respondents than the four-year panel.

Additionally, we analyse the prime-age population aged 35-54 at the beginning of both periods in question as a second group. For further analysis we selected the respondents of both age categories who fully participated in these two-year surveys. Hence, our subsamples for 2008-2009 and 2010-2011 can be regarded as pure two-year panels in which all the reported month-to-month individual labour market statuses are matched. Following this, we apply the longitudinal weights constructed by Eurostat specifically for these two-year subsamples and representing the standard means of minimising the possible attrition or non-response biases.

We deal with an age band of young people aged between 16 and 34 instead of a more commonly used band 16-24. For various reasons we believe that this choice is justified. One can argue that the later band cannot express the labour market dynamics of young people in full. The reason is that the fraction of young people under 25 who participate actively in labour market transitions is relatively small and even diminishing over time. As a result, their actual labour market histories can be depicted only partially. Tendencies such as prolonged time spent in education or postponed maternity decisions can be mentioned as supporting arguments.

The sizes and structures of our weighted matched subsamples are revealed in the following *Tables 1a-1b*. EU-SILC data organised in the already described way are used for analysis in Sections 3 and 4.

Table 1a. Gross labour market flows (columns 2-4) and total matched labour stocks (Σ) for period 2008-2009 (in absolute numbers; monthly averages)

Status in previous month	Status in current month			
1	2	3	4	5
Austria prime-age (35–54)	E_t	U_t	I_t	Σ_{t-1}
E_{t-1}	2110118	16735	7763	2134615
U_{t-1}	15332	143456	2096	160884
I_{t-1}	6477	1258	274099	281834
Σ_t	2131927	161449	283958	2577334
Austria youth (16–34)				
E_{t-1}	1113228	14802	14097	1142127
U_{t-1}	15874	182801	4476	203151
I_{t-1}	15519	3361	523262	542142
Σ_t	1144620	200964	541835	1887419
Czech Republic prime-age (35–54)				
E_{t-1}	2359822	9205	2397	2371424
U_{t-1}	7804	163233	594	171631
I_{t-1}	2028	1208	261287	264523
Σ_t	2369654	173646	264278	2807578

1	2	3	4	5
Czech Republic youth (16–34)				
E_{t-1}	1418212	8254	6802	1433268
U_{t-1}	8911	142730	1226	152868
I_{t-1}	9576	5091	1035297	1049964
Σ_t	1436699	156075	1043325	2636099
Poland prime-age (35–54)				
E_{t-1}	7577273	31993	22006	7631272
U_{t-1}	29439	516852	4016	550307
I_{t-1}	20655	6861	1699362	1726878
Σ_t	7627367	555707	1725383	9908457
Poland youth (16–34)				
E_{t-1}	4935255	36381	26018	4997654
U_{t-1}	35099	503276	3759	542135
I_{t-1}	45197	16613	3119891	3181701
Σ_t	5015552	556269	3149668	8721490

Source: EU-SILC UDB 2010, version 5 of March 2014. Authors' calculations.

Table 1b. Gross labour market flows (columns 2-4) and total matched labour stocks (Σ) for period 2010-2011 (in absolute numbers; monthly averages)

Status in previous month	Status in current month			
1	2	3	4	5
Austria prime-age (35–54)	E_t	U_t	I_t	Σ_{t-1}
E_{t-1}	2097269	12519	7164	2116951
U_{t-1}	13863	131517	1959	147339
I_{t-1}	6166	1421	268417	276003
Σ_t	2117298	145456	277539	2540293
Austria youth (16–34)				
E_{t-1}	1150854	12841	14950	1178645
U_{t-1}	15453	125617	3804	144875
I_{t-1}	16378	3056	576008	595442
Σ_t	1182686	141514	594762	1918962
Czech Republic prime-age (35–54)				
E_{t-1}	2502385	7813	2475	2512672
U_{t-1}	10380	182029	845	193254
I_{t-1}	2728	822	228837	232386
Σ_t	2515493	190663	232157	2938312
Czech Republic youth (16–34)				
E_{t-1}	1300858	6969	5378	1313204
U_{t-1}	12181	162254	1518	175953
I_{t-1}	8399	6802	1042296	1057497
Σ_t	1321438	176025	1049191	2546654
Poland prime-age (35–54)				
E_{t-1}	7374420	38344	14743	7427507
U_{t-1}	36986	718318	4465	759769
I_{t-1}	13599	4999	1360428	1379026
Σ_t	7425006	761661	1379635	9566302
Poland youth (16–34)				
E_{t-1}	4840897	39818	21282	4901998
U_{t-1}	49555	740132	5609	795296

1	2	3	4	5
	32649	17346	2906163	2956158
	4923102	797296	2933053	8653451

Source: EU-SILC UDB 2012, version 1 of August 2014. Authors' calculations.

3. Gross Flows and Transition Rates: A Comparative Perspective

The following *Figure 1* signals quite convincingly a lower degree of fluidity prevailing on Polish/Czech labour markets compared to Austria. Indeed, irrespective of the period and age group analysed, the share of individuals involved in gross labour market flows in these two countries is persistently much lower than in Austria. This suggests that exceptionally good labour market performance in Austria is consistent with a relatively high labour market fluidity and *vice versa* in cases of the two remaining countries.

Figure 1 also demonstrates striking differences in the relative involvement of young and prime-age individuals in gross labour market flows. It can be seen that young workers are more frequently involved in these flows than their prime-age counterparts. This result is consistent across all analysed countries and periods and corroborates the results obtained by Elsby *et al*. (2011) in the case of the UK who also find that young people "churn" trough the labour markets relatively more frequently.

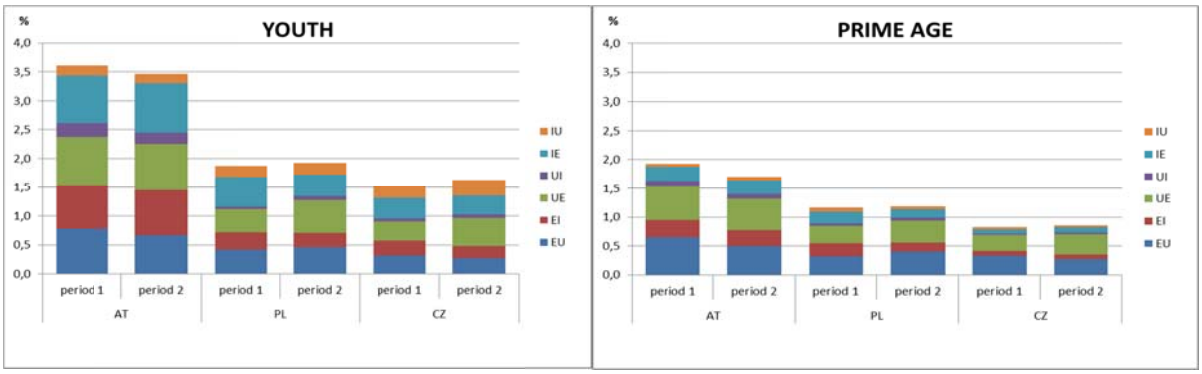


Figure 1. Youth and prime-age labour market fluidity (gross labour market flows as percentages of total matched labour market stocks)
Source: EU-SILC UDB 2010, version 5 of March 2014; EU-SILC UDB 2012, version 1 of August 2014. Authors' calculations.

Although the above results reveal some country-specific and age-based features of labour market dynamics, they alone cannot provide explicit answers about the key drivers of unemployment evolution. The following section clarifies how gross labour market flows shape the evolution of unemployment, while the rest of the present section deals with labour market dynamics from an individual's perspective.

The following *Figure 2* summarises the results for the flow transition rates based on data from Tables 1a and 1b. Perhaps surprisingly, for both periods and age groups, *Figure 2* manifests that an individual's exposure to a risk of job loss (*p:EU*) is the highest in Austria. Thus one can argue that both the Czech Republic and Poland perform better in this particular respect. However, it is more likely that these "good" results actually signal the presence of higher employment rigidity and possibly stronger employment protection of Czech and Polish workers. This in not necessarily due to different labour legislation, relatively higher statutory

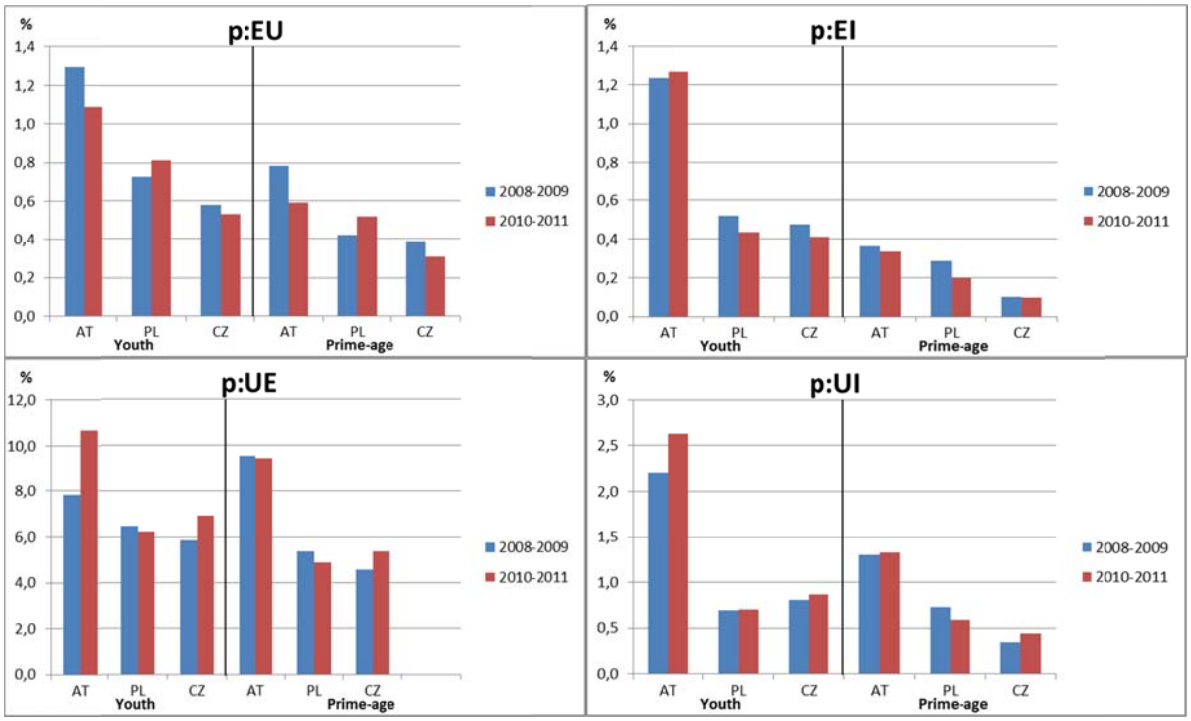
redundancy payments or other costs linked with layoffs. Informal power of insiders may play an equally important role.

Stronger employment rigidity is additionally confirmed in *Figure 2* by relatively much lower employability of Czech and Polish unemployed (*p:UE*) compared to Austria. In other words, Austrian unemployed of both age categories are much more likely to find a job than their Czech or Polish counterparts.

Another exceptionality of Austria is apparent when looking at individual prospects of transitioning from inactivity (*p:IE*; *p:IU*), especially from inactivity to jobs (*p:IE*) in case of Austrian youth. Austrian school-leavers, university graduates or those returning from maternity leave are much more likely to find a job than the Czech or Polish youth.

The last two flow transition rates (*p:EI*; *p:UI)* concern the probability of moving into inactivity. These inflow rates are again clearly the highest in case of Austrian youth, thus suggesting that young people in Austria are relatively more likely to exit the labour market than in Poland or Czech Republic. This appears to be linked especially with their intentions to upgrade their current education.

Our findings related to comparisons of young and prime-age individuals appear to be in accord with those described by Elsby *et al*. (2011) in the UK. In spite of the different nature of data covering longer periods, Elsby *et al*. (2011) also conclude that young workers are experiencing considerably higher job loss rates (*p:EU*) when compared to older workers. Another similarity with the UK concerns the job finding rates (*p:UE*), which are also typically higher for young unemployed.



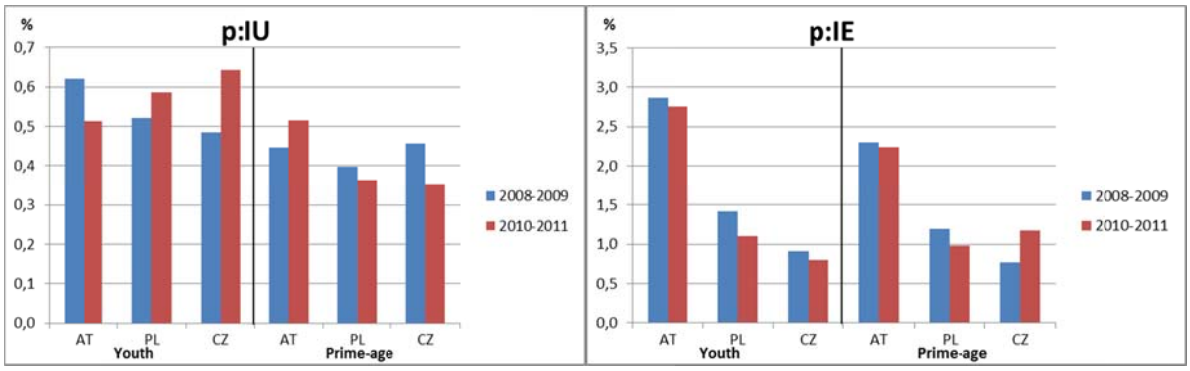


Figure 2. Flow transition rates (in per cent; monthly averages)
Source: EU-SILC UDB 2010, version 5 of March 2014; EU-SILC UDB 2012, version 1 of August 2014. Authors' calculations.

4. Flow Decomposition of Unemployment Rate Dynamics

Our approach does not deal with the *levels* of unemployment rates in countries, periods and age groups analysed. In contrast, it is concentrated on *changes* in unemployment rates and the respective contributions of particular gross labour market flows to these changes. The intention is to detect common trends or country specificities in unemployment rate response to economic crisis.

The following *Figure 3* and *Table 2* confirm exceptionally good unemployment performance of Austria in 2008 – 2011. It is the only country involved in our analysis which almost managed to avoid any negative unemployment consequences of Great Recession. What are the sources of this exceptionality?

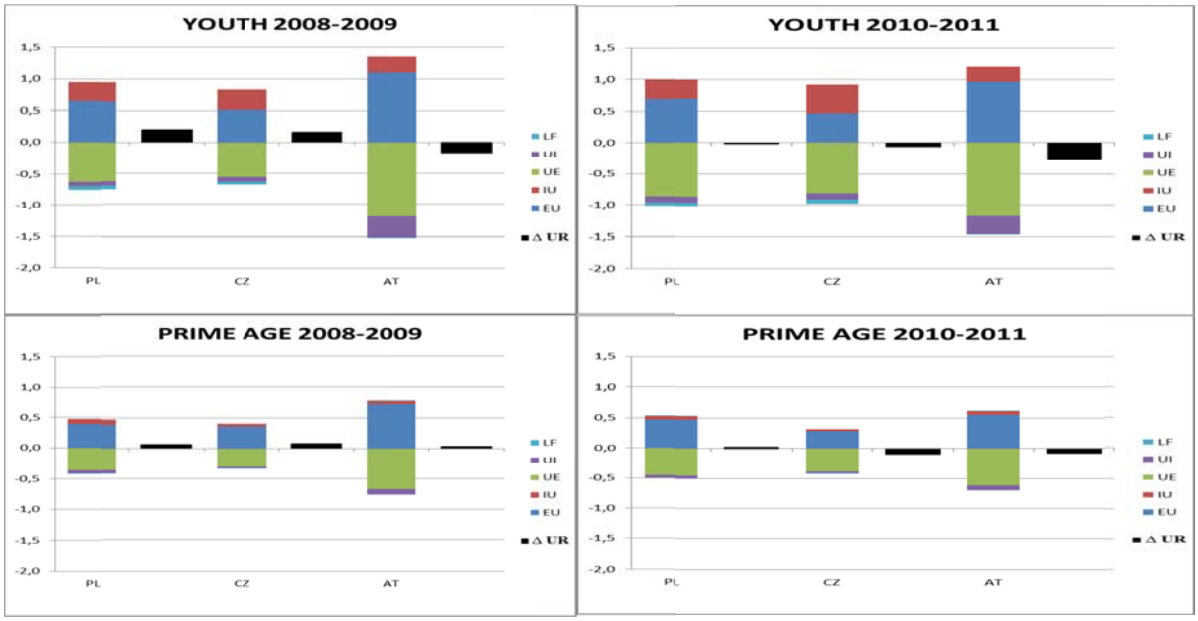


Figure 3. Contributions of gross flows into unemployment (*EU*; *IU*), of gross flows out of unemployment (*UE; UI*), and of changes in labour force (*LF*) to unemployment rate dynamics (ΔUR), in percentage points
Source: EU-SILC UDB 2010, version 5 of March 2014; EU-SILC UDB 2012, version 1 of August 2014. Authors' calculations.

Table 2. Contributions of gross flows "in" (columns 3–5) and "out" (columns 6–8) of unemployment, and of changes in labour force (column 9) to unemployment rate dynamics (column 2), in percentage points

Country/ period	$\Delta\left(\frac{U}{LF}\right)$	Contribution of **IN**	$\frac{(E_{t-1} \rightarrow U_t)}{LF_t}$	$\frac{(I_{t-1} \rightarrow U_t)}{LF_t}$	Contribution of **OUT**	$\frac{(U_{t-1} \rightarrow E_t)}{LF_t}$	$\frac{(U_{t-1} \rightarrow I_t)}{LF_t}$	Contribution of changing **LF**
1	2	3	4	5	6	7	8	9
Austria								
2008–09								
Prime a.	0.0311	0.7845	0.7297	0.0548	-0.7599	-0.6685	-0.0914	0.0065
Youth	-0.1660	1.3498	1.1001	0.2498	-1.5124	-1.1797	-0.3327	-0.0034
2010–11								
Prime a.	-0.0788	0.6160	0.5533	0.0628	-0.6992	-0.6127	-0.0866	0.0044
Youth	-0.2594	1.2005	0.9697	0.2308	-1.4543	-1.1670	-0.2873	-0.0056
Czech								
2008–09								
Prime a.	0.0786	0.4095	0.3619	0.0475	-0.3302	-0.3069	-0.0234	-0.0006
Youth	0.1612	0.8378	0.5182	0.3196	-0.6365	-0.5595	-0.0770	-0.0402
2010–11								
Prime a.	-0.0964	0.3191	0.2887	0.0304	-0.4148	-0.3836	-0.0312	-0.0006
Youth	-0.0608	0.9196	0.4654	0.4542	-0.9148	-0.8135	-0.1014	-0.0655
Poland								
2008–09								
Prime a.	0.0648	0.4748	0.3910	0.0838	-0.4088	-0.3597	-0.0491	-0.0012
Youth	0.1974	0.9511	0.6529	0.2982	-0.6974	-0.6299	-0.0675	-0.0563
2010–11								
Prime a.	0.0238	0.5294	0.4684	0.0611	-0.5063	-0.4518	-0.0545	0.0007
Youth	-0.0214	0.9993	0.6961	0.3032	-0.9643	-0.8663	-0.0980	-0.0564

Source: EU-SILC UDB 2010, version 5 of March 2014; EU-SILC UDB 2012, version 1 of August 2014. Authors' calculations.

First, let us concentrate on the "ins" of unemployment. In this respect, the first striking difference of Austria concerns the contribution of gross flows into unemployment from employment ($EU;\ E_{t-1} \rightarrow U_t$) to *increases* in unemployment rates.

In Austria, this contribution is actually the highest, a rather surprising finding which applies to all sub-periods and age groups analysed. In other words, Austria is the country where the inflows of workers who lost their jobs account for much higher increases in unemployment rates than in the remaining countries.

This simultaneously means that the existing jobs are actually much less secure in Austria, and employees in Poland and the Czech Republic appear to be relatively more protected against layoffs – not necessarily in legal terms, but in a light of the observed contributions of inflows from employment to unemployment to unemployment rate dynamics (for detail see *Table 2*).

However, when looking at the "outs" of unemployment in *Table 2* (especially at results for $U_{t-1} \rightarrow E_t/LF_t$) , the contribution of the "outs" to diminishing the (prime-age and youth) unemployment rate is again the highest in Austria. Moreover, the total balance of "ins" and "outs" is favourable for Austrian workers of both age categories in comparison with the remaining countries (when taking into account the changes in labour force, the overall picture does not change dramatically).

These observations are consistent with the findings related to flow transition rates analysed earlier in this paper. But, unlikely to analysing the individual labour market

prospects, now we can relate the different labour market dynamics directly to the evolution of national unemployment rates.

Conclusions

In this article we exploit the longitudinal monthly data derived from EU-SILC 2010 and EU-SILC 2012 to demonstrate the response of central European labour markets to economic crisis during the period 2008–2011. Our methodology is based on a flow approach towards labour market dynamics and consists of three major elements, namely of the analysis of (i) gross labour market flows; (ii) flow transition rates (transition probabilities); and, finally (iii) a flow decomposition of unemployment rate evolutions. Both prime-age and young workers are subject to analysis.

The analysis of gross labour market flows confirms a much lower degree of fluidity prevailing on Polish/Czech labour markets in comparison with Austria. This finding holds across the age categories and sub-periods analysed in the present paper. When analysing the relative involvement of individuals in gross labour market flows, we also find that young workers "churn" through the labour markets more frequently than their prime-age counterparts. This is in line with findings established in less recent literature for the UK (Elsby *et al*., 2011).

The results of analysing flow transition rates (transition probabilities) of moving from one labour market status to another confirm the exceptionality of Austria and quantify the departure of the Czech Republic and Poland from patterns of labour market dynamics that is typical for Austria.

In this sense our results indicate that the major employment policy challenge faced by Poland and the Czech Republic is embodied in much lower job finding prospects (individual transition probabilities of moving from unemployment to employment) of both prime-age and young unemployed in comparison with Austria. This might result in migration patterns typical for both countries (see e.g. Kowalska and Strielkowski, 2013; or Strielkowski, 2013). Another policy message stemming from our results is that Austrian school-leavers, university graduates (or those returning from maternity leave) are much more likely to find a job than young labour market entrants in the two remaining countries. Thus, the policies aimed at easing the school-to-work or maternity-to-work transitions in the Czech Republic and Poland have to intensify their efforts aimed at lowering that gap.

Finally, we link the gross flows directly with unemployment rate dynamics in the three countries analysed. We find that Austria is the country where the inflows of workers who lost their jobs account for much higher increases in unemployment rates than in the remaining countries. However, this tendency is more than compensated by exceptionally high contribution of gross flows from unemployment to employment to decreases in the unemployment rate in Austria.

For both the Czech Republic and Poland our results suggest form various viewpoints that the policy emphasis should be aimed primarily at encouraging outflows of people from unemployment to employment rather than at protecting the existing jobs. Indeed, low employability of those currently unemployed appears to be the main source of labour market tightness of Czech and Polish labour markets.

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