Decomposition of trends in youth unemployment – the role of job accessions and separations in countries with different employment protection regimes

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ABSTRACT

We examine the drivers of youth unemployment in Poland and Spain, countries where youth have a marginalised labour market position. We decompose the trends in unemployment rates in 1990-2011. We disentangle the role of prolonging job search and the impact of dismissals. The contribution of these two factors to the changes in unemployment rates is compared between youth and the reference group of prime-age workers.

We show that in both countries, youth had actually higher chances of finding jobs than the prime-age workers during last two decades. However, the probability of job separation among youth was persistently higher. Moreover, the youth job separation risk reacted to recessions much stronger than the prime-age group risk. In Poland the disparity between the impact of job dismissals on changes in unemployment rates among young and prime-age men is relatively lower than in Spain, which could be ascribed to countries' differential employment protection regimes.

JEL codes: J21, J42, J63

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1. INTRODUCTION

In most European countries, it is particularly the inexperienced youth whose risk of unemployment rises during economic downturns (Bell and Blanchflower, 2011; Scarpetta et al., 2010; Verick, 2009; Rodriguez-Palenzuela and Jimeno-Serrano, 2002). There are two potential mechanisms leading to this youth disadvantage: (1) the chances of finding a job among youth decline more than prime-age workers' job accession rates (2) the youth job separation rates increase more than the risk of dismissals in the prime-age group. Our key research question addressed in this paper pertains to the contribution of "ins" and "outs" from unemployment to the overall variation in the unemployment rates of young people and prime-age workers. We compare the impact of declining chances of finding a job and increasing probability of dismissal on young and prime age workers in two countries with different employment protection regimes: Poland and Spain. We expand the existing research twofold. First of all, we look at age heterogeneity in the hazard rates of job accessions and separations, which are estimated based on high quality, large representative and comparable data. Secondly, we place our study in a cross country perspective, comparing two European labour markets, which provides an opportunity to contribute to the discussion of the potential links between employment protection legislation and the impact of hirings and firings on unemployment.

The research on the role of job accessions and separations for changes of aggregate unemployment has so far largely ignored the diversity of workers. The heterogeneity of workers in terms of age and experience seems particularly worth considering because young workers may be much more disadvantaged during recessions than the prime-age group for a number of reasons. First of all, since youth are overrepresented among job searchers, a decline in job creation hits them most. At the same time youth may face higher risk of job separation than the prime age group because the firing costs, which usually increase with age and experience, are lower for younger workers. These considerations call for a shift in the focus of empirical research from analysis of aggregate labour market flows to the more detailed analysis of unemployment dynamics of distinct labour market groups (Smith, 2011, Hoynes, et al. 2012).

So far the empirical studies on the gross labour market flows have focused on single countries. Most research has been carried out for the US (Blanchard and Diamond, 1990; Shimer, 2012; Fujita and Ramey, 2009), and only recently a number of studies have been made for other developed countries (Pissarides and Petrongolo, 2008; Smith, 2011; Elsby et al., 2012). In our empirical analysis, we look at two European labour markets: Poland and Spain. These countries stand out with high proportions of workers with fixed-term contracts in the youngest age group (European Commission, 2010). These fixed-term contracts have been often seen as a source of high labour turnover and an important reason for young people's disadvantage in both countries (Guell and Petrongolo 2003, Dolado et al., 2002; Bentolila et al., 2008, De la Rica, 2004). However, Polish labour law legislation is less rigid, meaning that it does not imply strict protection from dismissals among labour market "insiders", as in the case of Spain. We investigate if the differences in the employment protection regimes may result in diverging age-specific dynamics of transitions into and out of employment among Polish and Spanish workers.

Our results are important both from academic and policy-relevance point of view. The evidence that we provide confirms that there is youth disadvantage on the labour market, which appears especially strong during economic crisis. However, we move beyond what has been already shown in the

empirical studies and we identify the sources of this disadvantage. According to common knowledge, young people become more likely to be unemployed during crises primarily because the duration of their job search increases, and prolonged school-to-work transition results in human capital deterioration or "scarring effects" (Gregg 2001, Narendranathan & Elias 1993, Arulampalam, Booth & Taylor 2000). Therefore, most studies have so far focused on disentangling the factors beyond prolonged job search (see e.g. Cuesta 2005, Sciulli and Signorelli, 2011; Quintini et al. 2007). However, according to our findings, young people are not at all worse-off than the prime age group when it comes to searching for jobs. In fact, the intensity of finding jobs in the group of young people is higher than in the prime age group. Importantly, a large proportion of the variation in the youth unemployment rate is generated by increased lay-offs that are more likely to occur among young people than among prime age workers. Moreover, while the job separation rates among prime aged workers do not react strongly to the worsening economic conditions, the converse can be observed among youth. This appears to be an important reason why youth turns out to be much more sensitive to economic crises. Our findings are very important for further research on youth labour market integration, which should shift the focus from looking solely at the transitions from school to work, to taking a broader view on the determinants of early career dynamics. Specifically, more effort should be made to identify the factors that raise the risk of losing a job among young people. Finally, we argue the need to explore the policy solutions that address the lack of employment stability among young people. Clearly, the policies promoting youth labour market integration should not only aim at improving chances of finding jobs, but also enhance opportunities for accumulation of working experience.

The comparison of our two countries – Poland and Spain – allows going more in depth into finding the causes of the age divide in employment instability and investigating the potential role of labour market protection regimes. We show that the labour law that allows an easy use of fixed term contracts may operate in a completely different way on two labour markets, depending on the strictness of the employment protection regulations. According to our results, the difference in the magnitude of the reaction of job separation risk to recessions between youth and prime-age group is much more pronounced in the case of the Spanish male workers than among Polish workers. Hence, in Spain, young male workers seem to be some kind of a "buffer stock" of labour force which is first to be fired whenever a recession occurs, compared to their prime age colleagues. This may be related to the specific regime of employment protection legislation in Spain, which protects prime age workers and channels the risk of job separations to labour market entrants. Even though both countries share a high proportion of workers with fixed-term contracts in the youngest age group, and are viewed to have dualised labour markets, where youth has a marginalised position, they differ when it comes to the age and experience-driven inequality in employment instability. In Poland, arguably due to much more relaxed rules concerning workers' employment protection, the common use of fixed-term contracts is not related to shifting the risk of job loss towards the labour market entrants.

2. LITERATURE REVIEW

There are two important strands of literature on the role of job separations and job accessions for the unemployment patterns on the European labour markets that we combine in this paper. First of all, we build on comparative research on labour market flows in the economies of the developed countries. This literature examines "ins" and "outs" from unemployment in order to identify the main drivers of increases in unemployment rate. A comparative perspective allows ascribing differences in unemployment patterns to the diverse policies implemented in specific countries. Second, we follow and extend the literature on the differential impact of job accessions and job separations for the unemployment rates of young workers.

There is a voluminous literature debating whether the increases in the aggregate unemployment rate are driven mainly by declining job accession rates or by increasing job separation rates. This discussion has developed mainly in the US (Blanchard and Diamond, 1990; Shimer, 2012; Fujita and Ramey, 2009), but later on similar studies emerged also in Western Europe (e.g. Elsby et al., 2012; Petrongolo and Pissarides, 2008; Silva and Vázquez-Grenno, 2011) and in transition countries (Haltiwanger and Vodopivec, 2002; Haltiwanger et al., 2003; Eamets, 2004).

This literature often relates the general level and the contribution of job separation and job accession rates to the employment protection regime. Low level of job flows indicates insufficient flexibility of the labour market and excessive employment protection of workers (Bertola, 1990; Garibaldi, 1998). According to Mortensen and Pissarides (1999) restrictive labour law regulations may reduce most of all job separations, thereby limiting their contribution to the overall changes in the unemployment rate (Pissarides and Petrongolo, 2008).

In general, young workers are exposed to higher risk of unemployment, because on average they accumulated less firm-specific capital. However, this is a universal mechanism which works in every developed country and hence should not lead to diverse unemployment patterns across countries. Still, taking a cross-country comparative perspective, we may observe different rates of job separations and job accession rates among young and prime age workers. The employment protection regimes is considered as one of the factors that shapes these differences (Allard and Lindert, 2006; Autor et al., 2006; Lazear, 1990; Cahuc and Zylberberg, 2004; Kahn, 2007). Specifically, strict labour law regulations reduce job creation thereby depressing the inflow from unemployment into employment. The risk of unemployment is channelled from the group of prime age workers to the demographic groups, who are at the stage of the life course which involves leaving school and entering or re-entering the labour market. Moreover, strict employment protection legislation, and especially the firing costs strongly dependent on tenure, make younger and hence less experienced people relatively more likely to be laid off as compared to the prime-age workers (Feldmann, 2009; OECD, 2008). Some countries have employment protection regimes with introduced "partial deregulation", i.e. with very strict labour law regulations protecting regular workers and very relaxed rules for selected group of workers, such as workers with fixed-term contracts. The partial deregulation introduces an age divide in the employment chances and marginalizes the youngest age group (Barbieri, 2009; Barbieri and Scherer, 2009). The prime age group experiences very limited labour market mobility, whereas the labour market entrants (among whom young people tend to be overrepresented) , are more likely to receive fixed-term contracts from employers, which also imply high risk of lay-offs. These arguments pinpoint the impact of labour legislation on the diverging role of job accessions and job separations for unemployment among young and prime age workers.

Although theoretical literature emphasizes differential magnitude of the effects of job accessions and job separations on the age-specific unemployment rates, the empirical evidence in this regard is rather scarce and comprises of single country studies, while comparative ones are still missing. One of the few studies has been carried out by Blanchard and Diamond (1990) for the US. The authors show that young workers experience the highest increases in the hazard rate of inflow into unemployment. Moreover, they face the largest decreases in the flow from unemployment into employment. Regarding studies for European countries, Gielen and van Ours (2006) use data for the Netherlands to decompose age-specific flows into and out of unemployment. They find that the peaks in youth unemployment during recessions are generated by reductions in hirings rather than by employment cuts, while among older workers job separations matter much more. A different conclusion has been reached by Elsby, Smith and Wadsworth (2010), who show that in the UK, the contribution of increasing job separations to the spikes in youth unemployment is higher than the impact of declining job accessions.

Summing up, this brief literature review shows that from a theoretical point of view the role of job accessions and job separations for the changes in the aggregate unemployment rate is far from being uniform across countries and can be related to country-specific institutional settings. In countries with high level of employment protection, employers may tend respond to the economic downturns by cutting creation of new jobs rather than by firing workers. In such countries, the unemployment rate is mostly determined by changes in the hiring rate rather than by job separations. However, to the best of our knowledge, under specific employment protection regimes, notably in countries which implemented partial deregulation of the labour law, the unemployment among specific demographic groups can be affected by changes in the economic conditions in a very different way. In such countries, the risk of job dismissals may be channelled to the group of young people, who are usually labour market entrants and who experience high dynamics of both job accessions and job separations. However, so far, there has been no study that takes a closer look at heterogeneous contributions of „ins" and „outs" to/ from unemployment across age-specific groups of workers while taking a cross-country comparative perspective.

3. POLISH AND SPANISH LABOUR MARKET

Both Poland and Spain experienced turbulent times across the last two decades. Interestingly, despite geographic distance and somewhat different initial conditions regarding institutional arrangements, the labour market developments were quite similar in these two countries. Both underwent economic restructuring, struggled with persistently high unemployment and recorded an unprecedented growth of flexible employment forms.

At the onset of modernisation of its economy, Spain needed to cope with the legacy of the Francoist autarkic model of economic development, with high protectionism, high share of agriculture, paternalistic labour relations, and a concentration of manufacturing production in energy-intensive sectors. The adverse supply shock in the mid-70s related to the oil price increases triggered a large initial rise in unemployment. Spanish unemployment, initially at the level of below 5%, started to rise during the second half of the 1970s and in the first half of the 1980s it reached 21%. It declined in the second half of the 1980s from 21% to 16%, but due to the further negative demand shock during the early 1980s it resumed an upward trend. As a result, at the beginning of the 1990s the unemployment rate amounted to about 24%. According to Dolado and Jimeno (1997), remarkable

increases in the unemployment rate since the beginning of the 1970s till second half of 90ies could be attributed to an intense job destruction in agriculture, which was not sufficiently compensated by the job creation in other economic sectors. The labour law regulations ensuring high employment protection, the generosity and coverage of unemployment benefits, and the increases in labour taxation made it very difficult to absorb these shocks and hence contributed to very slow recovery on the labour market (Franchi and Ordóñez, 2011). The second half of 90ies and the first half of 2000s was a period of improvement of the labour market situation. The unemployment fell to 8% in 2007, but then the global financial crisis in 2008 again brought an increase in the aggregate unemployment to the double digit levels. Figures 1a and 1b present in detail the evolution of unemployment rates in Spain throughout the whole period described here. It is evident that the youth unemployment rates, especially among Spanish men, were reacting to the crises more strongly than the unemployment rates of prime age workers.

FIGURE 1a and 1b about here

Poland, after the fall of the Iron Curtain in 1989, also had to make a transition from highly protected economy, with focus on heavy industries and a high share of (mainly collective) agriculture, and labour market institutions either undeveloped or not suitable for market rules. The transition from centrally planned to market economy resulted in an initial crisis at beginning of the 1990s. It led to a sudden appearance and increase in the formerly almost non-existent unemployment. The reforms such as opening markets for foreign capital and goods as well as liberalising wages and prices, were accompanied by the economic recovery and improvement of the labour market performance. However, in 1998 Poland was struck by the Russian financial crisis, which combined a devaluation of the Russian currency, a default on both domestic and foreign debts and a collapse on the stock market (Lokshin and Ravaillon, 2000). The Russian crisis was followed by the global economic slowdown in 2001-2002, resulting in the increase in unemployment rates to a level of over 20%. The late economic recovery in 2005 brought about substantial improvement on the labour market. The recent world-wide economic downturn in 2008 was again accompanied by a surge in the unemployment rates up to 10% in 2011. We demonstrate the responses of unemployment rates among young and prime-age workers to the changes in macroeconomic conditions on Figure 2a and Figure 2b. It is clear that in general these unemployment rates followed similar patterns, but the dynamics of unemployment growth was higher among young people.

FIGURE 2a and 2b about here

Apart from substantial increases in the unemployment rates that accompanied subsequent economic shocks, and the high persistence of the level of unemployment in the periods of economic recoveries (e.g. Cuestas et al., 2011), Polish and Spanish labour markets shared another feature that distinguished them from other countries. In both countries, as a response to the persistent unemployment, the governments reformed the labour law regulations in a way that led to substantial increase in the proportion of the so-called fixed-term contracts[3]. The nature of these

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[3] Fixed term contracts are set up if employer and the employee agree upon termination of the job in conditions such as reaching a certain date, completion of an assignment or return of another employee who has been temporarily replaced. Fixed-term contracts cover paid work performed within contracts of limited duration, contracts for seasonal work, as well as those for specific tasks.

reforms and their timing differed in an important way, but they resulted in similar changes in the structure of employment in both countries.

In Spain, till early 1980s, permanent work contracts represented more than 90% of all contracts among the employees. Fixed term contracts were used by employers mainly in case of seasonal jobs in selected industries, for example in agriculture or in the tourist industry. In 1984, the Spanish government implemented a reform that regulated fixed-term contracts. From then on, fixed-term contracts could be used not only for hiring seasonal workers but also in case of regular jobs. Unlike workers with permanent contracts, those with fixed-term contracts could be easily fired because of much lower dismissal costs related to lay-offs procedures and severance payments . In a country with remarkably high employment protection legislation, this was indeed a substantial change in the labour relations. As a result of these reforms, the proportion of workers with fixed-term contracts in total employment surged up to 30% in 1990. Interestingly, the level of temporary employment did not decline afterwards despite a series of countervailing labour market reforms in 1994, 1997 and in 2001, which decreased the gap in the level of employment protection legislation between the fixed-term and permanent contracts as well as raised restrictions for the use of fixed-term contracts.

Similar developments could be observed in Poland. Till the end of the nineties, full-time work performed on employers' premises within a permanent contract was the prevailing employment arrangement. This was related to quite rigid labour law regulations inherited after the socialist system. However, the labour law was reformed at the end of 1990s and adjusted to the needs of a modern economy (Kwiatkowski et al., 2001). Since then, the comparative studies examining the rigidity of labour law regulations show that Poland has neither very restrictive nor exceptionally liberal labour law (OECD, 2008). In 2002, as a response to the high unemployment rate, the Polish government liberalised the use of fixed-term contracts. Although the economic rationale for this reform was similar as in Spain, the institutional context differed in an important way: Spanish reform was introduced to a fairly regulated labour market with high dismissal costs, whereas in Poland at the time of introduction of reform, the labour law regulations were quite moderate. Nevertheless, Polish employers reacted similarly as Spanish ones: fixed-term contracts became increasingly common and their share in the total employment increased from 12% in 2001 up to 28% in 2007 and remained at this level ever since. Hence, currently the proportion of employees with such contracts is very close to the one observed in Spain (European Commission, 2010)[4].

The patterns of labour market flexibilisation in Poland and Spain have important implications for the interpretation of our empirical findings, because fixed term contract are typically associated with higher risk of transition into unemployment as compared to permanent contracts (Giesecke and Groß 2003; Bover and Gomez, 2004), thus increasing the contribution of job separations to the overall changes in the aggregate unemployment rate. Employees with fixed-term contracts either need to search on-the-job for other contracts or they enter unemployment after their contracts expire. Given that both in Poland and in Spain the vast majority of first jobs are fixed-term contracts (European Commission 2010), the rising proportion of temporary workers among young employees in our two countries may have contributed to the increasing probability of job separations specifically within this group.

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[4] According to European Commission (2010), in 2009 the proportion of workers with fixed-term contracts in Poland amounted to 62.0% among youth and 23.6 among the prime aged workers. In Spain the corresponding shares amounted to 55.9% and 25.7 for young and prime-aged workers, respectively.

4. DATA AND METHODS

Our aim is to assess the role of changes in job accessions and separations rates for changes in unemployment among young and prime age workers in Poland and Spain across the last two decades. A standard decomposition method that allows disentangling the role of these two factors has been proposed by Shimer (2012) and applied in empirical research in quite many studies. The key idea in this method is that any change in unemployment equals the excess of inflows into unemployment over outflows out of unemployment, where the job arrival rate and job separation rate are described by Poisson processes. Shimer's decomposition accurately describes the evolution of unemployment only for countries where the unemployment rate is closely approximated by its flow steady state value. The extension of Elsby et al. (2012) is crucial particularly for an empirical study on Poland, where the observed unemployment rate diverges from the steady state, especially in the 2000ies (Góra and Walewski, 2002). Moreover, over the past two decades both Poland and Spain stood out as countries with relatively intensive labour market flows in comparison with other EU states (Gąska and Lewandowski, 2010).

The Shimer's decomposition, developed subsequently by Elsby et al. 2012, starts with the description of time evolution of the unemployment rate, i.e.:

$$\frac{du_t}{dt} = s_t(1 - u_t) - f_t u_t \tag{1}$$

Where u_t is the monthly unemployment rate, s_t is the monthly rate of inflow into unemployment, and f_t is the monthly outflow rate from unemployment. Denoting u*, the flow steady-state unemployment rate as $u^* = \frac{s_t}{s_t + f_t}$ [5], and λ_t, the annual rate of convergence to steady state as: $\lambda_t = 1 - e^{-12(s_t + f_t)}$, the unemployment rate in month t can be expressed as:

$$u_t = \lambda_t u_t^* + (1 - \lambda_t) u_{t-12} \tag{2}$$

The monthly change in the unemployment stock will be given by: $u_{t+1} - u_t = u_{t+1}^{<1} - F_t u_t$; where the F_t is the monthly probability of outflow and $u_{t+1}^{<1}$ is the stock of unemployed workers with duration of less than one month, which proxies the inflows to unemployment. Thus, the probability than an unemployed leaves the unemployment within d months can be expressed as:

$$F_t^{<d} = 1 - \frac{u_{t+d} - u_{t+d}^{<d}}{u_t} \tag{3}$$

which means an estimate of the outflow rate given by: $f_t^{<d} = \frac{-\ln(1 - F_t^{<d})}{d}$ (4)

which is a hazard rate corresponding to the fact that an unemployed leaves unemployment within d months from entering it.

The empirical analyses comprise of the following major steps: (1) estimation of hazard rates of outflow from unemployment (eq. 4) for groups of unemployed with different unemployment spells (the available data make it possible to estimate the hazard rates for d=1,3,6,12) (2) formal testing for duration dependence in outflow rates from unemployment (3) assigning appropriate weights for the estimated hazard rates of unemployment outflow in order to calculate the aggregate hazard rate (4)

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[5] We also used a modified version, $u^* = \frac{s_t}{s_t + f_t + g_t}$, accounting for labour force growth (g_t is the labour force growth rate). Results are discussed in the next section and available upon request from authors.

accounting for labour force growth (5) estimation of hazard rates of inflow into unemployment (6) decomposition of the changes in unemployment. We will describe briefly each of these steps.

First, we derive the asymptotic distribution of the hazard rates across various unemployment durations. Next, after having tested for duration dependence (which turned out to be statistically insignificant), we use these estimates to compute an optimally weighted estimate of the outflow hazard rate that minimizes the mean squared error of the estimate for each period. Next, the rates of inflow into unemployment (which represent a hazard associated with a probability of becoming unemployed) are estimated by solving equations (2) and (1). Finally, we compute the contribution of changes in the job accessions and job separations rates into changes in the steady state unemployment. Our decompositions take into account the fact that the unemployment rates may be affected not only by contemporaneous changes of job accessions and job separations rates, but instead they may deviate from the steady state because of past changes in the flow rates. Specifically, we compute β_f, β_s and β_0, which respectively denote the contribution of changes in the inflow into unemployment, outflow from unemployment and a residual. These are computed as:

$$\beta_f = \frac{cov(\Delta lnu_t, C_{ft})}{var(\Delta lnu_t)}, \beta_s = \frac{cov(\Delta lnu_t, C_{st})}{var(\Delta lnu_t)}, \beta_0 = \frac{cov(\Delta lnu_t, C_{0t})}{var(\Delta lnu_t)} \tag{5}$$

Where C_{ft}, C_{st}, C_{0t} denote the respective cumulative distributions of the current and past variations in the inflow rate, outflow rate and the initial deviation from steady state at $t=0$ (see Elsby et al. 2012 for details).

The analyses are based on the data from the Polish and Spanish Labour Force Survey covering the period from the beginning of the 1990s until the most recent available waves after the recent economic crisis. The national labour force surveys have a number of advantages from the point of view of this paper. First of all, they provide the most contemporaneous data source, covering the most recent crisis. Second, those surveys are regarded as the most reliable source of information about the labour market developments in Poland and Spain. Just as national unemployment registers, they serve the purpose of informing the public about the labour market situation. However, unlike the national unemployment registers, they are not susceptible to the changes of definitions of unemployment related to the changes in legislation and their design better reflects the economic definition of unemployment, rather than formal legal status. Furthermore, due to the supervision of ILO and EUROSTAT, both Spanish and Polish Labour Force Survey are standardized and internationally comparable. Young workers are defined as those aged 15-29, whereas the prime age group encompasses those aged 30- 44.

5. EMPIRICAL RESULTS

AGE DIVIDE IN JOB ACCESSIONS

In the first step, we relate the changes in the unemployment rates described in detail in Section 3 to the underlying developments in the rates of inflow and outflow from unemployment. Regarding Spanish labour market, the poor situation at the beginning of the 1990s was reflected in very low level of the job accession rates. As demonstrated on Figures 3a and 3b both among men and women the level of outflow from unemployment was quite restricted in that period. As the economic situation in late 1990ies and the first half of 2000ies improved, the level of job accession rates increased, with the rate of growth of job accession rates being more dynamic in the youth group. The

job accession rates reached a peak in 2007 – this time giving prime-aged men an advantage when it comes to the level of job accession rates (among women younger age-group remained more privileged). Then came the global financial crisis in 2008, which caused a very substantial halt in hirings on the Spanish labour market. The outflow from unemployment recorded a very steep decline among all groups of workers, though it was much stronger among men.

FIGURE 3a and 3b about here

Regarding the job accession rates on the Polish labour market, the estimates presented on Figure 4a and 4b reveal that the job accession rates remained at quite low levels during all three recessions: the transitional one in the early 1990ies, the one after the Russian crisis in 1998 and economic slowdown in 2001 and the most recent one that took place in 2009 (although the response to the latest crisis has so far been mild). At the same time, the outflow from unemployment during upswing in 2005-2007 was rather moderate as compared with the peak observed in Spain. The youth job accession rates remained at slightly higher level than those of prime-age workers during the whole analysed period. Another striking observation is that while Spanish job accession rates reveal a remarkable gender gap, in Poland the job accession rates among men and women evolved in a very similar way and tended to converge over time.

FIGURE 4a and 4b about here

AGE DIVIDE IN JOB SEPARATIONS

While the job finding rates among young people in Spain were most of the times higher than the job accession rates among prime-aged workers, the differences in job separation rates were persistently higher in the former group during the whole period analysed in this paper. Moreover, the responses of job separation rates to the economic downturns differed among young and prime age workers. As demonstrated on Figures 5a and 5b, both young men and women faced much stronger increases in the risk of lay-off than the prime-aged group and this age discrepancy in the job separation rates increased during the last economic crisis (after 2007). This implies that rising job separations contributed more to the youth disadvantage in terms of the level of unemployment rate than declining job accession rates.

FIGURE 5a and 5b about here

The job separation rates in Poland reveal a somewhat different pattern. Indeed, Figures 6a and 6b shows that similarly as in Spain, the risk of job separations was higher among youth than in the prime-age group throughout the whole period. However, the response of youth rates of inflow into unemployment was much more similar to those observed in the prime-aged group most of the times. The initial crisis in the early 1990ies was associated with a rather small difference in the level of job separation rates between young and prime aged workers. The economic shocks that hit the Polish economy in 1999 and 2001-2002 were followed by larger increases in the risk of inflows into unemployment among young workers than among their prime-age counterparts. Finally, the latest crisis from 2008 hardly raised the gap between job separation rates of the young and prime-aged group. It seems that the increase in the youth unemployment rate in the aftermath of this crisis (shown on Figures 2a and 2b) resulted mainly from the declining job accession rates rather than from increasing job separation rates. Unlike in Spain, the most recent crises did not lead to a situation where young people were first to be fired.

FIGURE 6a and 6b about here

CONTRIBUTION OF JOB ACCESSIONS AND JOB SEPARATIONS TO THE UNEMPLOYMENT RATE

The empirical observations described above can be quantified and summarized by means of a formal decomposition of changes in the unemployment rate, as presented in the methodological section. We distinguish a component related to the changes in chances of finding a job and a component related to the changes in risk of dismissals. This step can bring us closer to understanding whether the peaks in unemployment rates of specific groups of workers were driven mainly by job accessions or rather by job separations and how these contributions differed in Poland and Spain.

Table 1 provides the results of such decomposition for Spain (the columns in the Table 1 correspond to the contributions of variation in job accession and job separation rates, cf. equation (5)[6]). It confirms the earlier impression that in this country, job separations have a non-negligible contribution to the young men's unemployment changes, whereas prime-aged workers remain substantially protected from the risk of lay-offs. Among young men, about 45% of the variation in the unemployment rate can be attributed to the changes in the risk of job separations, whereas among prime-aged workers the inflows into unemployment account for about 25%. The changes in job separations do not have such a strong contribution to the increases in the unemployment rates among women, though - neither the prime aged, nor the youngest ones, as only 25% of variation in female unemployment rates can be attributed to changes in job separation rates. This could be related to several factors, mainly the much higher share of public sector jobs among women than among men in Spain and the fact that due to the sectoral structure of male and female employment the recent crisis led to a much higher job loss among men, whereas women were more likely to work shorter hours rather than to drop out of employment (Guner et al., 2012)

TABLE 1 about here

Consistently with initial insights from the analysis of job separation and accession rates in Poland, the decomposition reveals that the relative contribution of these two factors to the total increase in unemployment rates among youth and prime-aged group is much more balanced. The job separation rates among young men shape the changes in the unemployment rates only a bit more strongly than in the prime-aged group. The contribution of job separation rates to the total increase in the unemployment rate amounts to about 53%, whereas among prime-age workers it amounts to about 48%. This difference is definitely less pronounced than in Spain. Regarding women, among young females about 60% of variation in the level of unemployment rates could be ascribed to changing job separation rates, as compared to 48% in the prime-aged group. Hence, in Poland young women seem to be less protected from lay-offs than prime-age ones and this age gap in the contribution of job separation rates is also relatively high, especially if compared to the zero difference among young and prime aged Spanish females.

TABLE 2 about here

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[6] Once we account for labour force growth, the contributions of job accession and separation rates change, though do not alter the general interpretations and conclusions, neither for Spain nor for Poland. Detailed results are available from authors upon request.

CONCLUSIONS

Our study shows a number of interesting observations regarding the sources of youth labour market disadvantage by drawing on two interesting case studies, - the two European countries which stand out with very high youth unemployment rate: Poland and Spain. We show that an important part of the changes in the youth unemployment rate is caused by lay-offs that are more likely to occur among young people than among prime age workers. Both in Poland and Spain the probability of job separation among young men was persistently higher compared to prime-age workers during last two decades. Young men were more likely to lose their jobs both during economic upswings and during a number of downturns that hit Polish and Spanish economies. Moreover, whenever a recession occurred, youth job separation risks reacted to changing macroeconomic conditions much stronger than the corresponding risk for prime age group. The job separation rates not only explain a remarkable share of variation in youth unemployment rate but also contribute to increases in the gap in the labour market performance of youth and prime-age workers. Clearly, this gap emerges during crises because prime age workers enjoy relatively higher job stability, whereas youth seem to be more likely to face dismissals.

The difference in the magnitude of the reaction of job separation risk to recessions between youth and prime-age group was much more pronounced in the case of the Spanish male workers. We find that the prime-age workers in Spain have low job separation risks – both as compared to the young workers in Spain and in comparison to the prime-aged workers in Poland. Moreover, their job separation rates hardly react to the worsening macroeconomic conditions, and hence their unemployment is generated mainly by the declines in the job accession rates. In contrast to that, the job separation rates among young male workers in Spain strongly react to crises, contributing a lot to the increases in the youth unemployment rate. In Poland, the contribution of the job separation rates to the changes in unemployment rates in both age groups was much closer. Hence, in Spain, young male workers seem to be some kind of a "buffer stock" of labour force which is first to be fired whenever a recession occurs, compared to their prime age colleagues. This may be related to the specific regime of employment protection legislation in Spain, which protects prime age workers and channels the risk of job separations to labour market entrants. Regarding female workers, in Poland in general women' labour market outcomes are very similar to those observed among men. In contrast to that, our analyses for Spain reveal remarkable gender differences in a number of respects. First of all, female unemployment remained persistently higher than male and – unlike in Poland – in Spain we see no signs of its convergence to male unemployment. Second, in Spain the changes in job separations among women do not have such a strong contribution to the increases in the unemployment rates as among men. This could be ascribed to the fact that the recent crisis led to a much higher job loss among men (due to its sectoral structure) whereas women were more likely to work shorter hours rather than drop out of employment (Guner et al., 2012) .

Summing up, although both Poland and Spain are characterised by labour markets with high unemployment and an important role of fixed-term contracts, the position of youth on these labour markets is very different. Spain, arguably due to its specific employment legislation regime with "flexibility at the margin", channels the unemployment risk to the group of young (male) workers. In

Poland, the labour law legislation does not imply such a large divergence in employment protection between different group of workers as in Spain, hence the gap in job (in)security is less pronounced.

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FIGURES

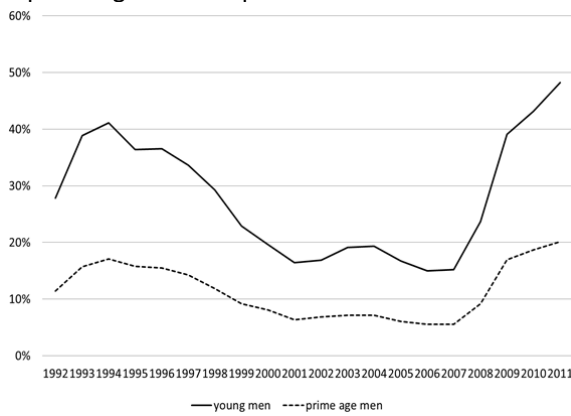Figure 1a The unemployment rate of young and prime age men in Spain

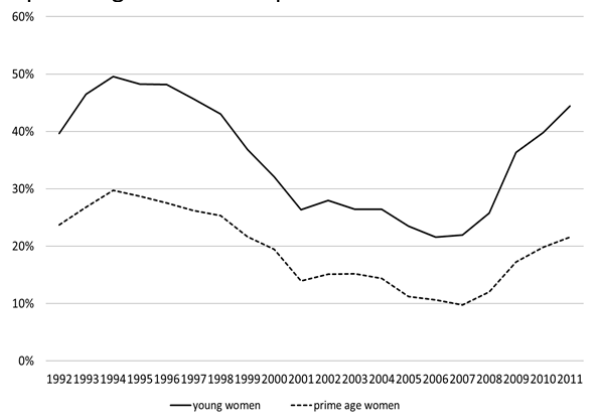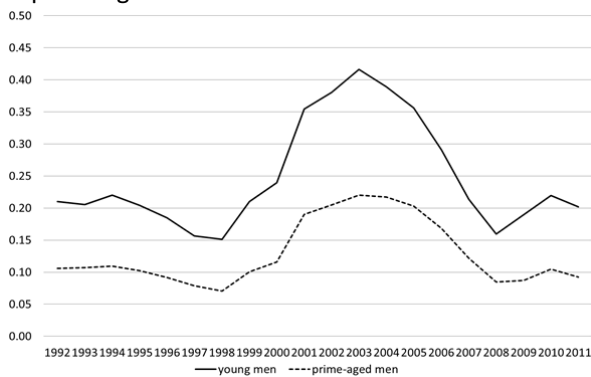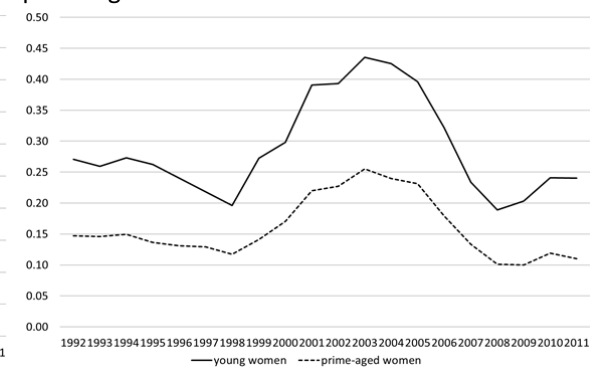Figure 1b The unemployment rate of young and prime age women in Spain

Figure 2a The unemployment rate of young and prime age men in Poland

Figure 2b The unemployment rate of young and prime age women in Poland

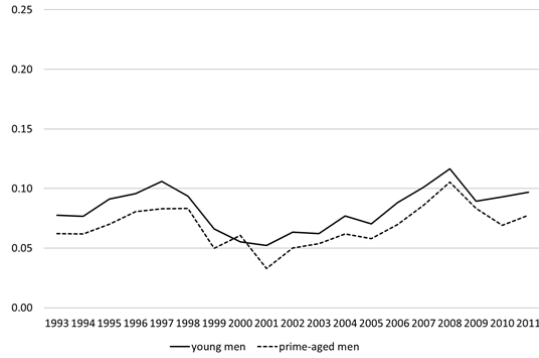Figure 3a The hazard rate of outflow from unemployment among young and prime-age men in Spain

Figure 3b The hazard rate of outflow from unemployment among young and prime-age women in Spain

Figure 4a The hazard rate of outflow from unemployment among young and prime age men in Poland

Figure 4b The hazard rate of outflow from unemployment among young and prime age women in Poland
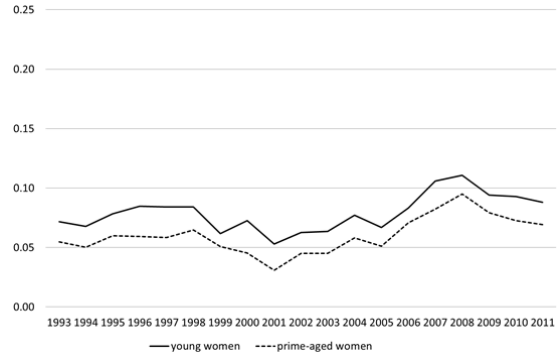

Figure 5a The rate of inflow into unemployment among young and prime age men in Spain
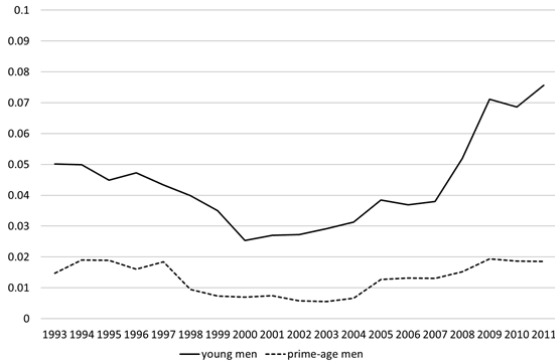

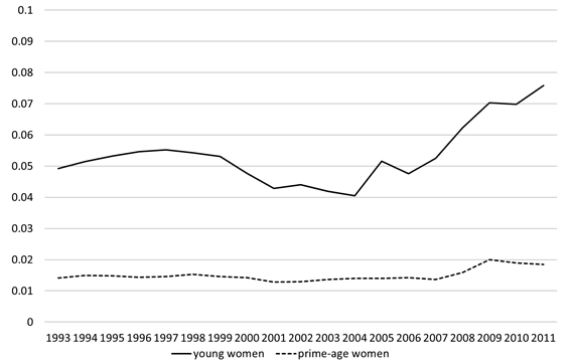Figure 5b The rate of inflow into unemployment among young and prime age women in Spain

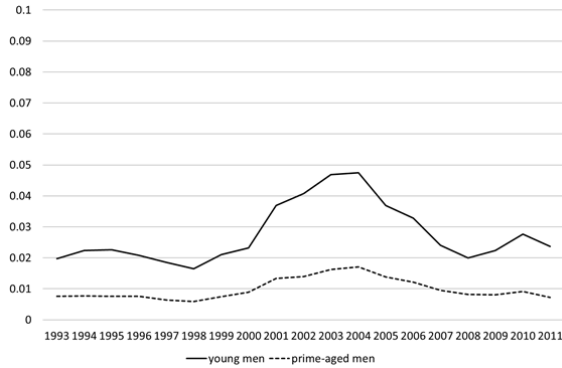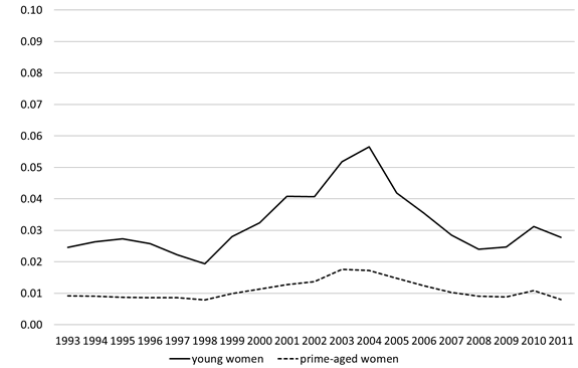Figure 6a The rate of inflow into unemployment among young and prime age men in Poland

Figure 6b The rate of inflow into unemployment among young and prime age women in Poland

TABLES

Table 1 Decomposition of unemployment fluctuations in Spain

	Contribution of job accession rates (βf)	Contribution of job separation rates (βs)	Impact of past changes in the job accession and job separation rates (β0)	Residual
Young men	0.58	0.45	0.00	-0.04
Prime-age men	0.80	0.25	0.00	-0.05
Young women	0.77	0.25	0.00	-0.03
Prime-aged women	0.72	0.25	0.01	0.03

Source: Spanish LFS, authors' calculations.

Table 2 Decomposition of unemployment fluctuations in Poland

	Contribution of job accession rates (βf)	Contribution of job separation rates (βs)	Impact of past changes in the job accession and job separation rates (β0)	Residual
Young men	0.50	0.52	0.00	-0.02
Prime-age men	0.58	0.48	-0.00	-0.06
Young women	0.43	0.60	0.00	-0.03
Prime-aged women	0.52	0.48	0.00	0.00

Source: Polish LFS, authors' calculations.