Youth Labour Market Integration across Europe: the Impact of Cyclical, Structural and Institutional Characteristics

Marloes de Lange*, Maurice Gesthuizen and Maarten H.J. Wolbers

Department of Sociology, Radboud University Nijmegen, P.O. Box 9104, 6500 HE Nijmegen, the Netherlands. *Phone and email of corresponding author: + 31 24 361 2321, m.delange@maw.ru.nl.

Abstract

Young people in Europe face great difficulties in entering the labour market: among labour market entrants the share of unemployment and temporary employment is generally high, although considerable differences in labour market integration exist between European countries. In this paper, we study to what extent cyclical, structural and institutional characteristics explain differences in labour market integration (i.e. the likelihood to be in temporary employment or in unemployment compared to permanent employment) of young people across European countries, in the period 1992-2008. In addition, we examine to what degree educational differences exist in the impact of these macro characteristics. In order to do so, we compare the labour market integration of young people (N=18,956) across 29 European countries (representing 468 combinations of country and school-leaver cohort). Data are used from the European Social Survey (2002, 2004, 2006 and 2008). The results of the multilevel multinomial logistic regression analysis suggest that cyclical, structural and institutional characteristics are important in explaining cross country variation in youth labour market integration. In countries in which the level of unemployment is higher, labour market integration of young people appears to run less smoothly. The level of economic globalization, conversely, improves young peoples’ labour market integration, as opposed to our expectations. Also with regard to the impact of the vocational specificity of a country’s educational system, the findings show that youths’ labour market integration improves. Higher educated entrants in particular profit from this positive effect of vocational education. Finally, as the employment protection legislation is stricter, youth experience more difficulties in labour market integration, especially higher educated young people.

Introduction

Young people face great difficulties in entering the labour market nowadays. Not only youth unemployment rates are high in European countries, also the share of flexible employment relations, like temporary contracts, is large among youth. In 2011, more than one in five European youths below the age of 25 was unemployed and even two in five employed young people had a temporary job (OECD, 2012). Although school-to-work transitions in Europe do not run very smoothly at the moment and young people experience much insecurity when entering the labour market, labour market integration differs considerably across European countries. Especially in southern European countries, unemployment numbers are alarmingly high: in Portugal and Italy almost one in third young people below the age of 25 is unemployed, and in Spain and Greece almost half of the young people does not have a job. Temporary employment rates among recently graduated employees in Spain and Portugal vary around 45 per cent. Also in Eastern Europe, youth labour market integration involves much uncertainty with unemployment rates exceeding 25 percent, like in Poland and Hungary. If Polish school-leavers, however, find a job, in 50 per cent of the cases it is only a temporary job. In other parts
of Europe, youth labour market integration seems to run at least more smoothly: youth unemployment is ‘only’ 8 per cent in the Netherlands and Switzerland, for instance, and also in other western and northern European countries, like Austria, Germany and Norway, these numbers are relatively low, and have not risen very sharply in the last decade. At the same time, however, the share of temporary employed graduates is sometimes quite high in these countries: for both the Netherlands and Germany, about one in three young employees has a fixed-term job today.

Macro-economic conditions play an important role in explaining differences in youth labour market integration between European countries (OECD, 2000; Gangl, 2002; Blanchard, 2006). If the aggregate unemployment rate or share of temporary employment in a country is high, youth unemployment and youth temporary employment are high too (and usually much higher). Still, in some countries youth are more likely to be unemployed or temporary employed, compared to the rest of the labour force, than in other countries. In Italy, for instance, youth are almost 3.5 times more likely to be unemployed than older people, while in Germany this ratio is only 1.5. Similarly, Russian youth are about twice as likely to have a temporary job compared to the older workforce, whereas in Luxembourg this ratio is almost 5. These figures suggest that macro-economic conditions alone are not able to explain country differences in youth labour market integration. Blossfeld, Buchholz, Bukodi and Kurz (2008), for instance, prove that also economic globalization led to more difficulties and precariousness in the labour market entry process, in addition to economic restructuring. In many other studies, the role of national institutional settings in explaining cross-national variation in labour market entry patterns between European countries is stressed.

With regard to the educational system, several researchers have studied the impact of vocational specificity on youth labour market integration in Europe (see for instance Van der Velden & Wolbers, 2003; Breen, 2005; Wolbers, 2007; Blossfeld, Buchholz, Bukodi & Kurz, 2008). These studies provide convincing evidence for improved youth labour market chances in countries in which clear signals about job seekers’ abilities and skills are emitted by the educational system. In addition, these studies show the important role of national institutional differences regarding employment protection legislation in explaining labour market entry patterns across Europe. It appears that in countries in which employees are more strongly protected against dismissal, youth unemployment is high. Recently, Baranowska and Gebel (2010) focused specifically on the impact of employment regulation of regular contracts on youth temporary employment in Europe and its interaction with the level of employment protection of temporary contracts. Although they did not observe this effect, they did find increasing risks of youth temporary employment in countries in which insider-outsider cleavages are more clear, i.e. in which collective bargaining coverage is higher.

Previous studies on youth labour market integration agree on the fact that young people in European countries face difficulties in entering the labour market nowadays, but only a few studies acknowledge that integration may be weaker or stronger among entrants with different educational credentials, due to possible heterogeneity in the impact of cyclical, structural and institutional factors. Gangl (2002) found that the lowest qualified entrants are most heavily affected by cyclical changes in economic conditions. De Grip and Wolbers (2006) observed that, in European countries providing more specific vocational education instead of more general education, again, low-skilled young workers are worse off with regard to being permanently employed, as access to such jobs is much more restrictive for individuals without the required skills, in such countries. Finally, also Wolbers (2007) concluded that the impact of institutional features varies considerably by level of education: the negative effect of employment protection legislation on finding a first significant job is stronger among higher educated school-leavers, whereas vocational specificity of the educational system positively affects the entry speed, but only for lower educated school-leavers.
The importance of studying cyclical, structural and institutional characteristics in explaining variation in the labour market integration of youth across Europe is reflected in the findings from previous research. Most of these studies, however, suffer from a number of shortcomings or drawbacks: first, in most studies only a limited number of European countries is compared. In this research, in contrast, we are able to study the labour market integration of young people, who left school between 1992 and 2008, in 29 European countries, by using European Social Survey data from 2002, 2004, 2006 and 2008. Our research hence includes an extensive number of countries and covers an extended period in time, in which differences between European countries in youth labour market integration actually became apparent. Comparing such a large number of countries results in a more powerful and stricter statistical test of our hypotheses, and allows for including several country characteristics. This brings us to a second drawback of previous studies that we can overcome in this paper, i.e. that cyclical, structural and institutional characteristics have not yet been studied simultaneously in one research design at a comparable scale. It is, however, important to do this, in order to determine the independent effects of these macro factors on youth labour market integration. Thirdly, most previous research focused on only one indicator of youth labour market integration. In this study, we take account of the fact that unemployment and temporary employment are concurrent alternatives to permanent employment, and need to be studied accordingly. Fourth, the inclusion of a rather large number of countries in our study, allows to estimate cross-level interactions between cyclical, structural and institutional characteristics and level of education on youth labour market integration. The research questions that we address are summarized as follows: To what extent do cyclical, structural and institutional characteristics explain differences in labour market integration of young people across European countries, in the period 1992-2008? To what degree do educational differences exist in the impact of these macro characteristics?

Theory and Hypotheses

Economic Climate and Youth Labour Market Integration
In the last decades, the economic climate in Europe was not very prosperous, although since the 1990s increasing heterogeneity in unemployment across countries became visible (Blanchard, 2006). Also today, all European countries are facing economic recession and unemployment rates are generally high, but still much diversity exists between countries: for instance, in Greece and Spain unemployment rates approach the 25 per cent, nowadays, whereas in Austria and the Netherlands unemployment is limited to only 5 per cent. The societal consequences of economic decline embrace more temporal uncertainty and increasing risks for employers. As a result, it becomes less attractive for them to make long-term commitments to employees. Instead, it led to so-called 'contingent asymmetric commitment’, a concept discussed by Breen (1997). This implies that there is an agreement between two parties, but one of both parties has the possibility to withdraw from the relationship if required by circumstances, while the other party can only comply with whatever the first party chooses to do. Employers gratefully use this strategy during economic recession, making them seek for a more flexible labour market in order to cut costs, which can be reached for instance through the creation of more temporary employment contracts. Employers’ degree of commitment to actual and prospective employees thus declines in economic less prosperous times: it allows them to retain employees when they are needed and to get rid of them when they are not (Breen, 1997, p. 477). Risks resulting from economic decline are hence shifted from employers to (future) employees, who have no other choice than accepting a temporary contract, or else being unemployed.
Why are especially young people affected by economic recession? As we addressed earlier, youth unemployment rates mainly follow aggregate economic conditions, and the link between youth and aggregate unemployment within countries is rather strong accordingly. Young people are labour market entrants and therefore considered as outsiders in the labour market by firms: they lack work experience, seniority, lobby, and networks, which makes them less attractive for employers, compared to the established work force (De Vreyer, Layte, Wolbers & Hussain, 2000; Bukodi, Ebralidze, Schmelzer & Blossfeld, 2008). Accordingly, we expect that as the unemployment rate is higher, young people experience more difficulties with labour market integration (H1a).

In general, all young people will experience more difficulties with labour market integration during economic recession, but indications exist for the fact that the magnitude of this risk is not uniformly transferred across employees (Breen, 1997). Breen argues that, for employers, it is very important in their decision to offer a long-term employment contract whether or not it is difficult or impossible to monitor exactly what a worker is doing. Highly skilled jobs are hard to submit to direct supervision, due to the specialized knowledge of the employee holding the job. Compared to lowly skilled jobs, such jobs are hence most often rewarded with a long-term employment contract, even in times of high uncertainty. Highly skilled jobs require more training on the job and hence more investments of the employer in his or her employees, compared to lower or (un)skilled jobs, in which employees can be more easily replaced. It is thus less advantageous to hire higher educated people for just a short amount of time. With regard to highly skilled jobs, the advantages of long-term commitment in times of economic prosperity are hence substantially larger than the advantages of flexibility in the employment relationship in times of economic recession (Breen, 1997: p. 480). As such jobs are only available for those with more education, higher educated school-leavers will be more often protected against the negative consequences of economic decline.

An additional reason why higher educated people are in a more advantaged labour market position during economic recession is that they can still choose to accept a lower-skilled job, if the number of available higher-skilled jobs is not sufficient to provide all higher educated school-leavers with a job at their educational level. For lower educated school-leavers, however, it is more difficult or even impossible to accept a job beneath their educational level. Therefore, they are more likely to be pushed in more precarious jobs, or even into unemployment. This is generally referred to as ‘crowding-out’ (Borghans & de Grip, 2000; Pollmann-Schult, 2005; Gesthuizen & Wolbers, 2010). Hence, we hypothesize that the negative effect of the unemployment rate on youth labour market integration, particularly applies to lower educated labour market entrants (H1b).

**Economic Globalization and Youth Labour Market Integration**

The economic climate can explain fluctuations over time in the degree to which employers experience insecurity and transfer this to (future) employees, leading to variation in the extent to which labour market integration of young people runs smoothly, but structural developments in recent decades predict a continuous increase in economic insecurity at labour market entry, i.e. due to the process of (economic) globalization. Globalization can be divided into different dimensions: economic, (socio)technological, cultural and political globalization (Mills & Blossfeld, 2005; Buchholz et al., 2009; De Lange, Gesthuizen & Wolbers, 2012), and each dimension is based on a specific macro process. Economic globalization is often considered as the key dimension of globalization, referring to internationalization of market economies and rising tax competition among welfare states. Especially after the fall of the Iron Curtain in 1989, which reunified the communist ‘Eastern bloc’ and the capitalist ‘West’, interaction increased between European countries with diverging wage levels, social standards and productivity levels. This led to a variety of players in different markets, resulting in growing competition between them. Both corporations and nation-states faced new challenges, in
particular concerning strong tax competition. Internationalization of markets thus implies a decline of national borders: countries started worldwide cooperation and agreed on developing common laws, institutions or practices, making it easier and cheaper to cross borders with commodities, labour, services and capital. Increasing global competition provides opportunities for corporations to capture a powerful position in the world economy, but also leads to more insecurity among employers because of the need to rapidly adjust prizes of goods and services to fluctuations in supply and demand. This also requires a flexible workforce. Employers have responded to these developments by starting to offer more non-standard work contracts, like temporary jobs (Kalleberg, 2009), especially to labour market entrants as they lack relevant work experience and have to compete with the more established workforce. Accordingly, we hypothesize that as the level of economic globalization is higher, young people experience more difficulties with labour market integration (H2a).

Again, it can be expected that increasing uncertainty that results from globalization does not strike all individuals in modern societies to the same extent (Kalleberg, 2009). As mentioned earlier, the concept of ‘contingent asymmetric commitment’ (Breen, 1997) can be particularly applied to lower educated individuals. As it is more difficult to submit employees in highly skilled jobs to direct supervision and to replace them by new employees, higher educated people are more often rewarded with a permanent contract, also if labour market uncertainties and insecurities are high. In addition, the phenomenon of ‘crowding-out’ is applicable here (Borghans & de Grip, 2000; Pollmann-Schult, 2005; Gesthuizen & Wolbers, 2010). Higher educated can still choose to accept lower-skilled jobs in case they cannot find a higher-skilled job due to labour shortage. There is, however, an additional reason why higher educated people are expected to be less affected by insecurities resulting from the process of globalization. The fact that companies could become globally competitive and market economies increasingly internationalized, has been made possible by technological advancements, such as the introduction of microcomputers and Internet (Kalleberg, 2009). Thanks to these new ICTs together with modern mass media, the diffusion of information and knowledge is hardly delayed or restricted by time or space (Castells, 2010). This technological innovation led to changes in the work process, i.e. a growing need for knowledge-intensive work (Berman, Bound & Machin, 1998; Maurin & Thesmar, 2004; Spitz-Oener, 2006). More specifically, the service sector expanded much at the expense of the traditional industrial and agricultural sectors. This ‘upgrading’ of the labour market structure involved a favour for skilled over unskilled or low-skilled workers, also known as ‘skill-biased technological change’ (Katz & Autor, 1999). Implications of these processes are that the number of highly-skilled jobs significantly increased, while jobs for lower skilled or unskilled people more and more disappeared or got outsourced to low-wage countries, making lower educated people more vulnerable for temporary employment or unemployment. In sum, all these arguments lead us to expect that the negative effect of economic globalization on youth labour market integration, particularly applies to lower educated labour market entrants (H2b).

**Vocational Specificity of the Educational System and Youth Labour Market Integration**

Countries differ with regard to the organization of the education and training system. Previous research has shown that the labour market entry process of school-leavers is clearly affected by the structure of the education and training system in a country (Hannan et al., 1997; Shavit & Müller, 1998; Müller & Gangl, 2003, see among others). An important aspect, within this respect, is the institutional link between education and (the entry into) the labour market (Allmendinger, 1989). Countries can be classified according to their regime of school-to-work transitions, i.e. into ‘qualificational space’ or vocational education versus ‘organizational space’ or academic education (Maurice & Sellier, 1979). This division is based on the way theoretical learning is combined with practical work experience within countries’ educational systems. In countries with a system of organizational space, the educational programme is rather general or academic. Specific occupational
skills in such systems, are not learned in education, but mainly obtained on the job. This implies that
the link between education and the workplace is quite weak in these countries, and employers are not
so familiar with the knowledge and skills of graduates. Conversely, in countries with a system of
qualificational space occupation-specific skills are actually taught in education, through vocational
education. Graduates in such countries are hence better prepared for practising particular professions
and require lower training costs, making them attractive for employers (Blossfeld, 1992). The latter are
well-acquainted with the knowledge and skills school-leavers possess, which are revealed by their
acquired diplomas and certificates. In countries with such education systems, the link between
education and the workplace is hence quite strong, and diploma requirements and certificates occupy
an important place (Mills & Blossfeld, 2005; Wolbers, 2007). Differences exist, however, in the way
this close link between the educational system and the employment system is institutionalized.
Vocational training can be organized mainly through ‘theoretical’ training in vocational schools (like
the Netherlands), ‘practical’ training on-the-job (like Ireland), or the ‘dual’ system (like Germany),
which is a combination of theoretical learning at school and work experience at the workplace. The
dual system offers advantages in the allocation process for both employers and future employees:
employers can screen potential workers at an early stage, which enables to teach them firm-specific
knowledge or skills (Wolbers, 2007). For future employees, an apprenticeship gives them the
opportunity to get acquainted with a specific firm and its employees, and their work experience within
this firm most likely increases their chances to get hired in this firm after completing education, of
course only in case of positive experiences during the apprenticeship. In brief, we expect that as the
educational system is more vocational specific, young people experience less difficulties with labour
market integration (H3a).

The increased importance of possession of the appropriate diplomas or certificates in countries with a
more vocationally specific educational system does, however, lead to the expectation that labour
market opportunities differ more strongly between people actually possessing these qualifications
versus the people lacking those. In educational systems with a strong orientation towards vocational
training, the opportunities of the least qualified will be reduced as jobs are only available to
individuals possessing the required knowledge and skills, i.e. intermediate and highly educated school-
leavers (de Grip & Wolbers, 2006; Wolbers, 2007). Higher educated graduates hence profit from less
job competition in such educational systems. Conversely, in countries providing more general,
academic education, diplomas and certificates take a less prominent place, and jobs are more easily
accessible without the proper qualifications, as skills are learned mainly on the job. It is hence
hypothesized that the positive effect of the vocational specificity of the educational system on youth
labour market integration, particularly applies to higher educated labour market entrants (H3b).

**Employment Protection Legislation and Youth Labour Market Integration**

In addition to institutional differences between countries in the organization of the education and
training system, also institutional characteristics with regard to the labour market can explain country
variation in the labour market entry process of school-leavers. Labour market regulation seems to be a
relevant feature within this respect. According to the insider-outsider theory of employment and
unemployment, labour market participants can be divided into ‘insiders’ and ‘outsiders’ (Lindbeck &
Snower, 1988). The group of insiders consists of employed workers, who are established in the labour
market, while the outsiders refer to the group of unemployed workers. Labour market entrants can be
regarded as a specific group of outsiders, since they lack any work experience and have to compete for
available jobs with the already established workforce, the insiders (De Vreyer et al., 2000). The latter
possess a powerful position in the labour market: labour unions represent the interests of employees in
negotiating with employers for higher wages and better working conditions. Outsiders are not engaged
in these negotiations and do not see their interests represented. Insiders in the labour market benefit
from strong employment protection, in order to reach high job and employment security. Employment protection refers to legislation on hiring and firing of employees. Insiders hence try to improve their legal employment position by embedding a number of employment conditions (terms of notice, severance pay, seniority, etcetera) more strongly in the law and/or collective labour agreements (Wolbers, 2007). Protection of insiders in the labour market increases the gap of outsiders to a stable position in the labour market, and enlarges the likelihood that they have to enter the labour market in a precarious employment position, i.e. a temporary job or unemployment. European countries vary in the strictness of employment protection legislation (OECD, 1999), and hence differences may be expected in the smoothness of the school-to-work transitions between countries. We expect that as employment protection legislation is stricter, young people experience more difficulties with labour market integration (H4a).

Also with regard to employment protection legislation it seems reasonable to expect educational heterogeneity in its impact on youth labour market integration. Higher educated people more often find themselves in the primary labour market segment, in which the negotiations between labour unions and employers actually take place, and employment contracts of insiders are hence more strongly protected (Lindbeck & Snower, 1988). Labour turnover costs are high within this labour market segment and employees consequently are more costly to dismiss. Lower educated people, on the other hand, find themselves more often in the secondary labour market segment, which is less regulated and in which employment contracts are less protected from dismissal. Accordingly, we expect that the negative effect of employment protection legislation on youth labour market integration, particularly applies to higher educated labour market entrants (H4b).

**Data and measurements**

**Data**
The research questions in this paper ask for individual level data comparing the labour market integration of young people across European countries. To this reason, we have used data from the European Social Survey (Cumulative File Rounds 1-4), collected in 2002, 2004, 2006 and 2008, covering 29 countries in Europe (Jowell et al. 2003, 2005, 2007 and 2009), i.e. Austria (AT), Belgium (BE), Bulgaria (BG), Cyprus (CY), Czech Republic (CZ), Denmark (DK), Estonia (EE), Finland (FI), France (FR), Germany (DE), Greece (GR), Hungary (HU), Ireland (IE), Israel (IL), Italy (IT), Luxembourg (LU), the Netherlands (NL), Norway (NO), Poland (PL), Portugal (PT), Russian Federation (RU), Slovakia (SK), Slovenia (SI), Spain (ES), Sweden (SE), Switzerland (CH), Turkey (TR), Ukraine (UA) and the United Kingdom (GB). In these countries, all persons aged 15 and over resident within private households, regardless of nationality, citizenship, language or legal status, belong to the target population. The ESS is an academically-driven survey and includes a wide range of questions covering essential topics in this paper, i.e. with regard to education and labour market participation. Due to its high cross-national comparability of measurements, the ESS data are particularly appropriate for country comparisons. In all countries, equivalent probability samplings have been applied.

Given our focus on labour market entrants in this paper, we restricted our analysis to respondents who left education within the ten years period prior to the moment of interview, at an age of minimally 15 and maximally 34 years old. Respondents who indicated to be in education as their main activity in the last seven days before the interview or who were inactive (i.e. unemployed but not looking for a job, sick/disabled, retired, community or military service, housework) are excluded from the analysis. Year of leaving education is calculated on the basis of the length of the educational career, as reported by
individuals in the ESS. As we analyze data from 2002 to 2008, we study labour market entrants in the period between 1992 and 2008. After list-wise deletion of cases with missing information on any of the variables included in the multilevel analysis, the analytical sample contains 18,956 respondents at the lowest level of analysis (level 1). These individual level data have been enriched with contextual information at the highest level of analysis, i.e. combinations of country and school-leaver cohort (level 2), containing 468 units in total.

**Dependent Variable**
Labour market integration is measured by a categorical variable, distinguishing between permanent employment, temporary employment and unemployment. It was asked to respondents if they had an employment contract of unlimited or limited duration in their current job. This information was used to determine the type of contract (permanent or temporary) of respondents who are currently employed. Respondents who indicated to be unemployed and actively looking for a job in the last seven days are classified as ‘unemployed’. In the analytical sample, 61 percent of the respondents have a permanent job, 28 percent have a temporary job and 11 percent are unemployed. However, the distribution of young people in precarious labour market situations differs substantially across the countries included in this study, as Figure 1 represents. It appears, for instance, that in Turkey less than 35 percent of the youth have a permanent job, on average in the period 2002-2008, while the rest was unemployed or had a temporary job. In Estonia, only 20 per cent of young labour market entrants were in a precarious situation in the period observed, whereas 80 percent had a permanent job. These differences are large, and are an indication for the fact that labour market integration of young people differs considerably across European countries. In the multivariate analysis, both temporary employment and unemployment are regarded as a lack of integration in the labour market, compared to a situation in which respondents have a permanent job in their early career. In the analyses, we hence compare both temporary employment and unemployment with permanent employment.

**Independent variables**
Educational level is based on information regarding the highest level of education a respondent has achieved. Respondents with a low level of education have maximally lower secondary education completed (ISCED 0, 1 or 2) (12 percent). Intermediate level of education refers to respondents who completed upper secondary education or post-secondary non-tertiary education (ISCED 3 or 4) (45 percent). Finally, a high level of education is reached after completing tertiary education (ISCED 5 or 6) (43 percent). Low level of education is used as the reference category.

The micro level data have been enriched with several contextual characteristics, i.e. cyclical, structural and institutional characteristics. As explained, the higher level of analysis refers to the combinations of country and school-leaver cohort (within countries), varying between 1992 and 2008. Not every school-leaver cohort is represented within every country. This results in 468 combinations at the second level of analysis.\(^1\) The values on all contextual characteristics have been standardized and mean-centered at the macro level, before using them in the multivariate analysis. As a cyclical factor, we added the aggregate unemployment rate as provided by the International Labour Organization (ILO), based on Labour Force Survey data. For Luxembourg, the unemployment rates concern registered unemployment rates based on employment office records. The unemployment figures range from 1.6 percent (Luxemburg, 1992) to 24.1 percent (Spain, 1994).

Level of economic globalization, as a structural factor, is measured by the economic dimension of the KOF Index of Globalization (Dreher, 2006). This index includes two indicators. First, it refers to actual economic flows, which are usually taken as an indicator of globalization. This sub-index includes data on trade, foreign direct investment (FDI), portfolio investment and income payments to foreign nationals. Second, economic globalization includes proxies for restrictions to trade and capital,
which actually indicate the absence of globalization. More specifically, this sub-index refers to restrictions on trade and capital using hidden import barriers, mean tariff rates, taxes on international trade (as a share of current revenue) and an index of capital controls. The scale measuring economic globalization includes weights of all these variables and is transformed to an index ranging from one to hundred, where a higher value refers to a higher level of economic globalization (Dreher, 2006). We added the variable economic globalization concerning the period 1992-2008 for all 29 countries to the micro-level data. The original value of this variable ranges from 36.96 (Russian Federation, 1996) to 98.87 (Luxemburg, 2004).

Finally, we added two institutional characteristics. These characteristics differ less strongly over years (within countries) as the other two characteristics. Information on the closest year available is used as a proxy in case information on a particular year was missing. With regard to the educational system, we included the share of upper secondary education students in combined school and work-based vocational and technical programmes in the total of upper secondary students in all educational programmes per country in a particular year, as provided by the OECD. These figures vary from 0 per cent (for instance for Greece and Italy) to 59 per cent (for the Czech Republic). With regard to the labour market, we included a measurement referring to the overall strictness of employment protection legislation (EPL) in a country, provided by the OECD (Venn, 2009). This summary indicator refers to the difficulty of dismissal of employees on regular contracts and strictness of protection with regard to temporary employment. In our analytical sample, this variable ranges from 0.6 (for the United Kingdom) to 3.85 (for Portugal).

Control variables
We control our models for several characteristics. Sex of the respondent is included by distinguishing men (0) and women (1). Ethnicity is included as a dummy variable referring to natives (0) and non-natives (1), based on information regarding the country of birth of the respondent’s parents. If one or both parents are born outside the country in which the survey is being held, respondents are considered as non-native. Field of education is included, to control for the fact that graduates from particular study fields are more likely to enter the labour market in sectors which are more flexibilized and hence characterized by more precarious employment than others. Dummy variables are constructed indicating general education (reference category), technical education, economical education and cultural education. Finally, to account for the fact that some individuals have entered the labour market a longer time ago than others, having more labour market experience consequently, the duration since labour market entry (in years) is included, ranging from 0 to 10 years.

Results

Descriptive analysis
Before turning to the multivariate analysis, in which the influence of cyclical, structural, and institutional factors on young people’s labour market integration is examined simultaneously, we first show the bivariate relationship between each macro factor and the share of both temporary employment and unemployment in Figure 2. Over the period 2002-2008, the value on each of the four macro characteristics is compared to the share of temporary employment and the share of unemployment among labour market entrants within each country. We can conclude from this figure that, on average, in countries with a higher unemployment rate, the share of temporary employment increases, but especially the share of unemployed youth is higher, which is not surprising. However, with regard to the level of economic globalization, the results are unexpected: in countries which are highly (economically) globalized, both the share of temporary employment and unemployment appear
to be rather low. Conversely, in less globalized countries, the stock of young people in a precarious labour market situation seems to be higher. These bivariate results point towards the existence of a negative relationship between the level of economic globalization in a country and the share of youth in temporary employment and unemployment. Regarding the two institutional factors, the findings in Figure 2 seem to corroborate our expectations: first, in countries in which the educational system is more vocational specific, school-to-work transitions seem to be more smooth, as the number of labour market entrants in temporary employment or unemployment is relatively low in these countries. At the same time, in countries without vocational education or in countries that are less vocational specific, the share of students in temporary employment and unemployment is relatively high. These results suggest a negative relationship between the vocational specificity of a country’s educational system and the likelihood to experience difficulties in labour market integration. Second, Figure 2 shows that, in countries in which employment of insiders in the labour market is less strongly protected, a relatively small share of young people has a temporary job or is unemployed. As employment protection legislation is stricter, the share of young people in such precarious situations seems to grow, suggesting a positive relationship between EPL and experiencing difficulties in labour market integration.

**Multivariate analysis**

The observed relationships in Figure 2 are further investigated by means of multivariate analysis. Table 1 presents the results of the multilevel multinomial logistic regression on employment situation: both flexible employment and unemployment are considered as alternatives to permanent employment in these models. As outlined before, individuals constitute the lowest level of analysis (level 1) and are nested within combinations of country and school-leaver cohort (level 2). Six models have been estimated and are presented. In the first model, all main effects of the contextual characteristics (i.e. unemployment rate, economic globalization, share of vocational education and EPL) are estimated, as well as the effect of level of education, taking account of all individual level control variables. Based on the results of this model, the hypotheses regarding the main effects of the macro characteristics on youth labour market integration are tested (hypothesis 1a, 2a, 3a and 4a). In each additional model interaction terms are included between one of the contextual characteristics and level of education (Models 2-5), to test each interaction hypothesis (hypothesis 1b, 2b, 3b and 4b). In the last model, all main effects and interaction terms are estimated simultaneously (Model 6).

Before testing our hypotheses, we can conclude from the size of the coefficients of the macro characteristics in Model 1 that, in explaining cross-national variation in temporary employment, institutional factors (especially the vocational specificity of the educational system) play the most important role. To explain cross-national variation in unemployment, however, particularly cyclical and structural factors seem to be important.

From Model 1 it is furthermore clear that in countries in which the unemployment rate is higher, young labour market entrants are more likely to have a temporary job ($B=0.316$) or to be unemployed ($B=1.001$), compared to having a permanent job. The probability to have a temporary job or to be unemployed in the country with the lowest level of unemployment (i.e. Luxembourg in 1992; unemployment of 1.6 per cent) is 70.2 and 56.3 per cent respectively, whereas in the country with the highest level of unemployment (i.e. Spain in 1994; unemployment of 24.1 per cent), these probabilities are 76.4 and 77.8 per cent respectively. In countries with high levels of unemployment, young people hence face more difficulties with integrating in the labour market, as hypothesis 1a posed and the descriptive analysis showed. To determine whether this effect particularly applies to lower educated people (hypothesis 1b), the coefficients of the interaction terms between unemployment rate and level of education in Model 2 are studied: these show that the effect of unemployment on the likelihood of
temporary employment is larger for intermediate educated entrants, compared to lower educated. With regard to the likelihood of unemployment, the impact of the unemployment rate does not differ among entrants with different educational backgrounds. These findings lead us to reject hypothesis 1b.

Hypothesis 2a, regarding the effect of economic globalization, is also tested based on the results of Model 1. Instead of the hypothesized negative effect of this characteristic (implying a positive coefficient), economic globalization appears to reduce the likelihood of temporary employment (B= −0.341), and unemployment (B= −1.131), as compared to permanent employment. The probability to have a temporary job or to be unemployed in the country with the lowest level of economic globalization (i.e. Russian Federation in 1996; globalization of 36.96) is 70.2 and 56.3 per cent respectively, whereas in the country with the highest level of unemployment (i.e. Luxembourg in 2004; globalization of 98.87), these probabilities are 62.6 and 29.4 per cent respectively. Youth labour market integration hence improves as economic globalization further develops. This is against our initial expectations, but in line with the descriptive results. From Model 3, we derive that the effect of globalization on temporary employment applies to intermediate educated in particular (B= −0.820), and the effect on unemployment is less strong among higher educated entrants (B= −0.457). So, both hypothesis 2a and hypothesis 2b cannot be supported by our findings.

The hypotheses on the impact of the vocational specificity of a country’s educational system on youth labour market integration are tested in Model 1 and Model 4. As education is more vocationally specific, young people are less likely to have a temporary job (B= −0.635) or to be unemployed (B= −0.422), implying that labour market integration is easier in such countries, as we hypothesized (hypothesis 3a). The probability to have a temporary job or to be unemployed in a country in which the educational system is not vocationally specific (for instance, Italy) is 70.2 and 56.3 per cent respectively, whereas in the country in which the educational system is the most vocationally specific (i.e. Switzerland after 2002; 59 per cent of the students in vocational education), these probabilities are 55.6 and 45.8 per cent respectively. Additionally, the results in Model 4 lead us to support the hypothesis that intermediate and higher educated graduates, in particular, experience less difficulties in labour market integration in countries with a more vocational specific educational system, compared to lower educated entrants (hypothesis 3b). Model 4 furthermore shows a remarkable result: the effect of the vocational education system on youth labour market integration of lower educated entrants shows a positive coefficient, implying that the lowest educated entrants are even disadvantaged by an educational system that puts more emphasis on vocational training.

In Model 1 and Model 5, the hypotheses concerning the influence of employment protection legislation on youth labour market integration are tested. From the first model, we can conclude that young people are more likely to be in temporary employment (B=0.396) or in unemployment (B=0.291), in countries with stricter EPL, as we expected (hypothesis 4a). The probability to have a temporary job or to be unemployed in the country with the least strict EPL (i.e. United Kingdom until 2000; EPL of 0.6) is 70.2 and 56.3 per cent respectively, whereas in the country in which EPL is the most strict (i.e. Portugal until 1996; EPL of 3.85), these probabilities are 77.8 and 63.3 per cent respectively. With regard to the likelihood of unemployment, educational heterogeneity appears to exist, according to Model 5: higher educated entrants in particular have difficulties with finding a job, due to strict protection of the established workforce. This finding is also in line with our expectation (hypothesis 4b).

Finally, in Model 6 all interaction terms are simultaneously estimated, to check the robustness of our findings. Based on the results of this full model, some small differences can be observed, especially concerning the likelihood to be in temporary employment. It appears from Model 6 that the positive interaction between the unemployment rate and intermediate education is no longer significant,
whereas the negative interaction between the unemployment rate and high education turns significant. This implies that the positive effect of the unemployment rate on temporary employment, particularly pertains to lower and intermediate educated people, and that higher educated are more or less protected from this type of employment in an economic recession. This finding is more in line with our hypothesis (H1b) than the findings in Model 2. In addition, the negative interaction between economic globalization and intermediate education turns insignificant in Model 6. Apparently, the negative effect of economic globalization does not differ among people with different educational credentials, when controlling for the other interactions between the macro characteristics and level of education.

**Conclusion and discussion**

School-to-work transitions involve much insecurity in European countries nowadays, although large differences exist between countries. In this paper, we focused on the impact of cyclical, structural and institutional characteristics on labour market integration of young people in Europe. Additionally, we studied to what extent educational differences exist in the impact of these macro characteristics on labour market integration of young people. The results of the empirical analysis suggest that cyclical, structural and institutional characteristics are able to explain cross-national variation in youth labour market integration. With regard to temporary employment, institutional factors (especially the vocational specificity of the educational system) seem to have the biggest impact, whereas with respect to unemployment, particularly cyclical and structural factors seem to be important. In addition, educational heterogeneity in the impact on school-to-work transitions exists, especially with regard to institutional differences between countries.

More specifically, our findings imply that in countries in which the level of unemployment – as indicator for cyclical differences – is higher, labour market integration of young people runs less smoothly. This appears from the fact that in countries experiencing such circumstances, youth more often have a temporary job or are unemployed, at the cost of having a permanent job. Such labour market situations, obviously involve much insecurity and uncertainty. In addition, we have indications for the fact that the highest educated labour market entrants are much less vulnerable for temporary employment during economic recession, compared to lower educated entrants. This leads to support for the idea that employers transfer labour market insecurities mainly to lower skilled employees, which can be more easily submitted to direct supervision and replaced by new workers, compared to higher educated employees. Macro-economic conditions, however, do not seem to have a differential impact on the unemployment chances of people with different educational credentials.

As a structural factor, the impact of economic globalization was investigated, appearing to improve young people’s labour market integration, by reducing the likelihood of flexible employment and unemployment. It was, however, expected that higher levels of economic globalization lead to growing global competition between firms, and increasing insecurity among employers. This, in turn, would make them seek for more flexible employment relationships, especially among lower educated employees. However, our findings hence suggest the opposite result, i.e. that youth labour market integration runs more smoothly in countries which are more globalized. Reflecting on this unexpected finding, however, makes this result perhaps less puzzling. Golsch (2008) argues that economic flows, referring to flows of trade, foreign direct investment and portfolio investment, as well as income payments to foreign nationals, and which constitute one of the two sub indicators of economic globalization, reflect how well a national economy flourishes and how well that economy is integrated in global economic exchange (Golsch, 2008, p.32). Explained this way, economic globalization is hence expected to positively influence youth labour market integration. This idea is further supported
by the findings of Raab et al. (2008), i.e. that globalization creates better opportunities for young adults in the highly flexible British labour market, while in the German insider-outsider labour market young people are disproportionally disadvantaged through the process of globalization. Also De Lange et al. (2012) find a positive effect of the level of economic globalization on the incidence of temporary employment among labour market entrants in the Dutch insider-outsider labour market. These findings suggest that the institutional setting in a country determines the way in which globalization is ‘filtered’ nationally and to which extent it leads to insecurity among labour market entrants in the country concerned. For future research it would hence be recommendable to investigate these macro level interactions between economic globalization and institutional arrangements.

Finally, we studied the role of institutional characteristics in explaining cross-national variation in youth labour market integration. With regard to the educational system, our findings are clear: as education is more vocationally specific, youth labour market integration involves fewer difficulties, both in terms of decreased temporary employment chances and decreased unemployment chances. The link between the knowledge and skills acquired through education and the need of these knowledge and skills in the labour market is strong in countries with more vocationally specific education. Employers have better understandings of the capacities of graduates in such countries, which is rewarded by offering more stable employment contracts already early in the career. It should be added, however, that these benefits of a more vocationally specific educational system only pertain to youth who actually possess such diplomas: in other words, youth with no or low education have increased difficulties with labour market integration in countries in which diplomas provide clear signals to employers about the knowledge and skills of prospective employees.

Also with regard to the strictness of employment protection legislation, cross-national variation in youth labour market integration can be explained. Our findings suggest that in countries in which the distinction between insiders and outsiders in the labour market is more pronounce, i.e. in countries with stricter employment protection legislation, youth experience more difficulties in integrating in the labour market. In these countries jobs of existing employees are more strongly protected, which reduces the possibilities of labour market entrants to find a stable job. Increased levels of temporary employment and unemployment among labour market entrants are hence the result, and particularly among higher educated entrants (as regards the likelihood of unemployment). This is understandable, as highly skilled jobs in particular are located in more regulated labour market segments.

According to the findings in this paper, cross-national variation in youth labour market integration can hence be explained by cyclical, structural and institutional differences between countries. Although it is clear that youth in all European countries face difficulties in labour market integration nowadays, these results implicate that national governments can actually limit the degree to which youth experience insecurities at labour market entry, primarily by reshaping the educational system and/or the existing employment relations between insiders and outsiders in the labour market. To improve youth labour market chances, it would be particularly desirable to strengthen the link between school and work by making the educational system more vocationally specific, and to make employment protection legislation less strict, in order to make the labour market as a whole more flexible, and not only youth labour markets. In addition to taking measures to reduce insecurity among labour market entrants, national governments could also aim at mitigating the negative societal consequences of employment insecurity among youth. For instance, by increasing the possibilities for youth in temporary employment to get a mortgage (with insurance), or by increasing child benefits in case of unemployment or temporary employment among young parents, youth in insecure labour market situations could be socially compensated in order to avoid the creation of a lost generation.
Notes
1. Combinations of country and school-leaver cohort (instead of country) are used as the second level of analysis in order to obtain more statistical power to test our hypotheses and to allow for within country between time variation. Due to convergence problems, we do not present models with three levels of analysis (i.e. individuals [level 1] nested in country and school-leaver cohort [level 2] nested in countries [level 3]).
3. Some authors point out the possible heterogeneous effect of these two sub indicators of EPL on the incidence of temporary employment (see for instance Nunziata & Staffaloni, 2007; Baranowska & Gebel, 2010; Gebel & Giesecke, 2011). It is argued that strict regulation of permanent contracts creates incentives for the use of temporary contracts, while strict regulation of temporary contracts keeps employers from using such contracts. Lowering regulation on temporary employment, conversely, may lead to job creation, substitution of permanent workers by temporary workers, and traps of repeated temporary employment. However, this mainly induces temporary employment among the established workforce, but not necessarily among labour market entrants, in our view. Stricter regulation of temporary contracts would create fewer jobs, which may leave labour market entrants in unemployment instead of in temporary jobs; it may lead to less substitution of permanently employed workers by temporarily employed workers, which emphasizes the distinction between insiders (the established workforce) and outsiders (labour market entrants) in the labour market; and finally, it may lead to fewer repeated temporary jobs among employees, which does not improve labour market entrants’ prospects on a permanent job either. In brief, we expect that stricter EPL on temporary employment, just like EPL on permanent employment, reduces labour market entrants’ integration possibilities. The overall EPL indicator is therefore a powerful and parsimonious measurement of labour market regulations.
4. In 2002, information on field of study was not included in the ESS. A dummy is therefore included indicating if field of information is missing or not, which almost entirely refers to respondents participating in the survey of 2002.
5. \[ P_{\text{temporary employment}} = \frac{e^{0.858+0.316*0}}{e^{0.858+0.316*0} + 1} \] and \[ P_{\text{unemployment}} = \frac{e^{0.254+1.001*0}}{e^{0.254+1.001*0} + 1} \]. Note that these probabilities apply to a situation in which the score on the other variables is 0, i.e. to native men who just left school, with a low level of education in a general field, in countries with low economic globalization, no vocational education and weak EPL.
6. \[ P_{\text{temporary employment}} = \frac{e^{0.858+0.316*1}}{e^{0.858+0.316*1} + 1} \] and \[ P_{\text{unemployment}} = \frac{e^{0.254+1.001*1}}{e^{0.254+1.001*1} + 1} \]. Note again that these probabilities apply to a situation in which the score on the other variables is 0, i.e to native men who just left school, with a low level of education in a general field, in countries with low economic globalization, no vocational education and weak EPL.

References


Figure 1. Labour market situation among labour market entrants by country

Source: ESS 2002-2008
Figure 2. Share of temporary employment and unemployment among labour market entrants by structural, cyclical and institutional characteristics in 29 countries.

Source: ESS 2002-2008
<table>
<thead>
<tr>
<th>Model</th>
<th>Intercept</th>
<th>Duration since labour market entry (in years)</th>
<th>Woman (ref=man)</th>
<th>Non-native (ref=native)</th>
<th>Field of education (ref=general)</th>
<th>Level of education (ref=low)</th>
<th>Unemployment rate</th>
<th>Economic globalization</th>
<th>% Vocational education</th>
<th>EPL</th>
<th>Unemployment*intermediate</th>
<th>Unemployment*high</th>
<th>Globalization*intermediate</th>
<th>Globalization*high</th>
<th>% Vocational education*intermediate</th>
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<th>Variance</th>
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<td>0.148 **</td>
<td>0.185 **</td>
<td>0.207 **</td>
<td>-0.605 ** -0.608 ** -0.572 ** -0.597 ** -0.596 ** -0.581 **</td>
<td>0.316</td>
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<td>0.185 **</td>
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** p<0.01; * p<0.05; ~ p<0.10 (two-sided). Coefficient of 'field of education missing' not shown.

Source: ESS 2002-2008