



**The impact of the institutional setting and policies on the economic situation of youth in insecure labour market positions in EU-28 & Ukraine**

**EXCEPT Working Paper No. 15**

October 2017

**Małgorzata Kłobuszewska**

**Olga Nikolaieva**

**Marta Palczyńska**

**Magda Rokicka**

**Jędrzej Stasiowski**

**Kadri Täht**

**Marge Unt**

[www.except-project.eu](http://www.except-project.eu)  
[twitter.com/except\\_eu](https://twitter.com/except_eu)  
[www.facebook.com/excepteu](https://www.facebook.com/excepteu)

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 649496





**EXCEPT Working Papers** are peer-reviewed outputs from the <http://www.except-project.eu/> project. The series is edited by the project coordinator Dr. Marge Unt and by the project co-coordinator Prof. Michael Gebel. These working papers are intended to meet the European Commission's expected impact from the project:

- i. to advance the knowledge base that underpins the formulation and implementation of relevant policies in Europe with the aim of enhancing the employment of young people and improving the social situation of young people who face labour market insecurities, and
- ii. to engage with relevant communities, stakeholders and practitioners in the research with a view to supporting relevant policies in Europe. Contributions to a dialogue about these results can be made through the project website <http://www.except-project.eu/>, or by following us on twitter @except\_eu.

**To cite this report:**

---

Kłobuszewska, M., Nikolaieva, O., Palczyńska, M., Rokicka, M., Stasiowski, J., Täht, K. & Unt, M. (2017). *The impact of the institutional setting and policies on the economic situation of youth in insecure labour market positions in EU-28 & Ukraine*, EXCEPT Working Papers, WP No 15. Tallinn University, Tallinn. <http://www.except-project.eu/working-papers/>

---

© Authors

ISSN 2504-7159

ISBN 978-9949-29-346-9 (pdf)

**About the authors**

**Małgorzata Kłobuszewska** - <http://www.except-project.eu/our-team/id/89>

**Olga Nikolaieva**- <http://www.except-project.eu/our-team/id/103>

**Marta Palczyńska** - <http://www.except-project.eu/our-team/id/90>

**Magda Rokicka** - <http://www.except-project.eu/our-team/id/88>

**Jędrzej Stasiowski** - <http://www.except-project.eu/our-team/id/91>

**Kadri Täht** - <http://www.except-project.eu/our-team/id/64>

**Marge Unt** - <http://www.except-project.eu/our-team/id/53>

**Acknowledgements**

Authors acknowledge the contributions made by reviewers, language editors, and country experts in the preparation of this report. Special thanks to Caroline Dewilde for constructive comments and suggestions.

This study is based on data from Eurostat: EU-SILC LONGITUDINAL UDB 2013 – version 2 of 2016; Cross-sectional UDB 2014- version 1).

Responsibility for all conclusions drawn from the data lies entirely with the authors.



## List of abbreviations:

<b>ALMP</b>	Active labour market policies
<b>EPL</b>	Employment protection legislation
<b>EU-SILC</b>	EU-Statistics on Income and Living Conditions
<b>GDP</b>	Gross domestic product
<b>HBS</b>	Household Budget Survey
<b>HH</b>	Household
<b>ILO</b>	International Labour Organization
<b>ISCED</b>	International Standard Classification of Education
<b>LM</b>	Labour market
<b>LMP</b>	Labour market policies
<b>OECD</b>	Organisation for Economic Cooperation and Development
<b>PLMP</b>	Passive labour market policies
<b>PPS</b>	Purchasing power standard



## Introduction

Economic deprivation and poverty are often related to what has increasingly been referred to as multiple disadvantage (Kieselbach et al. 2001; Berthoud 2003; McDonald & Marsh 2005). This could be described as a bidirectional relationship, where deprivation during early socialisation leads for example to early school leaving and subsequently to unemployment; whilst unemployment (Cantó-Sanchéz & Mercader-Prats 1999) or labour market (LM) insecurity (Pavis, Platt & Hubbard 2000; Goerne 2011) increases the risk of economic deprivation and poverty. The latter risk is the higher in situations where access to welfare is restricted or non-existent (Saltkjel & Malmberg-Heimonen 2016) and where the family of origin for whatever reason is unable to support their offspring.

Previous research on youth deprivation and poverty in Europe focuses mostly on individual or social origin characteristics (Aassve et al. 2006) such as family structure (Kangas & Palme 2000, Berthoud & Robson 2003) or labour market factors such as unemployment or low pay (Pavis, Platt & Hubbard 2000). Still, a growing number of research points out that in order to better understand the distribution and accumulation of (economic) disadvantage also structural factors - country wealth and economy, unemployment level, labour market institutions and welfare regimes, etc. - should be taken into consideration (Aassve, Billari, Mazzuco, & Ongaro 2002; Aassve, Cottini, & Vitali 2013; Saltkjel and Malmberg-Heimonen 2016). For example, previous studies have shown that lower wealth (measured in GDP) of the country relates to higher poverty and deprivation levels; so does higher unemployment, particularly long-term unemployment rate that associates with increased levels of poverty or deprivation in the country (Assve et al. 2013; Duiella and Turrini 2014). The association between macro-level factors and individual/household level financial situation seems to be, however, not uniform, but varies across countries (e.g. Nolan and Whelan 2010), suggesting a moderating effect of the institutions and policies of the country. For example, Kenworthy (2011) showed a modest negative relationship between the size of social policy expenditure and material deprivation, claiming that the effect varies across countries. Saltkjel & Malmberg-Heimonen (2016) demonstrated in their study that welfare generosity moderated the risk of both material deprivation and income poverty.

The aim of the current analysis is to study the moderating effect of country institutional context – labour market institutions and policies – of the relationship between economic hardship and labour market status among young adults in Europe. Previous studies on the effect of labour market status on economic situation of youth mostly focused on the effect of unemployment. However, studies show that income levels of youth with atypical contracts are often lower than of permanent workers (Gebel 2010). Temporary contracts have also other disadvantages, such as workers with that type of contract might not be eligible for paid sick leave or paid vacation. Thus, even if their wages are



not much lower, they can receive lower job-related benefits. Moreover, temporary workers often receive less work-related training than their counterparts in permanent positions (Booth, Francesconi, & Frank 2002), so their prospects of promotion and professional development are limited. Therefore, not only the effect of labour market exclusion, but also the situation of insecure labour market position is under scrutiny in the current study.

In the first part of the report, we present a short overview of previous studies and findings on the moderating effect of various labour market institutions on the association between labour market exclusion/insecurity and economic situation. In the same chapter, we pose also the hypotheses of the study. In the next step, we discuss the data and variables used for the analysis. This part is followed by the descriptive analysis and findings regarding the youth' poverty and deprivation in Europe. The core part of the analysis of the report is presented in Chapter 4 where there is firstly examined to which extent differences in institutions and policies explain cross-country variation in economic situation of youth. Secondly, the analysis focuses on the moderating effect of various labour market policies and institutions. Given the strong impact that recent economic crisis had on the young population (Rokicka et al. 2015), one section of the report is dedicated on the effect of crisis on the potential moderating effect. In order to consider different situation of unemployed youth and those who have insecure jobs, the situation of youth is analysed within separate models and introducing different moderators in terms labour market institutions and policies.



## Summary and key findings

Previous research has been pointing out that for a better understanding of the distribution and accumulation of (economic) hardship and poverty, next to individual and family/household characteristics also structural factors such as labour market institutions and policies should be considered. As the association between macro-level factors and individual/household level financial situation tends to vary across countries, the current analysis focuses on the moderator effect of various labour market policies and institutions in explaining the existing associations. The main research question of the report is whether and how do the above-mentioned structural factors moderate the previously known negative effect of LM exclusion or insecurity on the economic situation among young adults in Europe. In order to address the posed hypotheses, cross-sectional microdata from EU-Statistics on Income and Living Conditions (EU-SILC) for years 2007, 2010 and 2013 was used.

The report focuses on young adults in the age and situation of labour market career entry (aged 16-29, not in education or training). The report examines both the effect of unemployment status and employment in a temporary job vs. being employed on a regular contract. The economic situation of the youth was explored using both 'objective' and 'subjective' indicators: individual's risk of poverty based on household income threshold (60% of country median of household equivalised disposable income after tax and transfer within a general population); index of material deprivation; and subjective (in)ability to make ends meet (for more details regarding measuring economic situation of youth see also Rokicka & Kłobuszewska 2016; Hofäcker & Neumann 2016). Variability in the labour market policies shaping the impact of employment status on economic situation was operationalized via the level of active and passive labour market policies in the country; and labour market institutions via the level of employment protection legislation and unionization in country. The effect of the economic crisis was analysed by the comparison of three time points: pre-crisis period of 2007, crisis period of 2010, and post-crisis period of 2013. For the analysis, the multilevel modelling with cross-level interactions and random intercepts was applied.

### Descriptive findings

- Youth excluded from the labour market are more likely to live in economically deprived households, and this holds for all EU-28 countries.
- The relative gap in economic situation (objective and subjective) between employed and unemployed youth is larger in countries with lower incidence of unemployment (for example Germany). In the Southern Europe, or countries with worse macroeconomic situation both young employees and unemployed seemed to be equally dissatisfied with their financial situation (for example in Greece).



- Being employed is not always translated into more favourable economic situation: almost 30% of working youth in Romania lived in severely deprived households, and 20% of them were at the risk of poverty.
- Mobility out of poverty among young people with unemployment experience was relatively low – only approx. one out of five managed to escape poverty during the period of observation.
- During the economic crisis, the economic and financial situation of young employees worsened in majority of EU countries, while unemployed were affected only in some countries. Moreover, the economic situation of youth from majority of New Member States (both employed and unemployed) improved since 2006 despite the economic crisis.

### The mediating effect of labour market policies on LM exclusion

- Households with young unemployed had substantially higher probability of poverty and exclusion from social life;
- Higher contribution to passive labour market policies reduced the negative effect of youth unemployment on their financial situation.
- There existed a mediating effect of expenditures on active labour market policies on the effect of unemployment on financial situation – the higher the country expenditure on ALMP, the less did LM excluded youth suffer from financial hardship.
- Also households with working youth tended to benefit from labour market policies, both the active and the passive. The findings on ‘risk-buffering’ effect of labour market policies on youth economic situation were robust when tested on sub-sample of youth living without parents.
- The hypothesis-testing of this section could be summarized as follows:

Hypothesis	Expected effect
H1: Country’s higher contribution to passive labour market policies reduces the negative effect of LM exclusion on youth financial situation.	confirmed
H2: Country’s higher contribution to active labour market policies reduces the negative effect of LM exclusion on youth financial situation	confirmed

### The mediating effect of industrial relations on labour market insecurity

- Households of young temporary workers showed higher probability of poverty and exclusion from social life due to financial reasons compared to household of young workers holding a permanent contract.



## No.15 – The impact of the institutional setting and policies on the economic situation of youth in insecure labour market positions in EU-28 & Ukraine

- The findings showed no clear moderating effect of EPL on the financial situation of young temporary workers and their households. However, the expected effect was confirmed in the sub-sample where youth living with parents were excluded from the analysis.
- Regarding trade union density, a modest moderating effect on the effect of youth temporary employment on the subjective financial situation of their HH and their own financial situation was found, suggesting that higher trade union density in the country buffers the negative consequences of temporary employment on youth' financial situation.
- The hypothesis-testing of this section could be summarized as follows:

Hypothesis	Expected effect
H3a: The stricter employment protection legislation of the country magnifies the negative effect of youth labour market exclusion on poverty/deprivation.	Not confirmed (confirmed for sub-sample)
H3b: The discrepancy between the employment protection legislation level of regular and temporary contracts exacerbates the negative effect of youth' labour market insecurity increasing their poverty and deprivation risk compared to those in secure labour market position.	Not confirmed
H4: Higher unionization level of the country reduces the negative effect of youth labour market insecurity on poverty/deprivation.	Confirmed (moderate effect)

### The effect of financial crisis

- According to the current analysis, on average, economic crisis did not change significantly the gap between youth employed with permanent contract and youth being unemployed or working with temporary contract with regard to their financial situation.
- The significant risk-buffering effect of PLMP did not change during the crisis - there was not significant difference between year 2007, 2010 and 2013 in the effectiveness of this policy;
- The effect of ALMP did change during the crisis - ALMP seemed to be more effective, as the same increase in average expenditures on this kind of policy were associated with significantly lower risk of economic difficulties in crisis year compared to other years.



- The non-significant moderating effect of employment protection of regular contracts on the economic situation of young temporary workers remained unchanged also in the situation of financial crisis.
- The findings suggest that during the crisis, unions represented interests of temporary workers better – contrary to our expectations, during financial crisis trade unions showed even stronger positive effect in terms of improving economic situation of young temporary workers.
- The hypothesis-testing of this section could be summarized as follows:

Hypothesis	Expected effect for	
	Unemployment	Temporary contract
H5: The negative effect of unemployment or insecure employment situation on youth poverty and deprivation is expected to exacerbate during the situation of economic crisis.	Rejected	Rejected
H6: The poverty/deprivation reducing effect of PLMP policies (interaction between PLMP and unemployment) become even stronger in the situation of the financial crisis.	Rejected	n/a
H7: The poverty/deprivation reducing effect of ALMP policies (interaction between ALMP and unemployment) become even stronger in the situation of the financial crisis	Confirmed	n/a
H8a: The poverty/deprivation increasing effect of stricter EPL of the country (interaction between EPL and unemployment) is expected to grow even stronger in the situation of the financial crisis	n/a	Rejected
H9: The poverty/deprivation-reducing effect of higher unionization of the country (interaction between unionization and temporary contracts) is expected to weaken in the situation of the financial crisis	n/a	Rejected (significant positive effect found instead)



## Chapter 1: employment situation and economic situation of youth – the moderating role of labour market institutions and policies

A growing number of research points out that in order to better understand the distribution and accumulation of (economic) disadvantage, next to individual, also structural factors should be taken into account. So far, the focus has often stayed at the effect of macro-economic characteristics such as income levels, income distribution, etc. of the country (Aassve, Billari, Mazzuco, & Ongaro 2002; Aassve, Cottini, & Vitali 2013; Saltkjel & Malmberg-Heimonen 2016), whereas less is known about the role of institutions and policies, which is the focus of the current analysis. For example, lower wealth (measured in GDP) of the country is related to higher poverty and deprivation levels; so does higher unemployment, particularly long-term unemployment rate that associates with increased levels of poverty or deprivation in the country (Assve et al. 2013; Duiella and Turrini 2014). Other studies have found statistical evidence that the higher the income level in country (for example measured by Gross National Disposable Income per Head), the lower the perceived individual economic stress; or the higher the income inequality level (Gini), the higher the reported income stress level of the respondents (Whelan & Maitre 2013). In the same analysis, Whelan & Maitre (2013) show and argue that neither national affluence nor income inequality per se appear to play a significant role in explaining economic stress, irrespective of the manner in which this might be mediated (in their analysis, the mediator was household material deprivation). They rather find a uniform effect of deprivation across countries, drawing the attention to the moderating role of other macro attributes on individual characteristics' effect on income stress. In addition, Nolan & Whelan (2010) suggest in their study on individual level financial situation a moderating effect of the institutions and policies of the country.

### Labour market policies

One of the central 'equalizing effects' on the dispersion of income pointed out in previous studies is the generosity of a country's welfare system (Bäckman 2009; Brady 2005; Kenworthy 1999; Korpi & Palme 1998). Kenworthy (2011) showed a modest negative relationship between the size of general social policy expenditure and material deprivation, however claiming that the effect varies across countries. In the study carried out by Saltkjel & Malmberg-Heimonen (2016), the risk of both material deprivation and income poverty was moderated by welfare generosity. In their study, Gallie and Paugam (2000) point out as main measures against employment related exclusion and precariousness passive (e.g. unemployment benefits) and active labour



market arrangements (e.g. training). Given the findings of the previous studies, also here the differentiation between active and passive labour market policies is done.

Contributory benefits, such as unemployment benefits are generally designed to uphold accustomed standards of living and provide various degrees of income security. Respectively, the more LM excluded are eligible for any type (insurance or means-tested) benefits, the lower should be their risk of poverty. Also, the level of financial compensation is claimed to be directly affecting the situation of the unemployed where higher levels of compensation should create more similar conditions than being at work and lower significantly the stigma associated with unemployment. Thus, it could be expected that:

**H1: Country's higher contribution to passive labour market policies reduces the expected negative effect of LM exclusion on youth financial situation.**

Since 1990s, there has been a general shift in Europe from a passive to an active labour market policy (Barbier 2005). Main assumptions behind this shift (for more details see Malmberg-Heimonen 2005) were: a) self-sufficiency in relation to welfare benefits is a precondition for individual welfare and for the welfare of the state (Goul Andersen & Jensen 2002); b) welfare dependency in the longer-term promotes poverty, inequality and long-term unemployment and that unemployment benefits can have a disincentive effect on job search and re-employment (Torfing 1999); c) generous replacement rates increase the level of minimum wages, which in turn decreases an individual's financial incentive for re-employment (Torfing 1999; OECD 2004, 2005). The latter resulted in various activation measures, such as setting incentives for participation in active policy measures or individual activation plans based on assessment of needs and agreements upon LM integration of the excluded youth. The fundamental objective of most activation policies has been to prevent unemployment to become long-term and thereby to lead into social exclusion. The World Bank (2009d) argues that well-designed training programmes in more than 90 countries have had a significant impact on the livelihoods of displaced workers. In the long term, active labour market policies should aim to develop an education and training system that enhances the productive potential and employability of the workforce. We may also assume that in short run the poverty gap between employed and unemployed is smaller in countries with higher productive potential and employability of the whole workforce due to more substantial investments into active labour market policies, including young unemployed. Therefore, it is expected that:

**H2: Country's higher contribution to active labour market policies reduces the negative effect of LM exclusion on youth financial situation.**

As labour market policies are mainly aimed at people excluded from the labour market (unemployed), their (moderating) effect in the impact of insecure labour market positions on financial situation of youth is not that clear. Also, previous research has related the income inequality and material deprivation to labour market and welfare policies (Esping-Andersen 1990; Palier 2010), more particularly to income transfers,



much less has been labour market policies and welfare related to working poverty issue (Crettaz 2011; Fraser et al. 2011).

Table 1: Summary of hypotheses 1-2 and expected effect in the models

Hypothesis	Indicator	Expected effect (sign) in regression model of the interaction effect of macro indicator and ...	
		Unemployment status	temporary contract
H1: Country's higher contribution to passive labour market policies reduces the negative effect of LM exclusion on youth financial situation.	PLMP	-	n/a
H2: Country's higher contribution to active labour market policies reduces the negative effect of LM exclusion on youth financial situation	ALMP	-	n/a

## Industrial relations

Another set of institutional characteristics potentially shaping the effect of youth LM status on the deprivation and poverty risk is related to the industrial relations of the country, more precisely the employment regulation and unionization (Blank et al. 2006; Kalleberg 2007; Brady et al. 2013). As comparative institutions literature indicates, power relations between collective actors fundamentally shape inequalities (Brady 2009; Tilly 1998) by reducing the likelihood of poverty and mitigating the consequences in case of poverty (DiPrete 2002).

While the majority of previous poverty research tends to focus on the role of unemployment, the more typical poor, are often the working poor (Blank et al. 2006; Newman 1999). Low-wage employment is, on the one hand, especially in European context, systematically related to fixed-term or temporary jobs (Blank et al. 2006; Cormier & Craypo 2000). Many European countries have pursued a strategy of flexibilization at the margins of their labour market, which resulted in a high degree of dualization (Emmenegger et al. 2012). Strong employment protection legislation is claimed to create a labour market situation of secure insiders and insecure outsiders with lower chances of quick reemployment. It reduces labour market turnover and results in low number of external vacancies (Gangl 2003), and makes entering labour market hard especially for youth. Deregulation of labour market entrance has tried to reduce the costs connected to hiring young people by introducing forms of employment contracts with reduced levels of protection (student jobs, project work, fixed-term



contracts, etc.), or reducing the overall level of dismissal protection. On the other hand, European countries have been characterized by dualization of labour market in terms of employment protection: many young people have become business cycle buffers with their fixed-term contracts that are not renewed in the case of downturn (Crettaz 2011; Emmenegger et al. 2012). Thus, the level of employment protection legislation should matter especially for young people who are in insecure labour market position, making their entry into secure and respectively higher income positions harder. This translates into following set of hypotheses:

**H3a: The stricter employment protection legislation of the country magnifies the negative effect of youth labour market insecurity on poverty/deprivation.**

We may expect that the negative effects of stricter protection of regular contracts are further enforced in countries, which have deregulated the restrictions on the use of temporary contracts. This situation is described as a partial or targeted deregulation (Barbieri 2009). While labor market 'insiders' such as workers with permanent contracts are well protected, a deregulation of temporary contracts may result in cycles of non-employment and temporary employment for labor market entrants causing higher risk of poverty/deprivation for youth experiencing unemployment or insecure job. Therefore, it is expected that:

**H3b: A discrepancy between the employment protection legislation level of regular and temporary contracts exacerbates the negative effect of youth' labour market insecurity increasing their poverty and deprivation risk compared to those in secure labour market position.**

Other characteristics closely linked to low-wage employment is the level of unionization, more precisely the status of not being unionized (for review see Crettaz 2013). Previous studies indicate that in countries with high unionization, inequality and poverty tend to be lower and wages are higher. Thus, the level of unionization can be considered as another important labour market institution explaining cross-country differences in working poverty (Brady et al. 2010). Previous studies show that unions raise wages (Kalleberg et al. 1981; Cornfield & Fletcher 2001) and such wage advantage can lift many households out of poverty. In addition, unionization has been shown to be related to various benefits for low-wage earners (e.g. regulation of working conditions). Previous studies also demonstrate a spillover effect of unionization for non-union workers (Zuberi 2006) such as raise in earnings or better regulation of contracts to all workers in sector (Bernhardt et al. 2003).

One of the arguments against a direct association between unionization and reduction of poverty has been the fact that unions tend to encourage the general increase of generosity in social welfare (Korpi 1983; Brady 2009). In their study of working poverty across 18 countries, Brady et al. (2010) find the initial negative effect of unionization weaker in case of controlling for welfare state expenditures. Still, another study by Brady et al. (2013) shows that in the case of the U.S., the effect of unionization are larger than the effects of social policies, confirming the importance of unionization in



the process of poverty reduction (especially when it comes to working poor). This translates into the following hypothesis:

**H4: Higher unionization level of the country reduces the negative effect of youth labour market insecurity on poverty/deprivation.**

*Table 2: Summary of hypotheses 3-4 and expected effect in the models*

		Expected effect (sign) in regression model of the interaction effect of macro indicator and ...	
Hypothesis	Indicator	Unemployment status	temporary contract
H3a: The stricter employment protection legislation of the country magnifies the negative effect of youth labour market exclusion on poverty/deprivation.	EPL-reg	n/a	+
H3b: The discrepancy between the employment protection legislation level of regular and temporary contracts exacerbates the negative effect of youth' labour market insecurity increasing their poverty and deprivation risk compared to those in secure labour market position.	EPL-reg/EPL-temp	n/a	+
H4: Higher unionization level of the country reduces the negative effect of youth labour market insecurity on poverty/deprivation.	Union density	n/a	-

### The effect of the crisis

Previous research has shown that the financial crisis caused deterioration of the labour market situation of youth in many EU countries. In comparison to general population, during the economic recession, in many countries for young people the risk of unemployment on the one hand and the risk of poverty on the other hand raised significantly (Bell & Blanchflower 2011; Aassve et al. 2013; Rokicka and Kłobuszewska 2016). Given the magnitude of the crisis on the one hand – it affected in one way or the other the majority of European economies – and it's structural impact on the other hand – especially people in more vulnerable labour market position such as youth entering labour market was affected – it is expected that:



**H5: The negative effect of unemployment or insecure employment situation on youth poverty and deprivation is expected to exacerbate during the situation of economic crisis.**

On the other hand, as already discussed above, the negative effect of the crisis on youth economic vulnerability may differ across countries, depending on the existing institutions and policies (Aassve et al. 2013) and the way they function.

Regarding the labour market policies, it is plausible to expect that in the crisis situation, the importance of the benefits provided by PLMP grows regarding the poverty and deprivation of the youth. As additional resources such as family (financial) support, savings, etc. may also be negatively affected by the crisis situation, unemployment benefits as 'stable' income gains respectively more importance regarding youth financial situation and stability. Therefore, it is expected that:

**H6: The poverty/deprivation-reducing effect of PLMP policies (interaction between PLMP and unemployment status) become even stronger in the situation of the financial crisis**

The same association could be expected regarding the ALMP due to the potential financial incentives and labour market participation opportunities that they provide for the youth that are often excluded from the LM excluded and respectively in the increased risk of facing poverty an/on deprivation. Thus, it is plausible to expect:

**H7: The poverty/deprivation-reducing effect of ALMP policies (interaction between ALMP and unemployment) become even stronger in the situation of the financial crisis**

Regarding the EPL of the country, it could be expected that in the crisis situation, the discrepancy between labour market insiders and outsiders grows even more, translating into a following hypothesis:

**H8a: The poverty/deprivation-increasing effect of stricter EPL of the country (interaction between EPL and temporary contracts) is expected to grow even stronger in the situation of the financial crisis**

The strength of the unions is expected also to 'react' to the crisis – weaker unions become weaker and the stronger unions focus more on the protection of the labour market insiders (union members), creating a stronger polarization between labour market insiders and outsiders on the one hand and reducing the spill-over effect to the nonunionized workers. This translates to the following hypothesis:

**H9: The poverty/deprivation-reducing effect of higher unionization of the country (interaction between unionization and temporary contracts) is expected to weaken in the situation of the financial crisis**



## No.15 – The impact of the institutional setting and policies on the economic situation of youth in insecure labour market positions in EU-28 & Ukraine

Table 3: Summary of hypotheses 5-9 and expected effect in the models

		Expected effect (sign) in regression model of the interaction effect of crisis* macro indicator*	
Hypothesis	Indicator	Unemployment status	Temporary contract
H5: The negative effect of unemployment or insecure employment situation on youth poverty and deprivation is expected to exacerbate during the situation of economic crisis.		+	+
H6: The poverty/deprivation reducing effect of PLMP policies (interaction between PLMP and unemployment) become even stronger in the situation of the financial crisis.	PLMP	-	n/a
H7: The poverty/deprivation reducing effect of ALMP policies (interaction between ALMP and unemployment) become even stronger in the situation of the financial crisis	ALMP	-	n/a
H8a: The poverty/deprivation increasing effect of stricter EPL of the country (interaction between EPL and unemployment) is expected to grow even stronger in the situation of the financial crisis	EPL	n/a	+
H9: The poverty/deprivation-reducing effect of higher unionization of the country (interaction between unionization and temporary contracts) is expected to weaken in the situation of the financial crisis	Union density	n/a	+



## Chapter 2: Data and methods

### Data and sample

To address our hypotheses, we use cross-sectional microdata from EU-Statistics on Income and Living Conditions (EU-SILC) for years 2007, 2010 and 2013. This data set is the most appropriate for our analysis as it contains key information about income, living conditions, as well as the questions about labour market status and household composition. Thus, it is relevant data source to determine risk of poverty and other economic consequences of labour market exclusion of youth in EU countries.

For the purposes of this analysis, we use only data for young population. Our sample is restricted to young people aged 16-29, who are not in education or training. Young people who were in the army were also excluded from analysis (despite year 2007 for which this information is not available). Due to problems with missing data for macro level indicators for specific countries or years, the number of countries included in analysis varies from 19 to 28.

### Variables

#### Dependent variables

There are numerous measures for economic consequences of labour market exclusion. To provide checks for reliability and robustness of our results, the analysis was based on two distinct types of indicators. First, there is used two 'objective' indicators of respondent's household economic situation and his/her own economic situation – risk of poverty and indicator for exclusion from social life for financial reasons. Second, there has been included one 'subjective' measure, which is based on respondents' feelings and opinions about their personal economic situation and the economic situation of their household.

#### Risk of poverty

The measure of risk of poverty is based on the specific income threshold, which is calculated separately for each of the countries included in the analysis. The threshold is computed as 60% of a country's median household equivalised disposable income after tax and transfer within a general population.<sup>1</sup> The risk of poverty is defined as the binary variable, which is equal to 1 when the respondent's household's equivalised disposable income (after taxes and transfers) is below the specified threshold.

This measure refers to income reference period, which is for most of the EU countries a fixed 12-month period (the previous calendar or tax year). For United Kingdom,

---

<sup>1</sup> The 60% of the national median equivalised disposable income is a standard measure provided by Eurostat. There are also other operationalizations of risk-of-poverty measure e.g. 50% of national median income.



income reference period is the current year, and for Ireland it is collected for the last twelve months.

The measure of risk of poverty, although easily defined, is very sensitive to country differences and the year-to-year changes. Being poor in wealthier country means something different than being poor in a less economically developed one. In addition, such a definition of poverty provides questionable results in times of economic boom or sharp recession when the median income itself can change considerably (Jenkins et al. 2012). Therefore, the comparison of poverty rates across different countries should be treated with caution.

### **Exclusion from social life for the financial reasons**

The second objective measure was based on the preliminary analysis of the EU-SILC 2013 set of questions about a respondent's material deprivation. Index of material deprivation can be considered as another alternative and complementary measure in monitoring poverty, being for example less sensitive than poverty risk indicator to short-term changes of financial situation, depicting more permanent situation of the household (Atkinson et al. 2002). Thus, it allows better between country comparisons, being homogeneously defined in all EU-28 countries.

In the EU-SILC data, respondent assessments were recorded about their ability to:

- replace worn-out clothes by some new (not second-hand) ones (PD020),
- possess two pairs of properly fitting shoes (including a pair of all-weather shoes – PD030),
- get-together with friends/family (relatives) for a drink/meal at least once a month (PD050),
- regularly participate in a leisure activity (PD060),
- spend a small amount of money each week on yourself (PD070),
- have an internet connection for personal use at home (PD080).

The possible answers were 1: yes, 2: no cannot afford it, 3: No – other reason. The overall reliability measure for the above-mentioned set of 6 variables was 0.66 (Cronbach's Alpha). As our area of interest is material deprivation, all the variables were recoded into dummy variables indicating if a respondent cannot afford an item. To check if the given set of material deprivation indicators represents a unidimensional structure, the exploratory factor analysis (based on the matrix of tetrachoric correlations suitable for dummy variables) was performed. The analysis revealed a solution, which could be interpreted as one or at most two-factor solution. All the indicators are measuring the same concept – a latent variable, which might be interpreted as a level of material deprivation. However, further analysis and oblique rotation (if underlying factors are correlated) of the factor analysis solution indicated that there are two separate dimensions of material deprivation measured by the given set of indicators. The first dimension, represented by PD020 and PD030 indicates severe material



deprivation, while the second dimension (PD050, PD060, PD070) appeals more to the risk of exclusion from social life for the financial reasons. The last variable, PD080, had higher loadings for the second factor, but relatively high loading for the first factor. Thus, it was treated as an incoherent part of the solution.

The above-mentioned results of the analysis were a source of inspiration to construct an indicator of exclusion from social life for the financial reasons. The measure was constructed as a binary variable based on the above mentioned 3 items (PD050, PD060, PD070) which indicate respondent's financial barriers to get-together with friends, regularly participate in a leisure activities or bear small expenses.

If a respondent was not able to do *at least one of these three actions* because of the financial reasons, we treated him/her as excluded from social life, and a variable takes value 1. In other cases, the variable is equal to zero.

### Inability to make ends meet

This subjective measure is based on the following question from EU-SILC questionnaire: *Thinking now of your household's total income, from all sources and from all household members, would you say that your household is able to make ends meet?* This measure refers to the current situation of the household, but not the situation of respondent himself/herself. The respondent has a few options to choose, from great difficulty to very easily. For our analysis, we constructed binary variable, which is equal to 1 if household can make ends meet with difficulty or great difficulty. In other cases, variable takes value 0.

Table 4: Descriptive statistics for dependent variables

Variable	2007		2010		2013	
	mean	st. dev.	mean	st. dev.	mean	st. dev.
Risk of poverty	0.16	0.37	0.17	0.38	0.18	0.39
Ends meet with difficulty	0.30	0.46	0.36	0.48	0.38	0.49
Exclusion from social life	–	–	–	–	0.30	0.46

Source: Own calculation based on EU-SILC 2007, 2010 and 2013, data not weighted

### Labour market status

The focus of our analysis is the labour market status of the young person. We analyse the situation of the unemployed youth vs. the employed and, separately, the situation of the youth with a temporary job vs. youth employed on a regular contract. Because our main dependent variable, which is risk-of-poverty, refers to income reference period, we decided to describe labour market status using variables, which also refer to income reference period, whenever it is possible.



## Unemployment

Information about unemployment is based on the questions about number of months spent in unemployment during income reference period. If a person was unemployed for at least seven months, we assign her/him an unemployed person status. If a person was working (in different kinds of employment, also self-employment) for at least 7 months during income reference period, we treat her/him as an employed. This definition is parallel to the one applied to monthly information gathered in the EU-SILC: while somebody spent more than two weeks in a certain labour market status, this status is reported as his/her main economic activity. The constructed binary variable is equal to 0 for unemployed, and 1 for employed respondent.

## Temporary job

Information about type of contract refers to the current situation and it refers only to an employee (but not people in self-employment). The variable takes value 1 if person has a temporary job or a work contract of limited duration. If a person has permanent job or contract of unlimited duration, the variable takes value 0.

## Individual and household level controls

The selection of control variables included in our analysis was based on the results of descriptive analysis presented by Rokicka and Kłobuszewska (2016). Since two of three of our dependent variables are related to the household level, we need to control the composition of the household and the situation on the labour market of its members (which influences economic situation of the whole household). This way we can get as precise results for young people as possible in our data set. Thus, the following control variables were included in the analysis: age groups (16-23 and 24-29), sex, educational attainment, immigration status, living arrangements (living with parents, children, partner/spouse in the same household) and household work intensity status<sup>2</sup>.

Table 5: Descriptive statistics for individual and household level variables

Variable	2007		2010		2013	
	Mean	st. dev.	mean	st. dev.	mean	st. dev.
<b>Unemployed</b>	0.14	0.35	0.19	0.40	0.24	0.42
<b>Temporary work</b>	0.25	0.44	0.25	0.44	0.27	0.44
<b>Age group (16-23)</b>	0.51	0.50	0.51	0.50	0.50	0.50
<b>Education: lower secondary (ISCED 0-2)</b>	0.23	0.42	0.24	0.42	0.20	0.40

<sup>2</sup> The household work intensity status shows the overall labour market situation of household members. According to Eurostat definition, this measure is based on total number of months that all working-age household members have worked during the income reference period divided by the total number of months the same household members theoretically could have worked in the same period.



<b>Education: tertiary (ISCED 5-6)</b>	0.20	0.40	0.22	0.41	0.25	0.43
<b>Sex: female</b>	0.47	0.50	0.46	0.50	0.47	0.50
<b>Immigrant</b>	0.07	0.26	0.07	0.26	0.07	0.26
<b>Live with parent</b>	0.62	0.48	0.64	0.48	0.65	0.48
<b>Live with child</b>	0.20	0.40	0.19	0.39	0.18	0.38
<b>Live with partner</b>	0.31	0.46	0.29	0.45	0.28	0.45
<b>HH work intensity (min. 0 max. 4)</b>	3.15	0.83	2.99	0.83	2.93	0.84

Source: Own calculation based on EU-SILC 2007, 2010 and 2013, data not weighted

### Macro-level indicators

To address the issue of the moderating impact of policies, institutions and country economic situation we use following macro-level indicators (for statistics see table A in annex):

- GPD per capita, thousands of Euro PPS, source: Eurostat

The GPD per capita indicator was derived from the Eurostat database. It is computed in Euro in purchasing power standard as gross domestic product divided by midyear population. As GDP might be considered as a measure of a country's economic performance, divided by size of country population, it approximates the average standard of living. In other words, it reflects the economic performance of the country and could be a proxy for the wealth of the society. The poverty level and subjective feeling of economic difficulties among society depend on a countries' economic performance. Thus GDP per capita should be controlled in the analysis. Moreover, controlling for GDP per capita allows us to use nominal values of policy indicators (expenditures on LMP).

- Expenditures on active labour market policies per person wanting to work, source: Eurostat

Eurostat defines labour market policies as „Public interventions in the labour market aimed at reaching its efficient functioning and correcting disequilibria and which can be distinguished from other general employment policy interventions in that they act selectively to favour particular groups in the labour market.“<sup>3</sup> It is a very broad category of policy activities, which includes:

1. LMP Services – including information services, individual case management and administration

<sup>3</sup>„Labour market policy statistics. Methodology 2013“  
<http://ec.europa.eu/eurostat/documents/3859598/5935673/KS-GQ-13-002-EN.PDF>



2. LMP measures – training, employment incentives, sheltered and supported employment, direct job creation, start-up incentives
3. LMP supports – out – of – work income maintenance, early retirement

The scope of our indicator was narrowed to active labour market policies, which might have an impact on the economic situation of people wanting to work. The following categories of LMP measures were included:

1. Training – institutional training, workplace training, alternate training and special support for apprenticeship.
2. Employment incentives – recruitment incentives, employment maintenance incentives, job rotation and job sharing
3. Sheltered and supported employment and rehabilitation
4. Direct job creation
5. Start-up incentives

The indicator measures inputs as spending on labour market policies in thousands of Euro (PPS) divided by potential needs (or scale of the problem) which is defined as the number of **people wanting to work**. The last category refers not only to unemployed people, but also to “inactive people who do not qualify as unemployed because they are either not actively seeking work or not immediately available for work but who would nevertheless like to work”<sup>4</sup>.

- Expenditures on passive labour market policies per person wanting to work, source: Eurostat

Passive labour market policies were defined as out-of-work income maintenance and support, which includes:

1. Unemployment benefits, including unemployment insurances, assistance
2. Partial unemployment benefits
3. Part-time unemployment benefits
4. Redundancy compensation
5. Bankruptcy compensation

The indicator was defined as public spending on passive labour market policies (out-of-work income maintenance and support) in thousands of Euro (PPS) divided by number of people wanting to work.

- Trade union density rate, source: ILO

Trade union density rate is the number of union members who are employees as a percentage of the total number of employees. The indicator is provided by the International Labour Office and might be used to describe relative trade union strength. However, it should be remembered that high trade union density is not necessarily a symptom of their strong bargaining power. Trade union’s impact on the political and

---

<sup>4</sup>[http://ec.europa.eu/eurostat/statistics-explained/index.php?title=Archive:Labour\\_market\\_policy\\_expenditure&oldid=53928](http://ec.europa.eu/eurostat/statistics-explained/index.php?title=Archive:Labour_market_policy_expenditure&oldid=53928)



policy making process depends on the legal, historical and institutional context. A good example are French trade unions – despite rather low level unionisation, collective bargaining plays there a significant role in regulating terms and conditions of employment and the coverage of workers by collective agreements is high. While in many countries of the former Soviet Union the situation is quite different – high trade union density does not translate into their strong position<sup>5</sup>.

- Strictness of employment protection for temporary contracts, source: OECD
- Strictness of employment protection for regular contracts, source: OECD

To address hypothesis H3b (The discrepancy between the employment protection legislation level of regular and temporary contracts exacerbates the negative effect of youth' labour market insecurity increasing their poverty and deprivation risk compared to those in secure labour market position.) we constructed a variable, which is an EPL for regular contracts to an EPL for temporary contracts ratio. This measure shows the differences in the level of protection of the two types of contracts (temporary and permanent). To verify hypothesis H3a we use only EPL for regular contracts.

OECD provides both measures (EPL for regular and temporary contracts). They are based on sets of indicators, which reflect “procedures and costs involved in dismissing individuals or groups of workers and the procedures involved in hiring workers on fixed-term or temporary work agency contracts”<sup>6</sup>. For preparation of above-mentioned measures, each country Employment Protection Legislation is described by 21 sub-indicators, each having scale and corresponding numerical strictness scores<sup>7</sup>. Strictness of employment measures for a given country are computed as weighted averages of their scores for the defined sets of indicators.

Strictness of employment protection for regular contracts – quantifies regulations associated with fixed-term contract employment. It is based on the following indicators:

1. Procedural inconveniences (notification procedures – from oral statement to compulsory notification of a third party, delay to start a notice),
2. Notice and severance pay for non-fault individual dismissals,
3. Difficulty of dismissal (definition of unfair dismissal, length of trial period, compensation following unfair dismissal (months' pay), possibility of reinstatement following unfair dismissal, maximum time for a claim of unfair dismissal)
4. Additional provisions for collective dismissals (EPC): definition of collective dismissal, additional notification requirements, additional delays involved, other special costs to employers.

Strictness of employment protection for temporary contracts is based on the following indicators:

<sup>5</sup> Social Dialogue Indicators. International Statistical Inquiry 2008-09. ILO 2011 <http://laborsta.ilo.org/applv8/data/TUM/TUD%20and%20CBC%20Technical%20Brief.pdf>

<sup>6</sup> <http://www.oecd.org/employment/emp/oecdindicatorsofemploymentprotection.htm>

<sup>7</sup> For further details: <http://www.oecd.org/els/emp/EPL-Methodology.pdf>

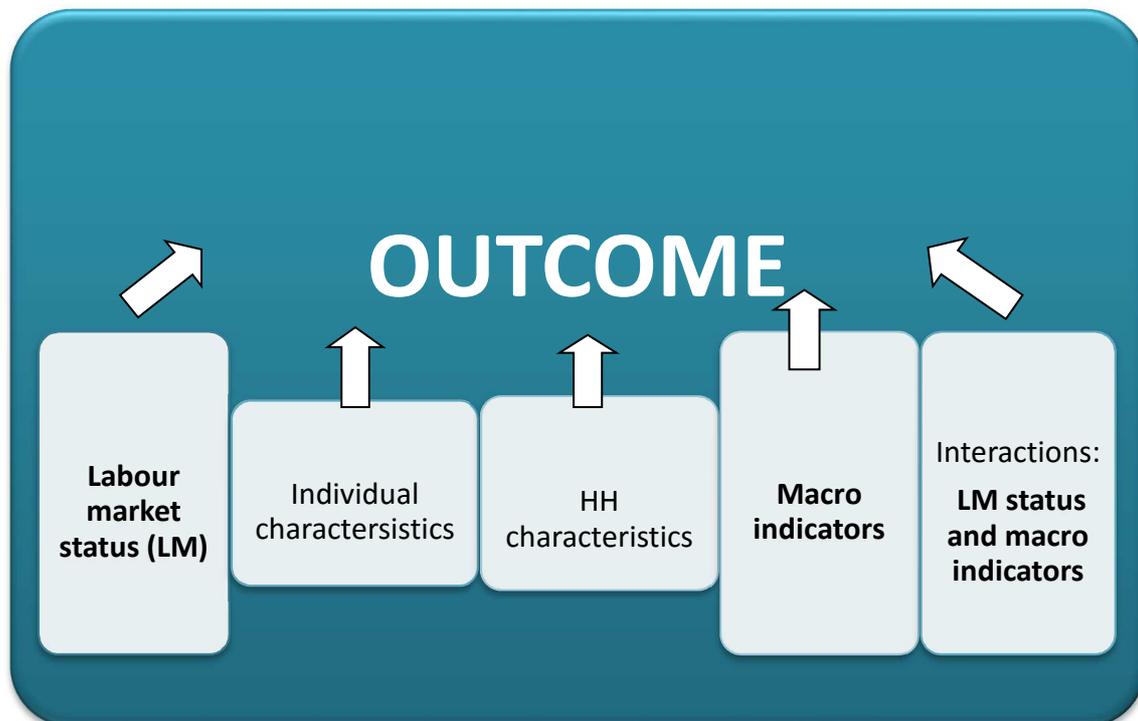


1. Fixed term contracts: valid cases for use of fixed-term contracts, maximum number of successive contracts, maximum cumulated duration of successive fixed-term contracts,
2. Temporary work agency employment: types of work for which is legal, restrictions on number of renewals, maximum cumulated duration of temporary work agency assignments, the necessity of authorisation and reporting for temporary work agency, equal treatment of regular workers and agency workers.

### Method of analysis

To address the issue of impact of the labour market status on economic situation of youth while taking into account cross-country variation and moderating effect of country policies and labour market settings we apply multilevel modelling with cross-level interactions and random intercept (Snijders & Bosker, 1999). The first level of the analysis is based on variables providing information about individuals and their households, the second level is defined by countries characterized in terms of their economic situation and labour market policy settings (see Figure 1).

Figure 1: Specification of the analysis



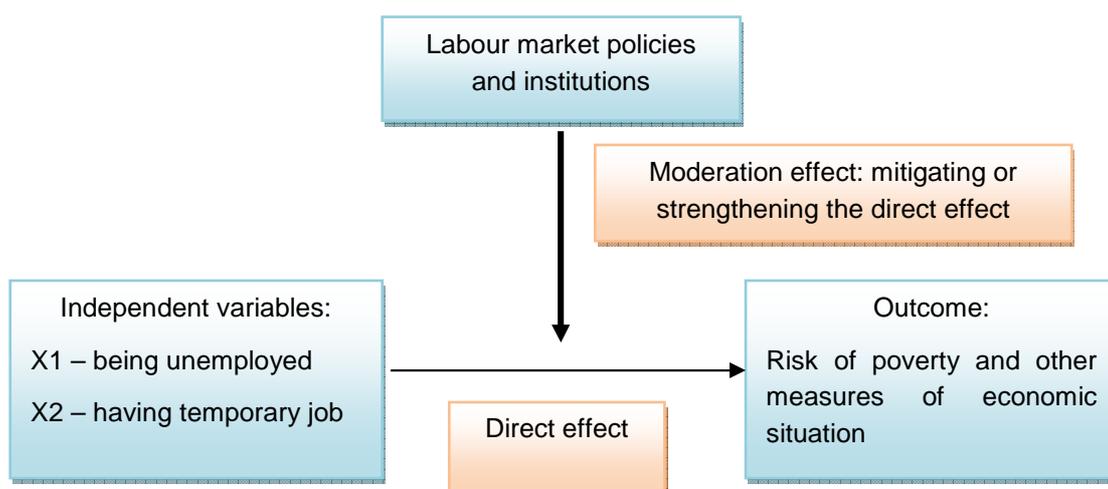
Source: Own illustration.

The random intercept model assumes that predicted outcomes will vary between the level 2 entities - countries. Technically, it is possible, because we allow models' intercepts to change between countries. This kind of modelling allows controlling for



individual level factors and country level characteristics, which might affect individual economic situation. Estimations with random intercept help to depict to which extent differences between countries in terms of their policies explain differences in economic situation of youth. Moreover, cross-level interactions help us to investigate the potential moderating effect that labour market institutions and policies have on the effect of youth labour market positions on their financial situation (see also Figure 2).

Figure 2: Moderation effect of labour market policies and institutions



Source: Own illustration.

In order to investigate different dimensions of economic consequences of labour market exclusion and their determinants, we build a set of models based on data from EU-SILC 2013. The results are presented in chapter 4. In order to address the issue of the effectiveness of policies before, during and after the financial crisis, in chapter 5 we use pooled data for years 2007, 2010 and 2013. Using interactions of labour market status, given macro indicator and years: 2007 and 2013 we check, which policies or institutions are significantly associated with a decrease/increase in the financial distress in these years comparing to year of the crisis for youth in insecure labour market positions.



## Chapter 3: Economic situation of youth in insecure labour market position in EU-28 – descriptive analysis

This chapter provides a descriptive background for an econometrical analysis conducted in subsequent parts of the report. It summarises a descriptive analysis presented in a separate working paper: “The short-term economic consequences of insecure labour market positions in EU-28” by Rokicka and Kłobuszewska (2016). The working paper is based on the analytical work done on EU-SILC pooled data for the year 2013 and 2014, so depicts the most recent, up to date situation. Due to a wide range of issues covered by this working paper, here are presented only findings closely related to the economic situation of youth with different labour market situations. First, the indicator of ‘objective’ financial situation – risk of poverty – is compared by employment status. As next, it is shown how the material situation and subjective economic situation differ between employed and unemployed, and between those with secure and insecure labour market position<sup>8</sup>. The descriptive analysis also portrays the dynamics of poverty by employment status, and shows to which extent unemployed are trapped in long-term poverty. The final part describes how the economic situation of youth in insecure labour market position changed after the recent economic downturn.

### Risk of poverty

Although there are several potential sources of household income, in general the wage contribution is the highest. Therefore, we can expect that labour market status is associated with risk of poverty. Rokicka and Kłobuszewska, (2016) in their country specific binary models found out that in 24 out of 28 countries except Sweden, Netherlands, France and Belgium unemployed youth have more chances to be at risk of poverty than their working counterparts do. Taking into account the diversity of country specific policies, and labour market institutions this result comes as some surprise. One should keep in mind that income data used for calculating the poverty threshold accounts for any transfers received by the household. Therefore, unemployment benefits are included in the overall household income, but as we can see, they still do not compensate for lost salaries. A very plausible explanation for this might be the eligibility of unemployment benefits. In the majority of countries, unemployment benefits are only available for people with previous employment records, so youth entering the labour market might not be eligible for this kind of support.

---

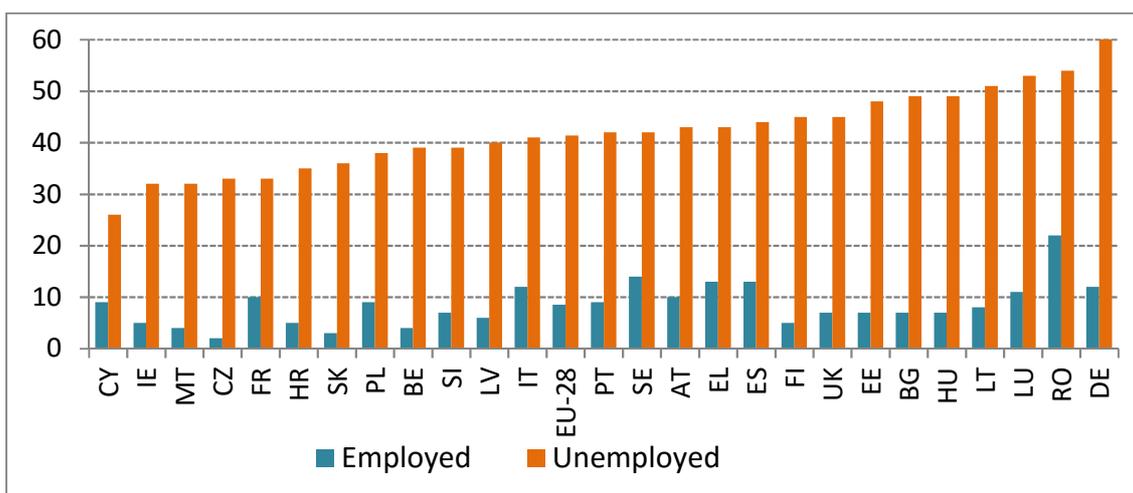
<sup>8</sup> Please note that next to a different year of reference, also the operationalization of different dimensions of poverty and deprivation is not always the same as described in the section of Data and methods, and analysed in the multi-level analysis.



### Labour market status

Poverty rates for young unemployed ranged from 63% in Germany to 26% in Cyprus. In the countries with the highest youth unemployment (Greece, Spain, Croatia) the poverty rates among unemployed were lower and ranged from 35% to 44%. A comparison of these two indicators for unemployment and poverty on the country level allows for formulating the thesis, that in countries where youth unemployment is rare it has more detrimental effect on socio-economic situation of youth than in countries where the problem of youth unemployment is widespread. One of the possible explanations might be selection into employment, which depends largely on the country's macroeconomic situation. In countries with low employment prospects, and poor economy large part of school leavers remain unemployed, regardless their education, parental backgrounds, etc. Conversely, in countries with large number of vacancies, and good employment prospects, the unemployed might be stigmatised and on the fringes of society.

Figure 3: Poverty rates among unemployed and employed youth (2013/2014)



Source: Own calculations based on EU-SILC cross-sectional UDB 2014-1. Notes: Information for DK and NL omitted due to the small sample size.

### Type of employment

One of the dimensions of job insecurity is related to a temporary job contracts and part-time employment. However, the occurrence of this form of labour market participation is relatively rare in certain countries (for examples, less than 5% of young employees in Romania have temporary job contract, while part-time employment is almost not present in twelve countries from the Central-Eastern Europe). Therefore, country comparative analysis is limited only to few countries.



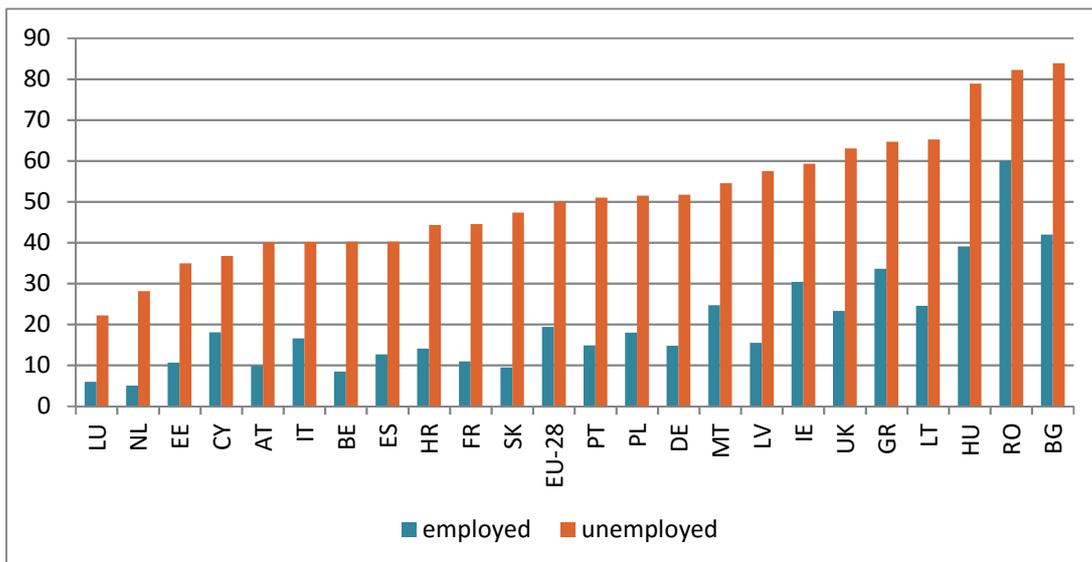
## Youth material deprivation in EU-28

To reflect the material deprivation of young person, we used an index based on the personal interview, not a household one. This indicator depicts youth exclusion from social life, and it is precisely explained in the previous chapter. If respondent was not able to do at least one of three actions such as: get-together with friends, regularly participate in a leisure activities or bear small expenses because of the financial reasons, we treated him/her as excluded from a social life, and a variable takes value 1. In other cases, the variable is equal to zero.

### Labour market status

Among working youth from EU-28, around 19% still claim having inadequate resources to participate in social life, however this share varies across countries, ranging from 5% in Luxembourg or Netherlands to more than 40% in Romania and Bulgaria. As expected, this indicator is much higher among unemployed: in the EU-28 on average 50% of unemployed perceive themselves as excluded from social life. However, the material deprivation of unemployed youth varies greatly across EU-28, being the highest in Bulgaria, Romania, and Hungary, where around 80% of young unemployed people are financially deprived. The largest gap in this respect between unemployed and employed youth is in Slovakia, Netherlands and Belgium, while in the EU-28 young unemployed are three time more likely to be excluded from social life than their working counterparts.

Figure 4: Young people excluded from social life by employment status (2013 %)



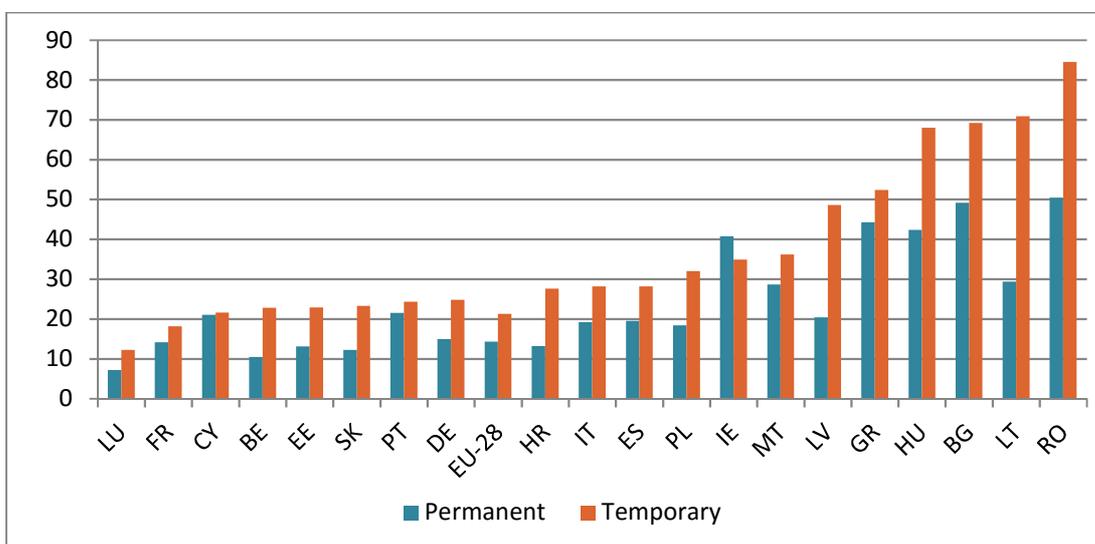
Source: Own calculations based on EU-SILC. Notes: Information for unemployed from FI, SE omitted due to small sample size; NL, LU: results based on 20-49 observations



### Type of employment

In general, young people on temporary contracts from the EU-28 express the higher level of exclusion from social activities due to financial reasons than workers on permanent contracts. More than 60% of young temporary workers in Romania, Lithuania, Bulgaria and Hungary perceive themselves as excluded from social life, while the lowest share of socially excluded (around 10%) is among those with permanent job in Luxembourg, and Belgium. Although country variation remain remarkable, the gap between workers with different forms of employment is much smaller than this observed between working and unemployed youth.

Figure 5: Young people excluded from social life by type of contract (2013 %)



Source: Own calculations based on EU-SILC. Notes: Information for temporary workers from AT, FI, NL, SE, UK omitted due to small sample size; CY, EE, LT, LV, LU, MT, RO: results based on 20-49 observations

### Subjective socio-economic situation of youth in EU-28

In general, young people from the EU-28 express a higher level of financial dissatisfaction than prime age workers (except Estonia and Latvia). Moreover, in the majority of EU-28, youth perceived their financial situation more pessimistically than the objective indicators would indicate. The largest gap between objective and perceived income poverty is in Greece, Cyprus and Croatia. Yet in Scandinavian countries, Luxembourg and Germany young people who according to poverty thresholds are at risk of poverty still are able to make ends meet, and do not report financial distress.

### Labour market status

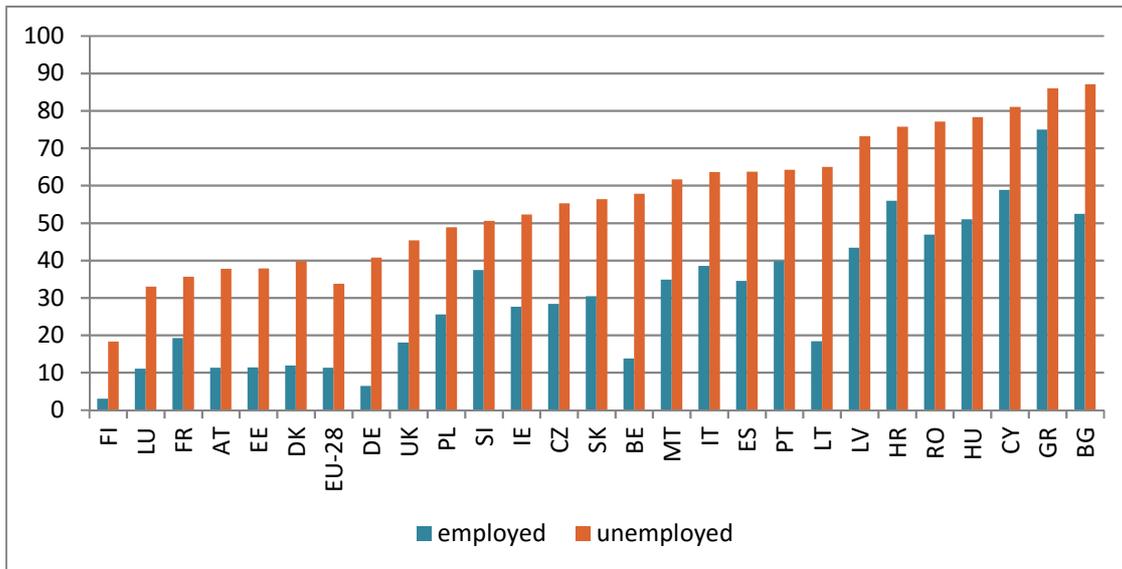
Unemployed young people tend to report more financial difficulty than their working counterparts (34% versus 11%) do, however still country differences in this respect are significant. As showed by Rokicka and Kłobuszewska (2016) the gap in perceived



## No.15 – The impact of the institutional setting and policies on the economic situation of youth in insecure labour market positions in EU-28 & Ukraine

financial situation between unemployed and employed youth is narrower in countries where the overall financial dissatisfaction is higher: for example in Greece there is only 11 percentage points difference, while the gap is much larger in Finland, Luxembourg, and Germany.

Figure 6: Subjective financial situation by employment status (2013/2014, %)



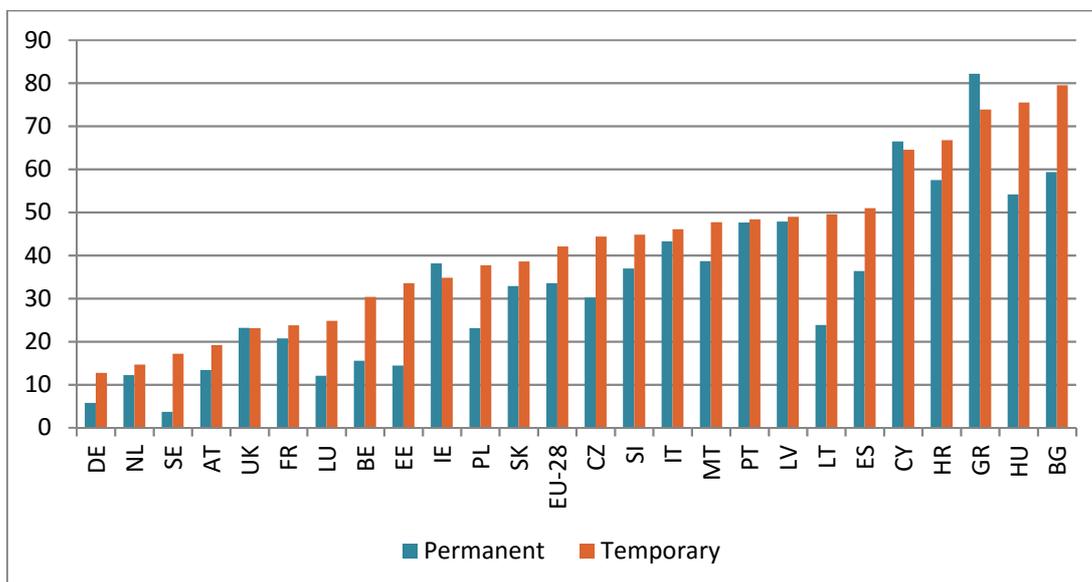
Source: Own calculations based on EU-SILC. Notes: Information for unemployed workers from NL, SE omitted due to small sample size; AT, DE, DK, FI, and LU: 20-49 observations.

### Type of employment

We also compare the subjective financial situation between employees with different type of contracts. As already discussed in Rokicka et al. (2015), there might be several reasons for accepting temporary contracts, which could also be associated with subjective perception of this type of employment. While more than 60% of youth in the EU-28 report having this type of contract involuntarily, in countries like Estonia and Austria the main reasons for temporary employment are a probationary period and preferences toward this type of contract. In general, those with temporary jobs more often live in the households which find it difficult to make ends meet than their counterparts with permanent job (EU-average: 42% versus 34%). However, the differences in this respect are very small, and in some countries (Greece, Cyprus, Ireland, the UK), the opposite is true.

Similar to the previous descriptive findings the worst financial situation of labour market disadvantaged youth is reported in Bulgaria, Greece and Hungary. Romania due to small popularity of temporary job contracts, and limited number of observation was excluded from the above graph and comparisons.

Figure 7: Subjective financial situation by employment type (2013 %)

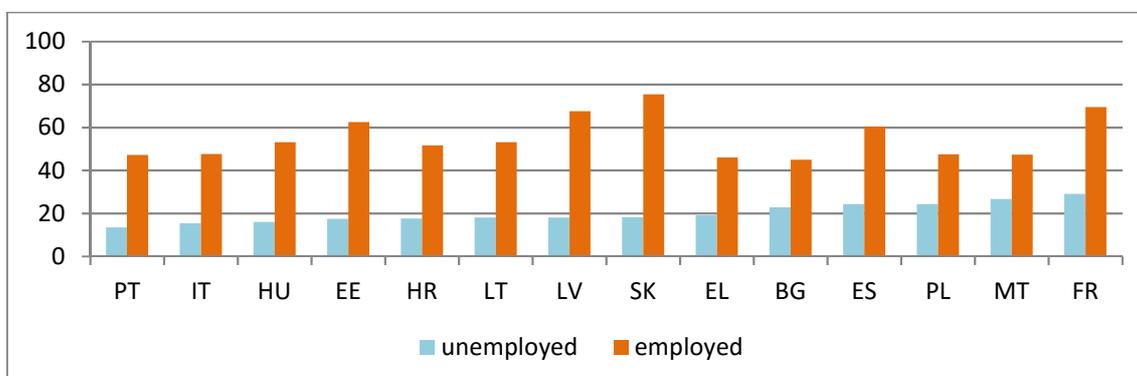


Source: Own calculations based on EU-SILC. Notes: Information for temporary workers from DKL, FI, and RO omitted due to small sample size; AT, EE, LV, LT, NL, and SE, UK: 20-49 observations.

## Poverty dynamics

One of the important aspects of disadvantageous financial and economic situation is the degree of mobility into and out of such unfavourable economic conditions. Youth poverty can be just a transitional stage for a young person, or can be associated with chronic or intergenerational poverty. The next analysis is based on average yearly (between 2010 and 2013) out of poverty transition rates for two groups of young people: employed and unemployed, who were at the risk of poverty in the previous years. It is based on the EU-SILC longitudinal data, however due to relatively small sample size, and sample restriction to age and unemployment status cohort, only the results for countries where there are more than 50 observations will be shown.

Figure 8: Out of poverty yearly transition rates by employment status (2010-2013)



Source: Own calculations Notes: AT, BE, CY, CZ, DK, FI, IE, LU, NL, SE, SI, UK- omitted due to sample size.



The results reveal that, on average, there is much lower mobility out of poverty among unemployed than among employed. Unemployed youth from France, Malta and Poland have the highest chance to escape poverty: 29% of unemployed living in poverty in France in the given year moves to higher income group, above poverty line, in the subsequent year (this is an average over 2010 and 2013). While only 13% of poor unemployed young people from Portugal escaped poverty (15% in Italy and 16% in Hungary). We do not control here for the changes of household composition, which might be crucial for our poverty indicator measured on the household's level, showing just the raw effects.

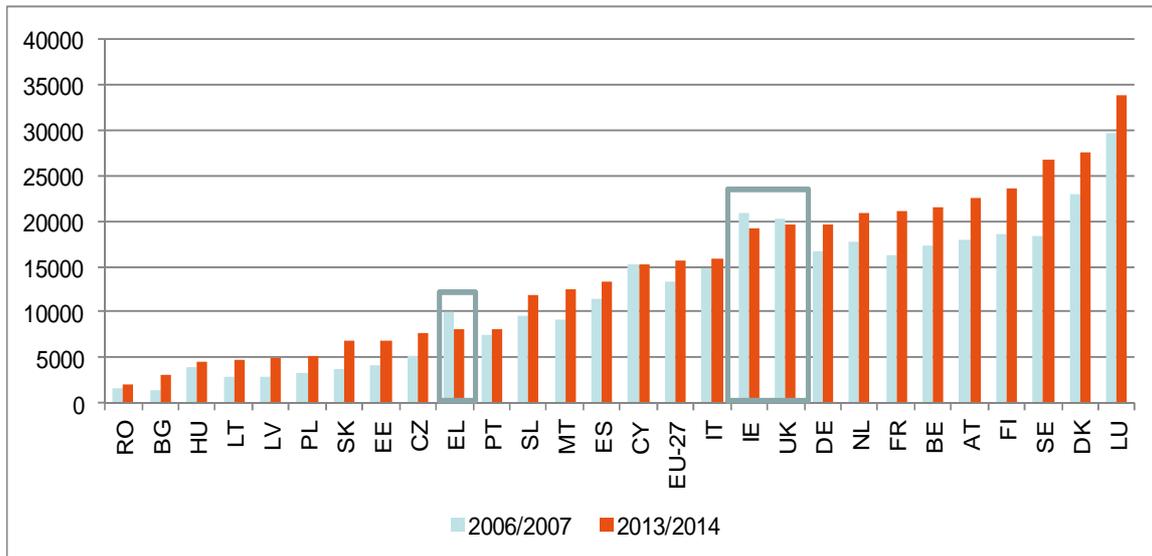
### Recent economic crisis: economic situation of youth

Although the process of adjustment and recovery from an economic downturn took different paths and forms in the EU-28, the focus here is on the disparities between the most recent situation and the one before the crisis.

The main basis for calculation of poverty threshold and risk of poverty is the median of equivalised income at the country level. Only in three European countries (Greece, Ireland and the UK), this threshold is lower now than it used to be before the crisis. Therefore, in those countries some households with low income, which previously were considered as at risk of poverty, might be above the poverty threshold now, while maintaining the exact income. Conversely, in countries where the average income increased, those just above the poverty threshold could be now consider as at risk of poverty, maintain the same level of financial revenues.

In nearly all EU-28 countries (except: Netherlands, Finland, the UK, Poland, and Bulgaria) young people are far more likely to be at risk of poverty now than they used to be before the crisis. The largest increase in youth poverty rates was reported for Southern Europe, but also for Denmark, Hungary and Slovenia.

Figure 9: Median equivalised net income before and after the crisis (in Euro)



Source: Based on: Eurostat [ilc\_di03], extracted on 14/11/2016. No data for Croatia in 2006/2007.

### Labour market status

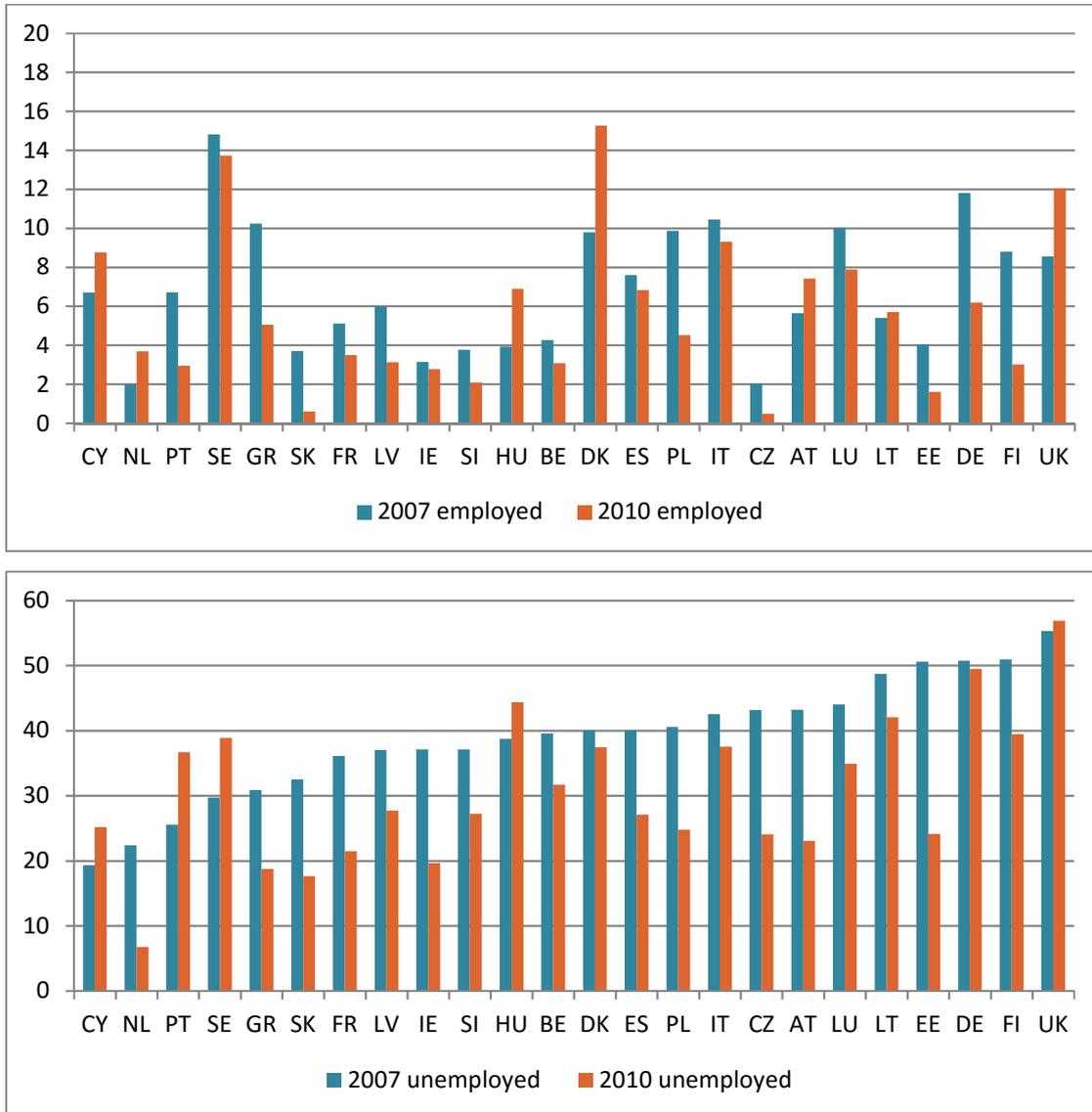
We also use the anchored poverty threshold constructed according to the Eurostat methodological guidelines. This indicator is defined as the percentage of the population whose equivalised disposable income is below the ‘at-risk-of-poverty threshold’ calculated in the standard way for the base year, 2007, and then adjusted for inflation.

The anchored poverty threshold, which keeps the poverty threshold fixed in real terms as in 2007 controls the effects of a poverty threshold fluctuations due to economic shocks, and sudden changes of economic situation and income distributions. In 2007, more than a half of the unemployed youth was at risk of poverty or social exclusion in three EU Member States: the UK (55%), Finland (51%) and Germany (51%). This share, applying the anchored threshold, increased between 2007 and 2010 in five EU-28 countries: Cyprus, Sweden, Portugal, the UK, and Hungary. During the crisis the share of employed at risk of poverty increased only in Cyprus, Hungary, Denmark and the UK, comparing to the 2007.



## No.15 – The impact of the institutional setting and policies on the economic situation of youth in insecure labour market positions in EU-28 & Ukraine

Figure 10: Young employed and unemployed in poverty (% 2007, 2010, anchored threshold)



Source: Own calculations based on EU-SILC.

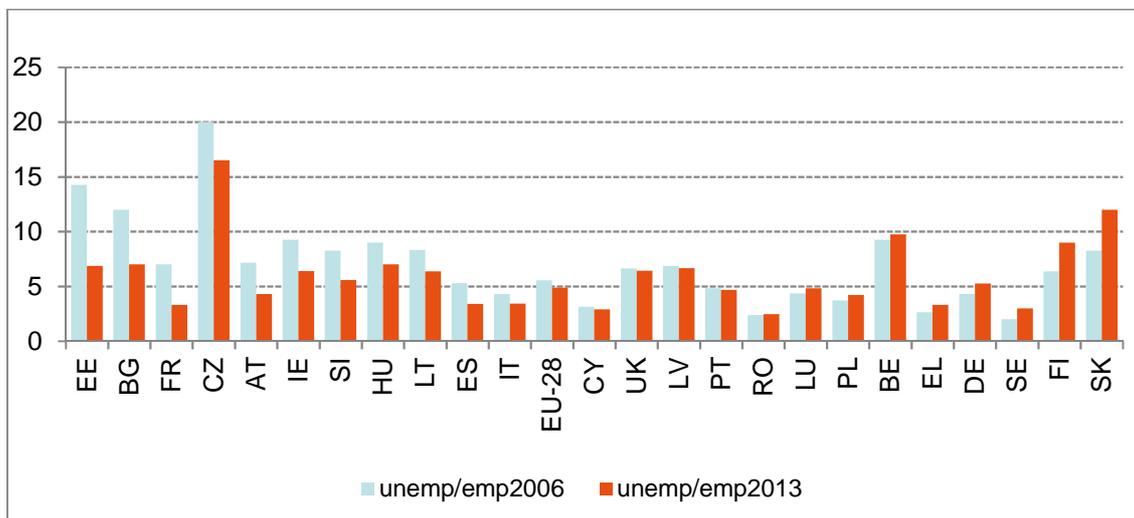
Slightly different picture emerge using a yearly poverty threshold, and comparing situation before and after the crisis. Nearly in all EU countries the poverty rates among employed youth increased between 2007 and 2013, the poverty rates among unemployed increased only in 13 countries. However still in countries like: Belgium, Sweden, Finland, Germany, Greece, and Slovak Republic young unemployed people were more severely hit by the economic crisis than their working counterparts were.

As a result the gap in the financial disadvantage between young unemployed and employed slightly diminished after the crisis (on average for EU-28), remained



unchanged in seven EU-28 countries (Cyprus, the United Kingdom, Latvia, Portugal, Romania, Luxembourg and Poland) and increased in the rest.

Figure 11: Ratio of unemployed/employed at risk of poverty before and after the crisis



Source: From Rokicka, Kłobuszewska, (2016). Notes: DK, NL are omitted due to sample size.

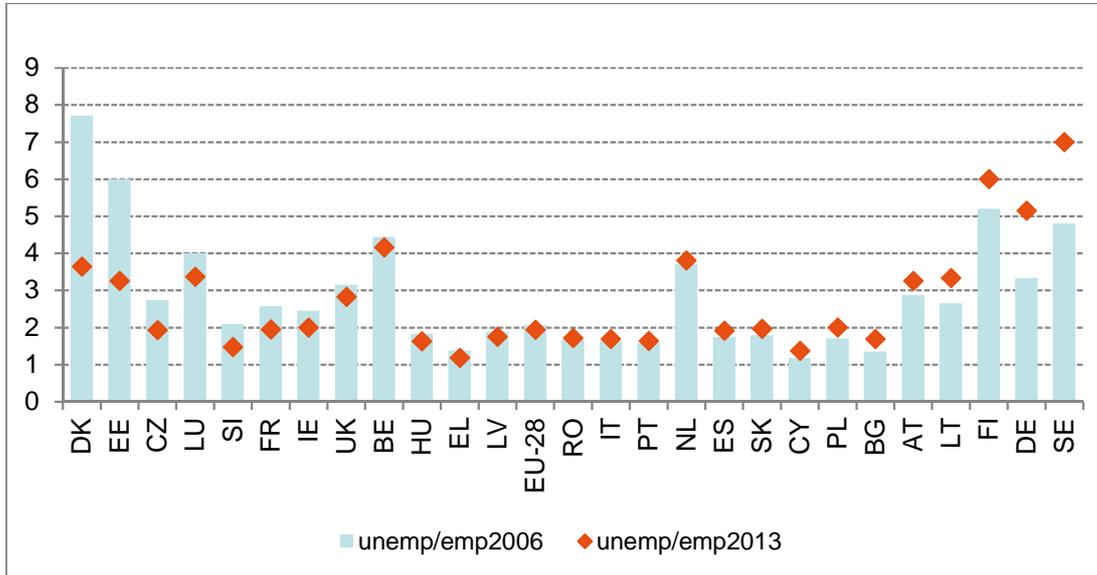
Similar trend is reported in relation to the subjective financial situation. In majorities of EU-28 countries, in 2013/2014 youth more often expressed the feeling that the household income is not sufficient to make ends meet than in 2006/2007 (except: Poland, Finland and Sweden). While before the crisis on average 28% was concerned, recently this share reached the level of 35% (EU-28). More importantly, the gap between opinions across different countries got wider recently, with a further increase of financial dissatisfaction in Greece, and the fall in Sweden or Finland.

Again, the impact of crisis on unemployed was not homogenous across the EU. Unemployed youth from the EU became more dissatisfied with their financial situation after the crisis than working youth (an increase of 6 p.p among unemployed versus 4 p.p among employed). However again the pattern differs across countries: the situation of young unemployed improved, according to their declarations, in six countries: Poland, Denmark, Finland, Sweden, Czech Republic and Estonia, while in the majority of EU reverse has happened.



## No.15 – The impact of the institutional setting and policies on the economic situation of youth in insecure labour market positions in EU-28 & Ukraine

Figure 12: Ratio of unemployed/ employed living in households with difficulties to make ends meet before and after the crisis

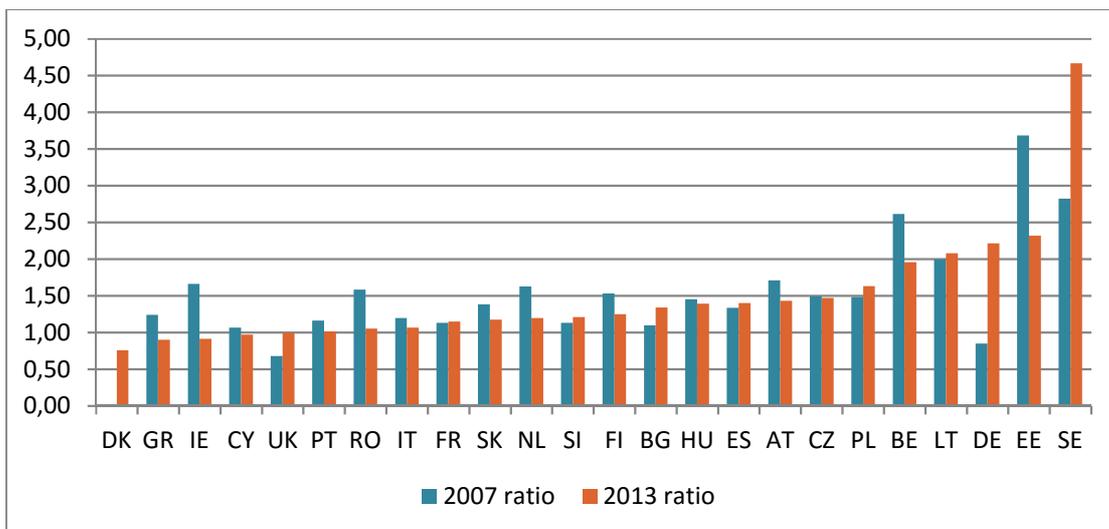


Source: From Rokicka, Kłobuszewska, (2016). Notes: Information for SE, NL LU, DK omitted due to small sample size; FI, CZ: 20-49 observations.

### Type of employment

We also checked how the crisis effected the financial situation of those with different types of employment. We decided to look at the subjective measure on household level - difficulties to make ends meet, as another indicator at individual level – exclusion from social life was available only for 2013.

Figure 13: Ratio of temporary/permanent living in households with difficulties to make ends meet before and after the crisis.



Source: Own calculations based on EU-SILC.



As shown on the graphs the effect of crisis was not homogenous across the EU-28. In the UK, Bulgaria, Spain, Poland, Germany and Sweden the relative situation of temporary workers versus those with permanent contracts worsened. Interestingly in Poland for both types of contracts, the subjective financial situation has improved between 2007 and 2013, however it improved to a larger extent among permanent workers than others. The opposite situation is observed in Spain, where between 2007 and 2013, a higher share of employees reported living in financially deprived households than in 2007. However, the changes were larger for those with temporary job contracts than for permanent workers.

## Summary

To sum up the descriptive findings, it could be concluded that **youth excluded from the labour market more often live in economically deprived households and this holds for all EU-28 countries**. This adds to the already existing economic disadvantage of young versus prime age population.

**The relative gap in economic situation**, deplored by risk of poverty and indicators of subjective financial situation, **between employed and unemployed youth is larger in countries with lower incidence of unemployment** (for example Germany), while in Southern Europe, or countries with worse macroeconomic situation, both young employees and unemployed seem to be equally dissatisfied with their financial situation (for example in Greece). However, we will test this relationship further in the following chapter controlling for some macro indicators, and when outcomes are presented not only for raw differences between unemployed or employed (i.e. controlling for other individual and household characteristics).

One has to keep in mind that **being employed not always translates into more favourable economic situation**. Still almost 30% of working youth in Romania live in severely deprived households, and 20% of them are at risk of poverty. There is a large country variation in this respect among EU-28.

What is even more problematic is a very **low mobility out of poverty of young people with unemployment episodes** – hardly 20% of them escape poverty, while this share is much higher among young employees in general.

The comparison of the statistics before and after the crisis reveals that **the impact of the crisis was not homogenous across the EU**. Economic and financial situation of young employees get worsen in majority of countries, while unemployed were affected only in several EU countries. Moreover economic situation of youth from majority of New Member States (both employed and unemployed) improved since 2006 despite the recent global economic crisis.

One of the drawbacks of such short-term analysis is an inability to identify causal relationships. It cannot be said that unemployment of a young person has a direct impact on his/her risk of living in poor or materially deprived household. Very plausible



explanation might be that a young person, who comes from economically disadvantaged background, has lower chances to participate in labour market, so as a result is unemployed. Therefore, more advanced analytical methods are used in the chapter 4, which allow for reporting associations of different labour market status and material situation under different macro economic and labour market characteristics.

## Chapter 3.2: Financial and economic situation of youth in Ukraine

Separate analysis for Ukraine has been conducted since Ukraine is not presented in the EU-SILC data and the data available is not perfectly coherent with the EU-SILC. The descriptive analysis for Ukraine is based on the Household Budget Survey (HBS) collected quarterly by the State Statistics Service. The survey contains information on individuals and households regarding income, expenditure and labour market status of the respondents. Among the available variables we use those, which have the closest meaning to EU-28 analysis. We use 2013/2014 yearly data for the current situation, 2006/2007 for comparison with the pre-crisis period and 2010 for anchored poverty line (similar to EU-28 estimations). The analysis is focused on youth aged 16-30, which is slightly different compared to the 16-29 group for the EU-28 analysis. Starting from 2014, the HBS reports age in specific categories (e.g. 16-17, 18-20, 21-25, 26-30, etc.) which restrict us to looking at 16-30 years old.

In order to analyse the financial and economic situation of youth, two outcomes are used – the risk of poverty and the subjective self-perceived estimate of the level of household income. Like in the EU-28 analysis, the **poverty risk** is an indicator, which equals 1 for individuals living in the households with the equivalised disposable income after tax and transfers below 60% of the median income measured within a general population. The poverty rate is the share of people exposed to the risk of poverty.

The variable for the subjective socio-economic situation is constructed from the **self-perceived estimate of household income**, and is measured at the household level. The scale of answers consists of four categories:

1. Income was enough and made savings
2. Income was enough, but not for savings
3. Constantly felt limited in necessities, except for food
4. Was not able to provide for adequate food.

As exposed to poverty we consider households, who provided answers 3 and 4 to this question. This measure differs from the ability to make ends meet used in EU-28 analysis. While the original question is not available, we consider the proposed variable to be a good replacement for the purpose of the research.

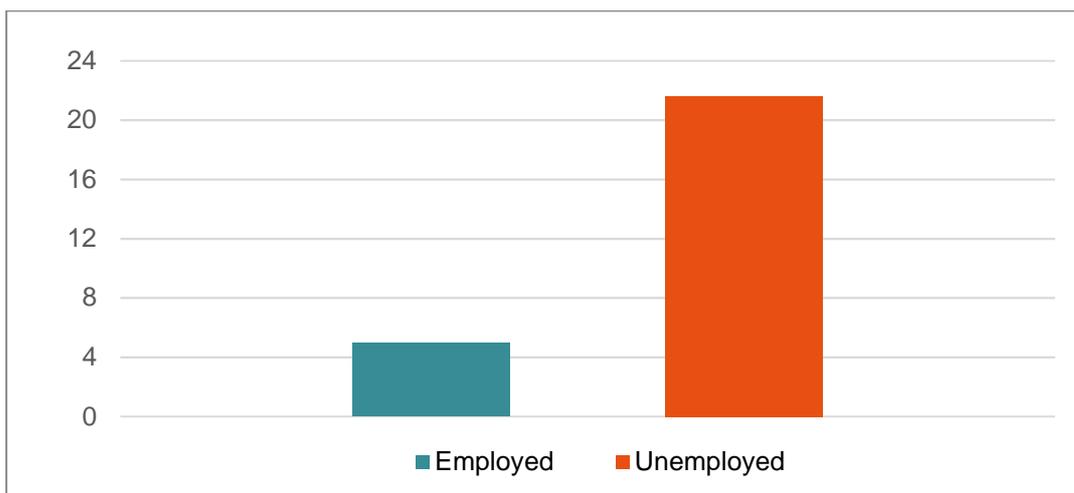


Regarding insecure labour market situation, only employment status is considered. Temporary contracts and limited working hours are beyond the scope of this section since they are not available in the HBS data.

### Poverty risk

First, we compare youth aged 16-30 to the prime age population aged 31-60. The data suggest that youth indeed is at a higher risk of being in poverty, though the statistically significant difference is around 1 p.p. – 10% vs. 9%. We have to acknowledge that the poverty rate based on the equivalised disposable income for both the employed and the unemployed youth in Ukraine is lower, compared to the EU-28. For instance, the poverty rate among the unemployed youth in Ukraine constitutes 22% in 2013/2014, while in the EU-28 analysis the corresponding rate varies from 63% in Germany to 26% in Cyprus (see Risk of Poverty section in Chapter 3). We attribute the low relative poverty rate in Ukraine to the low level of the median income and do not consider this as an evidence that the population is better off in absolute terms compared to EU-28.

Figure 14: Poverty rates among unemployed and employed youth in Ukraine (2013/2014)



Source: Own calculations based on Ukrainian Household Budget Survey 2014.

Note: weighted proportions. The difference between means is statistically significant at 1%.

Despite the low relative poverty rate based on the equivalised household disposable income, we still think that the comparison by employment status adds to the understanding to which extent unemployed youth is disadvantaged as compared to young people who have a job. Figure 14 shows that unemployed youth has a four times higher risk of poverty (5% vs. 22%) and the difference is statistically significant.

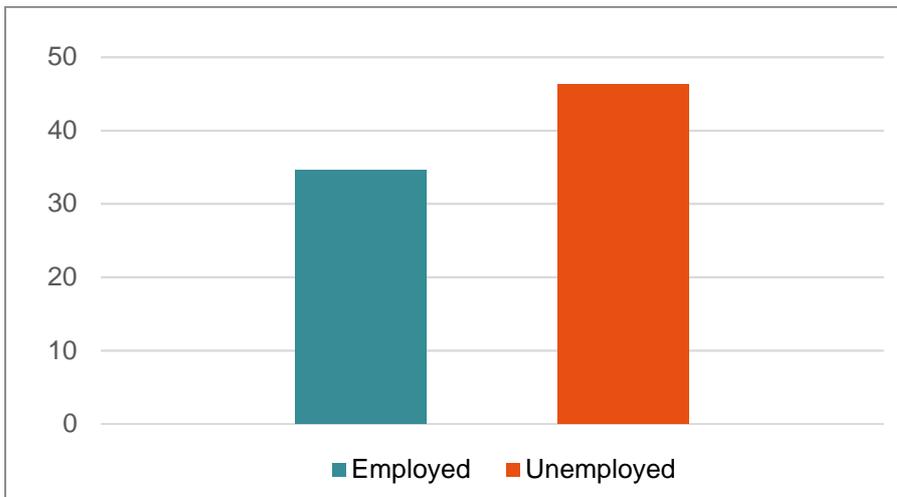
### Subjective poverty

Subjective poverty measurement based on self-perceived household income reveals a much higher rate of poverty, reaching the level of 46% for the unemployed and 35% for employed youth (Figure 15). The tendency is similar to EU-28 results. On the one hand,



there is an evidence that the poorest people perceive their income accurately relative to objective poverty, while richer people feel poorer compared to what objective poverty measures show (Posel & Casale 2011). On the other hand, given the low level of income in Ukraine, even if a household's income is above the poverty line, this does not imply that the level of income is sufficient to provide for basic needs. In Ukraine, the gap between unemployed and employed regarding subjective poverty is statistically significant.

Figure 15: Subjective financial situation by employment status in Ukraine (2013/2014, % of respondents aged 16-30 living in households with perceived estimate of income as not enough to provide food and basic needs)



Source: Own calculations based on Ukrainian Household Budget Survey 2014.  
Note: weighted proportions. The difference between means is statistically significant at 1%.

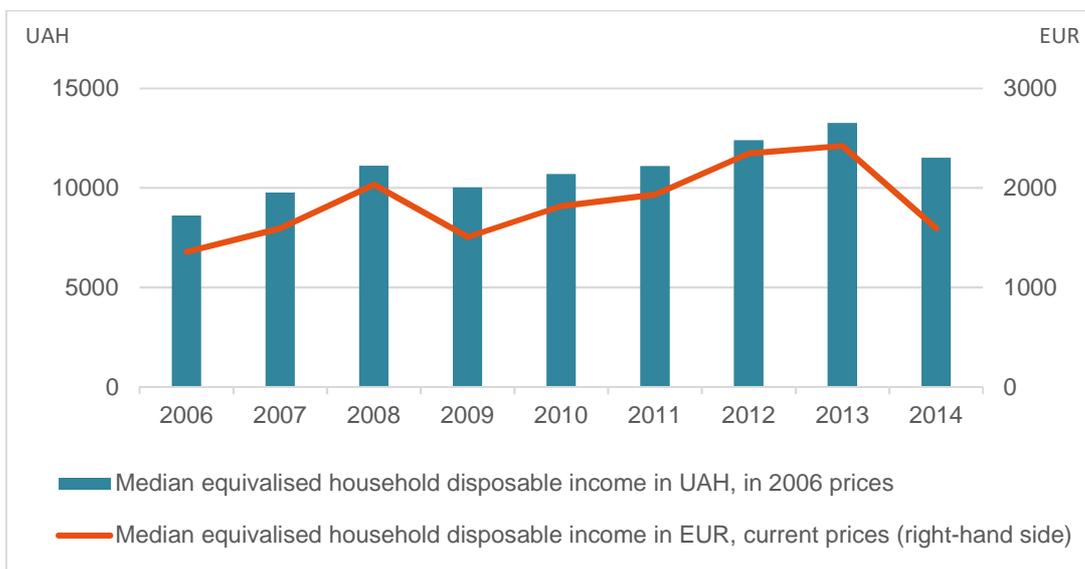
### Economic situation of youth before and after the economic crises

Ukraine had been hit hard by the economic crises at the end of 2008 with a 15% GDP fall in 2009<sup>9</sup>. Between 2010 and 2013, the economy gained overall 10% but then lost 7% in 2014 and 10% in 2015 due to the annexation of Crimea and military conflict in Eastern Ukraine. This is reflected in sharp drops in median equivalised income in 2009 and 2014. However, comparing 2007 and 2014 years, we do not observe a significant decrease in the household income (see Figure 16).

<sup>9</sup> State Statics Service of Ukraine. 2017. Gross domestic product. Available at [http://www.ukrstat.gov.ua/operativ/operativ2005/vvp/vvp\\_ric/vvp\\_e.htm](http://www.ukrstat.gov.ua/operativ/operativ2005/vvp/vvp_ric/vvp_e.htm)



Figure 16: Median equivalised household disposable income in 2006-2014, (Ukraine yearly data)

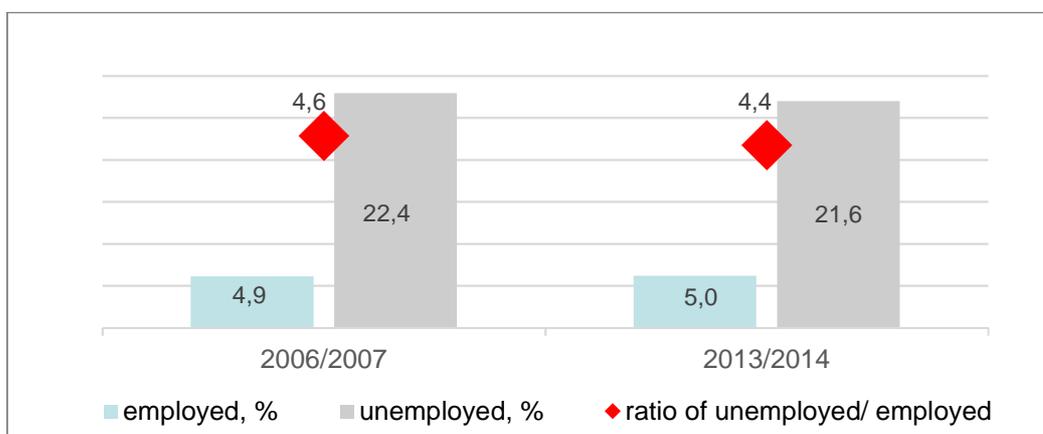


Source: Own calculations based on Ukrainian Household Budget Survey.

Following EU-28 analysis, we compare poverty rates among youth in 2007 and 2010 using anchored poverty line. Yearly poverty threshold defined as a 60% of median equivalised disposable income after tax and transfers is used for 2007 and the same threshold adjusted for inflation is used for 2010. The share of youth exposed to the risk of poverty increased marginally from 4.6% to 4.8% among employed and decreased from 23.0% to 20.5% among unemployed youth.

Comparing the situation in 2006/2007 and 2013/2014 using yearly poverty threshold gives similar results. We see that the poverty rate among youth based on the median household income decreased only slightly; yet, the decrease is statistically significant. It was driven by the lower risk of poverty among the unemployed. At the same time, the risk of poverty for employed youth slightly increased.

Figure 17: Ratio of the risk of poverty among before and after the crisis in Ukraine

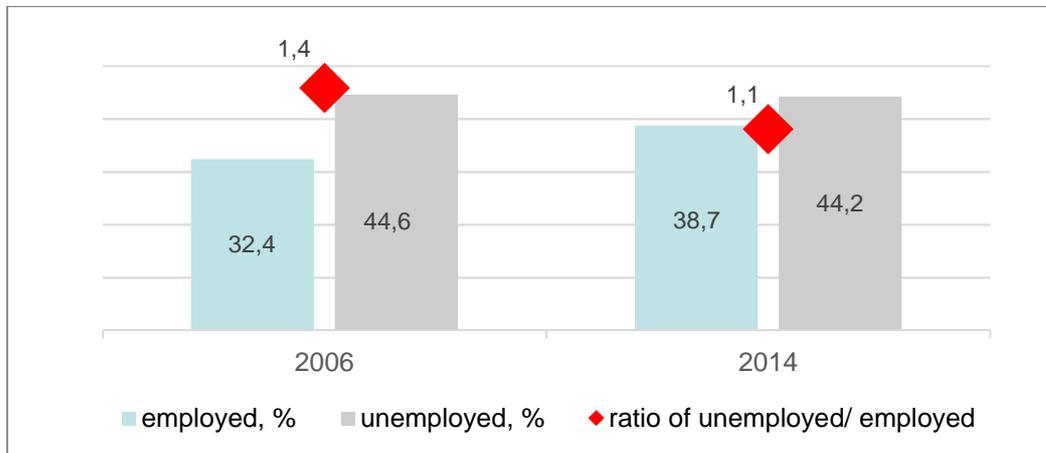


Source: Own calculations based on Ukrainian Household Budget Survey. Note: weighted proportions.



## No.15 – The impact of the institutional setting and policies on the economic situation of youth in insecure labour market positions in EU-28 & Ukraine

Figure 18: Share of youth living in households with perceived estimate of income as not enough to provide food and basic needs in Ukraine before and after the crisis



Source: Own calculations based on Ukrainian Household Budget Survey. Note: weighted proportions.

The situation for the subjective perception for household income is different - we see that after the crises more young people live in households, which income cannot provide for basic needs. This is mainly due to the worse outcome for the employed. Again, the subjective financial situation for the unemployed has improved, but only marginally. While the improvement is statistically significant, it constitutes a mere 0.4 p.p. As a result, the gap between the unemployed and the employed decreased after the crises for both risk of poverty based on the household equivalised income and the subjective financial situation.



## Chapter 4: Could labour market policies and institutions protect youth in insecure labour market positions from poverty?

This chapter presents the empirical findings of the multilevel modelling in which we tested our hypotheses presented in the Chapter 1, using data and methods described in Chapter 2. For clarity, we present here only results of the variables of interests, while the whole set of results can be found in the appendix.

### Moderating effect of labour market policies on situation of unemployed youth

Table 6 reports the results on the relationship between youth unemployment and the financial situation of their household and their own financial situation based on 2013 wave of EU-SILC. This is done for three indicators of financial hardship: being at-risk-of-poverty, having difficulty in making ends meet (both on HH level) and being excluded from social life for financial reasons (on the individual level).

The direct negative effect of youth unemployment on their financial situation is strong and robust across all specifications. Households with young unemployed have substantially higher probability of poverty (0.05 to 0.11 higher than those with young employed for the average levels of PLMP and ALMP expenditures). Young unemployed have also higher probability of exclusion from social life compared to young workers (0.16 – 0.17 higher for the average levels of PLMP and ALMP expenditures).

Models 1,3 and 5 test our hypotheses about the moderating role of PLMP while models 2,4 and 6 focus on the moderating role of ALMP, both for three indicators of socio-economic disadvantage: being at-risk-of-poverty, having difficulty in making ends meet and being excluded from social life for financial reasons. In line with hypothesis 1, we find that higher contribution to PLMP reduces the negative effect of youth unemployment on their financial situation. A one standard deviation increase in PLMP contribution is predicted to reduce the probability of poverty of unemployed youth by 0.03 - 0.05 depending on the measure of financial hardship. Across models 2, 4 and 6, we also find a mitigating effect of countries expenditures on ALMP on the effect of unemployment on all the analysed measures of financial difficulty, which confirms hypothesis 2. A one standard deviation increase in ALMP contribution is predicted to reduce the probability of poverty of unemployed by 0.04 – 0.05 depending on the measure analysed.

Interestingly, the expenditures on PLMP reduce also the probability of poverty of the HH with working youth with the effect significant for the objective HH indicator: risk-of-



poverty. For the effects of ALMP on households with employed youth, the pattern is similar but statistically significant only for the subjective HH indicator: difficulty in making ends meet. These results suggest that HHs with working youth also benefit from labour market policies, probably because of the eligibility to participate in LM policies of other household members.

To test the robustness of these findings, Table C.1 (in Appendix) reports the results of the analysis for the individuals who live without parents. As most of the data about poverty and material deprivation are collected on a household basis, they are sensitive to household composition. In the households with parents the effects of youth unemployment may be buffered by parents' higher income. Running the analyses on the subsample of youth living independently from parents allows to, at least partially, exclude this effect. Overall, qualitatively the results are very similar to those reported for the total sample. Therefore, we only shortly summarize the main findings. As expected, the direct negative effect of being unemployed on the financial situation of the household is stronger for youth living without parents. Still higher PLMP and ALMP contributions buffer the negative effect of unemployment.

The results of almost all individual-level control variables were robust for the three indicators analysed (Appendix B full estimation of results). Looking at the demographic characteristics individuals with higher level of education have lower probability to live in a risk-of-poverty HH and to be excluded from social life for the financial reasons. Younger individuals (among our sample aged 16-29) have higher probability of economic hardship when we control for household composition. Also being a women and an immigrant increases probability of financial difficulty. In line with findings from other studies, household composition is an important determinant of poverty and material deprivation. Living with parents or partner/spouse protects from economic hardship while living with children increases chances for that.



Table 6: Economic situation of unemployed youth: moderating role of PLMP and ALMP

	(1)	(2)	(3)	(4)	(5)	(6)
	Risk of poverty	Risk of poverty	Ends meet with difficulty	Ends meet with difficulty	Exclusion from social life	Exclusion from social life
Unemployed	0.165***	0.148***	0.0881***	0.0923***	0.228***	0.211***
Exp. on PLMP	-0.0115**		-0.0210		-0.0113	
Unemployed # exp. on PLMP	-0.0179***		-0.00948***		-0.0167***	
Exp. on ALMP		-0.0109		-0.0595**		-0.0207
Unemployed # exp. on ALMP		-0.0272***		-0.0254***		-0.0277***
Constant	0.676***	0.677***	0.932***	0.876***	0.646***	0.637***
Log lik.	-6984.8	-7003.6	-15975.0	-15964.9	-11289.7	-11300.5
Country variance	0.002 (0.001)	0.002 (0.001)	0.015 (0.004)	0.012 (0.003)	0.014 (0.004)	0.014 (0.004)
Observations	29550	29550	29550	29550	24381	24381
N of countries	26	26	26	26	23	23

\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$ , + UK and GR excluded from model 1-6 (lack of data for LMP expenditures), ++ CZ, DK and SI excluded from models 5-6 (lack of dependent variable).

## Moderating effect of labour market policies on situation of youth in insecure labour market positions

Tables 7 and 8 show the results on the relationship between temporary employment of youth and their financial situation. The former includes the results on the moderating role of EPL and the latter on the moderating role of trade unions density.

Households of young temporary workers have higher probability of poverty compared to household of young workers holding a permanent contract. Also, temporary employment of youth increases probability of their exclusion from social life for financial reasons. However, these results are only robust across three poverty indicators in the specifications controlling for discrepancy between EPL of regular and temporary contracts (models 2, 4 and 6 in Table 7) and trade union density (Table 8). The effect is the strongest for the probability of feeling excluded from social life for financial reasons.

Models 1,3 and 5 (Table 7) test our hypothesis about the moderating effect of the strictness of EPL while models 2,4 and 6 (Table 7) about the moderating role of the discrepancy between EPL of regular and temporary contracts. The results suggest that in neither case there is any moderating effect of EPL on the financial situation of young temporary workers and their households. Thus, both hypotheses 3a and 3b have to be rejected.



For trade unions, we find a small moderating effect on the effect of youth temporary employment on the financial distress of their HH and their probability of exclusion from social life for financial reasons (Table 8). The negative cross-level interaction of having temporary job with trade unions density suggests that higher trade union density buffers the negative consequences of temporary employment on these two measures of financial hardship. A one standard deviation increase in trade union density is predicted to reduce the negative effect of temporary employment on financial situation by 30%. This finding confirms hypothesis 4.

The results for individual-level control variables are similar to the models with unemployment (Appendix B Full estimation results). To examine the robustness of our results with respect to household composition, we estimate the models only for youth living without parents (Table C.2). In line with the results for the total sample, temporary employment of youth increases their probability of financial hardship<sup>10</sup>. Concerning the analyses on the moderating role of institutions, we find that the estimates for the cross-level interactions vary slightly. When we exclude youth living with parents from the analysis, we observe that strictness of EPL for regular contracts exacerbates the negative effect of temporary contract on the financial situation<sup>11</sup>. A one standard deviation increase in EPL for regular contracts is predicted to increase the probability of financial difficulty of young temporary workers by 0.02 – 0.03. Thus, unlike for the total sample hypothesis 3a can be confirmed in this case. As the effects of temporary work on financial situation are smaller than the effects of unemployment, the moderating role of institutions may get blurred by the household composition and become visible only when we analyse the subsample of youth out of parental home.

---

<sup>10</sup> Calculated for the average level of macro indicator.

<sup>11</sup> The effect is not observed for risk-of-poverty indicator.



Table 7: Economic situation of young temporary workers: moderating role of EPL

	(1)	(2)	(3)	(4)	(5)	(6)
	Risk of poverty	Risk of poverty	Ends meet with difficulty	Ends meet with difficulty	Exclusion from social life	Exclusion from social life
Temporary work	0.0522*	0.0461***	0.0115	0.0379**	0.0255	0.0498***
EPL for regular contracts	0.0173	0.0189	0.0018	0.0152	-0.0779	-0.0786
Temporary work # EPL for regular contracts	-0.0079		0.0074		0.0088	
EPL ratio		-0.0115		-0.0455		0.0151
Temporary work # EPL ratio		-0.0085		-0.0059		-0.0026
Constant	0.690***	0.708***	0.916***	0.972***	0.897***	0.870***
Log lik.	-4974.5	-4972.9	-13323.1	-13322.2	-8988.3	-8988.4
Country variance	0.001 (0.000)	0.001 (0.000)	0.021 (0.006)	0.019 (0.006)	0.010 (0.003)	0.010 (0.003)
Observations	26050	26050	26050	26050	20538	20538
N of countries	22	22	22	22	19	19

\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$ . + BG, HR, CY, LT, MT, RO excluded from models 1-6 because of the lack of EPL indicators, ++ CZ, DK and SI excluded from models 5-6 (lack of dependent variable).

Table 8: Economic situation of young temporary workers: moderating role of trade unions

	(1)	(2)	(3)
	Risk of poverty	Ends meet with difficulty	Exclusion from social life
Temporary work	0.0294***	0.0429***	0.0820***
Trade union density	-0.000959*	-0.00148	-0.00136
Temporary work # trade union density	0.000241	-0.000700*	-0.00132***
Constant	0.740***	1.018***	0.812***
Log lik.	-5697.9	-16529.7	-11863.7
Country variance	0.002 (0.000)	0.021 (0.006)	0.014 (0.004)
Observations	31045	31045	25425
N of countries	28	28	25

\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$ . ++ CZ, DK and SI excluded from model 3 (lack of dependent variable).



## Chapter 5: Policies, institutions and recent economic crisis.

In order to verify hypotheses 5-9 about the effect of economic crisis on the situation of vulnerable youth and on the effectiveness of policies and institutions we estimated a set of models on pooled data from EU-SILC 2007, 2010 and 2013. In this part of the analysis, we decided to use one indicator of economic difficulty: the lack of ability to make ends meet. This subjective measure refers to the situation of the young person's household. It is clear that economic hardship influences different dimensions of the economic situation of youth. However, the subjective feelings about their own material situation can affect more directly other areas of their life (e.g. mental health and well-being). Thus, it is important to verify, whether countries' policies and institutions can protect vulnerable youth against feelings of inability to make ends meet.

### Impact of the crisis on economic situation of unemployed youth and young people in insecure labour market positions

Both, youth in insecure labour market positions and unemployed youth are at higher risk of facing economic difficulties than their more privileged counterparts are. However, it seems that economic crisis did not change their situation significantly. Unemployed youth in times of the financial crisis were at similar risk of economic difficulties compared to working youth as the unemployed before and after economic downturn, (Table 9, model 1). This result may be due to increasing unemployment rate among youth during and after crisis. Thus, all youth were more likely to become unemployed, even those from wealthier households. Moreover, there were differences in countries' response to the financial crisis and in many countries unemployed youth were at higher risk of poverty and financial distress before the crisis (Rokicka and Kłobuszewska 2016). On the other hand there were also countries (especially in Southern Europe), where situation of unemployed youth worsened during and after crisis. Therefore, when we analyse the situation in the whole EU28, the effect of the crisis could disappear.

For young temporary workers, the situation differs as compared to unemployed youth. Being a temporary worker before the financial crisis was associated with a more difficult economic situation than during and after crisis (Table 9, model 2). It is possible, that in countries hit by the crisis, many firms did not renew temporary contracts, so many previous temporary workers became unemployed. Youth who kept their jobs were probably more satisfied with their economic situation, as an alternative was a status of unemployed.

For robustness check, we also estimated models for youth living without parents (see Appendix C), which give the same conclusions. These results suggest that hypothesis 5 should be rejected.



Table 9: Effects of crisis on unemployed and temporary workers

	Ends meet with difficulty		
	(1)	(2)	
Unemployed = 1	0.074***	Temporary work = 1	0.023***
Year 2007	-0.031***	Year 2007	-0.044***
Year 2013	0.017***	Year 2013	0.018***
Unempl # Y 2007	0.004	Temp # Y 2007	0.021**
Unempl #Y 2013	0.012	Temp # Y 2013	0.007
Constant	0.655***	Constant	0.662***
Log lik.	-54057.7		-53586.9
Country variance	0.029 (0.008)		0.031 (0.008)
Observations	102075		102326
N of countries	28		28

\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

## Moderating impact of labour market policies on economic situation of unemployed youth during financial crisis

Table 10 shows the relation between unemployment, labour market policies (PLMP – model 1, ALMP – model 2) and the crisis.

In the model 1 we verify the mitigating role of passive labour market policies during the financial crisis for the economic situation of young unemployed. Although average expenditures on PLMP diminish the financial distress of unemployed youth by 0.011, there is not significant difference between year 2007, 2010 and 2013 in the effectiveness of this policy. Therefore, hypothesis 6 should be rejected.

Similarly, to the results for PLMP, we find mitigating effect of ALMP for economic situation of unemployed youth. However, unlike PLMP, the effect of ALMP changed during the crisis. Increases in average expenditures on active labour market policies by 1000 Euro before the crisis were associated with lower risks of financial difficulties for unemployed youth by 0.018. During the crisis, ALMP seemed to be more effective, as the same increase in average expenditures on this kind of policy was associated with a 0.035 lesser risk of economic difficulties. In 2013, ALMP is as effective as in 2010. Thus the mitigating effect for unemployed increased during the crisis and remained similar after the economic downturn. Results of model 2 therefore confirm hypothesis 7.<sup>12</sup>

<sup>12</sup> Results of estimation for youth living without parents did not confirm hypothesis 7.



## No.15 – The impact of the institutional setting and policies on the economic situation of youth in insecure labour market positions in EU-28 & Ukraine

Table 10: Moderating impact of LMP on financial situations of unemployed during crisis

	Ends meet with difficulty	
	(1)	(2)
Unemployed = 1	0.107***	0.115***
Year 2007	-0.027***	-0.037***
Year 2013	0.013***	0.009*
Exp on PLMP per person wanting to work, Euro PPS	0.015***	
Unemployed # exp. on PLPM	-0.011***	
Unemployed # exp. on PLPM # Y 2007	0.0002	
Unemployed # exp. on PLPM # Y 2013	0.003	
Exp on ALMP per person wanting to work, Euro PPS		0.003
Unemployed # exp. on ALPM		-0.035***
Unemployed # exp. on ALPM # Y 2007		0.017***
Unemployed # exp. on ALPM # Y 2013		0.007
Constant	0.590***	0.643***
Log lik.	-49385.5	-49372.7
Country variance	0.037 (0.011)	0.027 (0.008)
Observations	93630	93630
N of countries	25	25

\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$ , + GR, HR and UK excluded from models (lack of data for LMP expenditures)

### Moderating impact of labour market institutions on economic situation of youth in insecure labour market positions during financial crisis

During the crisis young temporary workers are more vulnerable to adverse economic changes than employees with regular contracts are, as their working positions are less protected. Thus, our hypothesis is that stricter protection of regular contracts would worsen the position of less protected temporary workers in times of economic downturn. Moreover, we assumed that trade unions would represent interests of employees with regular contracts more than interests of temporary workers. This means that the division of the labour market to protected insiders and less protected outsiders could be more visible during economic hardship and influence stronger their economic situation. In order to test these hypotheses we estimated models with interaction between type of contract, EPL and year (Table 11, model 1) and interaction between type of contract, trade union density and year (Table 12, model 1).



Results of model 1 do not confirm hypothesis 8. There is no moderating effect of employment protection of regular contracts on the economic situation of young temporary workers, and this has not changed during the financial crisis.

Table 11: Moderating impact of EPL on financial situations of temporary workers during crisis

Ends meet with difficulty	(1)
Temporary work = 1	0.047**
Year 2007	-0.036***
Year 2013	0.016***
EPL for regular contracts	-0.081***
Temporary work # EPL for reg.	-0.006
Temporary work # EPL for reg. # Y 2007	0.005
Temporary work # EPL for reg. # Y 2013	-0.002
Constant	0.826***
Log lik.	-47641.8
Country variance	0.031 (0.009)
Observations	92959
N of countries	25

\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$ , + Depending on year BG, HR, CY, LT, LU, MT, RO excluded from analysis (the lack of EPL indicators)

Results of estimation of moderating role of trade unions during the crisis presented below indicate that on average trade unions density mitigates the negative impact of temporary contract on youth economic situation. Contrary to our expectations, it seems that during the financial crisis, trade unions have just begun to work effective in improving situation of young temporary workers. Similar results (a bit weaker) are given by estimation on population of youth living without parents. It suggests that during the crisis unions represented interests of temporary workers better or that spillover effect of unions on youth in insecure positions increased. Therefore, hypothesis 9 cannot be confirmed.



Table 12: Moderating impact of trade unions on financial situations of temporary workers during crisis

Ends meet with difficulty or great difficulty	(1)
Temporary work = 1	0.052***
Year 2007	-0.040***
Year 2013	0.012**
Trade union density	-0.003***
Temporary work # trade union dens.	-0.001***
Temporary work # trade union dens.# Y 2007	0.0009***
Temporary work # trade union dens. # Y 2013	0.0004
Constant	0.743***
Log lik.	-52967.3
Country variance	0.028 (0.007)
Observations	101491
N of countries	28

\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

## Conclusions and discussion

The present study aims at evaluating the moderating effect of country institutional context – labour market institutions and policies – on the relationship between individual labour market position and economic hardship among young adults in Europe. Moreover, it assesses whether the investigated associations changed during the recent financial crisis. Using the EU-SILC data, it employs both objective and subjective indicators of financial difficulty.

The results indicate that country policies matter for the economic situation of young unemployed and temporary workers. In particular, country-level expenditures to both, passive and active, labour market policies mitigate the negative effect of individual unemployment on youth's financial situation. This result is in line with earlier findings reported by Saltkjel & Malmberg-Heimonen (2016) and Gallie and Paugam (2000) indicating that income poverty is moderated by welfare generosity.

With respect to temporary workers, we find that the level of unionization moderates the economics consequences of temporary employment. The higher the density of trade unions, the smaller the financial gap between young temporary and permanent workers. This result indicates that, contrary to the predictions of insider-outsider theory, trade unions also protect young temporary workers to some degree.

Our expectations regarding the role of labour market protection legislation have not been confirmed. The findings suggest that neither strictness of EPL for regular



contracts nor the discrepancy between the protection of regular and temporary contracts moderate the relationship between temporary employment and poverty among youth. One possible reason for this result could be that the composite EPL indices aggregate different dimensions of employment protection and become more blurred because of combining together different dimensions. In some countries high protection would mean high costs of dismissal in other complicated procedures involved.

Moreover, our results for objective and subjective indicators of material situation are consistent, suggesting that the individual assessment of one's own financial situation is a good proxy for objective measures.

The present study also investigated the impact of the recent economic crisis on the relationship between labour market situation and the subjective material deprivation and on the moderating role of public policies and institutions. Contrary to expectations, the negative effect of unemployment on youth's material deprivation has not changed during the economic crisis while the negative effect of temporary contracts decreased. Possible explanation of this result is a change in the group of comparison for temporary workers. As layoffs of temporary workers were one of the main channels of adjustment during the crisis (Eichhorn et al. 2010), young temporary workers might have assessed their own situation against the situation of unemployed individuals, not against that of employed. Additionally, also the situation of permanent workers worsened during the crisis.

The results suggest that ALMP expenditures became more effective during the crisis and the effect lasts. Thus, its mitigating effect on unemployment – poverty relationship increased. We do not observe such an effect for PLMP expenditures. For trade unions we observe that only during the crisis they started to influence the situation of young temporary workers. However, it has to be noted that the investigation of the effects of the crisis is a challenge as there are quite substantial differences in the scope, timing and extent of financial crisis experienced by different EU countries. Not only the macroeconomic conditions changed differently in the EU-28, but also each country applied specific policy measures during this period. The fact that a few EU-28 countries remained in a poor macroeconomic situation still in 2013 could also blur the results, making the comparison during and after the crisis less distinctive.

The present analysis indicates the importance of labour market policies; however, there are some limitations which have to be acknowledged. First, our analysis relies on cross-sectional data; therefore, we can only report associations, not causal relationships. Second, we are limited by the lack of macro indicators specific to young people. Some of the ALMP and PLMP are specially dedicated to young people who are entering the labour market. Access to such indicators, and their application in the model could provide more comprehensive results about the moderating role of these dedicated policies. Furthermore, the data about poverty and material deprivation are collected on a household basis. The information may be sensitive to household composition, hence, the estimated impact of the individual labour market position on



## No.15 – The impact of the institutional setting and policies on the economic situation of youth in insecure labour market positions in EU-28 & Ukraine

the material situation can be imprecise. To address this issue, we conducted sensitivity checks running the analysis on separate samples of youth living with at least one parent and youth living independently from parents. In line with the expectations, the direct negative effect of being unemployed on the material situation of the household is stronger for youth living without parents. Parents are more likely to have higher wages because of longer work experience which can buffer household income loss in case of unemployment of younger members. Overall, the results on the policies' effectiveness are very similar to those reported for the total sample of youth. Nevertheless, we do observe a difference with respect to the effect of EPL: strictness of EPL for regular contracts exacerbates the negative effect of temporary contract on the financial situation when we exclude youth living with parents from the analysis which effect was not observed in the total sample.



## Bibliography:

- Aassve, A., Billari, F. C., Mazzucco, S., & Ongaro, F. (2002). Leaving Home: A Comparative Analysis of ECHP Data. *Journal of European Social Policy*, 12(4), 259–275.
- Aassve, A., Cottini, E., & Vitali, A. (2013). Youth Prospects in a Time of Economic Recession. *Demographic Research*, 29(36), 949–962.
- Amuedo-Dorantes, C. (2000). Work Transitions into and out of Involuntary Temporary Employment in a Segmented Market: Evidence from Spain. *Industrial & Labor Relations Review*, 53(2): 309–325.
- Atkinson, A. B., Cantillon, B., Marlier, E. & Nolan, B. (2002). *Social Indicators: The European Union and Social Inclusion*. Oxford: Oxford University Press.
- Barbier, S. C. (2005). The European Employment Strategy, a Channel for Activating Social Protection? In J. Zeitlin, P. Pochet & L. Magnusson (eds.), *The Open Method of Co-ordination in Action: The European Employment and Social Inclusion Strategies*. Brussels: Peter Lang.
- Bell, D. N. F. & Blanchflower, D. G. (2011). Young People and the Great Recession. *Oxford Review of Economic Policy*, 27(2): 241–267.
- Berthoud, R. & Robson, K. (2003). *Early Motherhood and Disadvantage: A Comparison between Ethnic Groups*. ISER working paper no. 2003-29, Colchester, Essex.
- Berthoud, R. (2003). *Multiple Disadvantage in Employment: A Quantitative Analysis*. York: Joseph Rowntree Foundation.
- Bernhardt, A., Dresser, L., and Hatton, E. (2003). The coffee pot wars: Unions and firm restructuring in the hotel Industry.” in E. Applebaum, A. Bernhardt, and R. J. Murnane. *Low Wage America*, pp 33-76., New York: Russell Sage Foundation.
- Blank, R., M., Sheldon H. D, and Schoeni, R.F. (2006). *Working and Poor*. New York: Russell Sage Foundation.
- Booth, A. L., Francesconi, M., & Frank, J. (2002). Temporary Jobs: Stepping Stones or Dead Ends? *The Economic Journal*, 112(480): F189–F213.
- Brady, D., Baker, R., and Finnigan, R. (2013). When unionization disappears: State-level unionization and working poverty in the United States. *American Sociological Review*, 78(5), 872-896
- Brady, D., Fullerton, A., and Cross, J.M.(2010). More than just nickels and dimes: A cross-national analysis of working poverty in 18 affluent democracies. *Social Problems*, 57:559–85.
- Brady, D. (2009). *Rich democracies, poor people*. New York: Oxford University Press.
- Brady, D. (2005). The Welfare State and Relative Poverty in Rich Western Democracies, 1967–1997. *Social Forces* 8(4): 1329–1364.
- Bäckman, O. (2009). Institutions, Structures and Poverty: A Comparative Study of 16 Countries, 1980–2000. *European Sociological Review* 25(2): 251–264.



- Cantó-Sanchéz, O. & Mercader-Prats, M. (1999). *Poverty among Children and Youth in Spain: The Role of Parents and Youth Employment Status*. Document de Treball 99.07, Departament d'Economia Aplicada, Universitat Autònoma de Barcelona, Spain.
- Card, D., Kluve, J., & Weber, A. (2010). Active Labour Market Policy Evaluations: A Meta-analysis. *The Economic Journal*, 120(548): F452–F477.
- Cazes, S., Heuer, C., & Verick, S. (2011). Labour Market Policies in Times of Crisis. In: I. Islam & S. Verick (eds.), *From the Great Recession to Labour Market Recovery*. London: Palgrave Macmillan.
- Clasen, J., Clegg, D., & Kvist, J. (2012). *European Labour Market Policies in (the) Crisis*. Retrieved from <http://www.etui.org/Publications2/Working-Papers/European-labour-market-policies-in-the-crisis>
- Cormier, D., & Craypo, C. (2000). The working poor and the working of American labour markets. *Cambridge Journal of Economics*, 24, 691-708.
- Cornfield, D. B., and Fletcher, B. (2001). "The U.S. labor movement: Toward a sociology of labor revitalization." *Sourcebook of Labor Markets*, edited by A. Kalleberg and I. Berg. pp. 61–82. New York: Plenum.
- Crettaz, E. (2013). A state-of-the-art review of working poverty in advanced economies: Theoretical models, measurement issues, and risk groups. *Journal of European Social Policy*, 23(4), 347–362.
- Crettaz, E. (2011) *Fighting Working Poverty in Postindustrial Economies: Causes, Trade-Offs and Policy Solutions*. Cheltenham, UK and Northampton, MA: Edward Elgar Publishing.
- DiPrete, Thomas A. (2002). "Life Course Risks, Mobility Regimes, and Mobility Consequences: A Comparison of Sweden, Germany, and the United States." *American Journal of Sociology* 108:267–309.
- DiPrete, T. A., de Graaf, P. M., Luijckx, R., Tahlin, M. & Blossfeld, H. (1997). Collectivist versus Individualist Mobility Regimes? Structural Change and Job Mobility in Four Countries. *American Journal of Sociology*, 103(2): 318–358.
- Duiella, M., & Turrini, A. (2014). *Poverty Developments in the EU after the Crisis: A Look at Main Drivers*. ECNIF Economic Brief, Issue 31, May.
- Emmenegger, P., Hausermann, S., Palier, B. and Seeleib-Kaiser, M. (2012) *The Age of Dualization: The Changing Face of Inequality in Deindustrializing Societies*. New York: Oxford University Press.
- Eichhorst, W., Escudero, V., Marx, P., and Tobin, S. (2010). The impact of the crisis on employment and the role of labour market institutions. *IZA Discussion Paper No. 5320*.
- Esping-Andersen, G. (1990). *The Three Worlds of Welfare Capitalism*. Cambridge: Polity Press.
- Fraser, N., Gutierrez, R. and Pena-Casas, R. (2011) *Working Poverty in Europe. A Comparative Approach*. Basingstoke: Palgrave Macmillan.



- Gallie, D. & Paugam, S. (eds.) (2000). *Welfare Regimes and the Experience of Unemployment in Europe*. Oxford: Oxford University Press.
- Gangl, M. (2003). The Only Way is Up? Employment Protection and Job Mobility among Recent Entrants to European Labour Markets. *European Sociological Review*, 19(5): 429–449.
- Gebel, M. (2010). Early Career Consequences of Temporary Employment in Germany and the UK. *Work, Employment & Society*, 24(4): 641–660.
- Goerne, A. (2011). In-Work Poverty in Europe: A Comparative Perspective In N. Fraser, R. Gutierrez and R. Pena-Casas (eds.), *Working Poverty in Europe. A Comparative Approach*. Basingstoke: Palgrave Macmillan.
- Goul Andersen, J. & Jensen, P.H. (2002). Changing Labour Markets, Welfare Policies, and Citizenship: An Introduction In J. Goul Andersen & P.H. Jensen (eds.), *Changing Labour Markets, Welfare Policies and Citizenship*. Bristol: Policy Press.
- Hofäcker, D. & Neumann, I. (2016). Socio-economic consequences of employment uncertainties and labour market exclusion of youth: A literature review. EXCEPT working paper.
- Jenkins, S. P., Brandolini, A., Micklewright, J. & Nolan, B. (Eds.). (2012). *The Great Recession and the Distribution of Household Income*. Oxford: Oxford University Press.
- Kalleberg, Arne L. 2007. *The Mismatched Worker*. NewYork: Norton.
- Kangas, O. & Palme, J. (2000). Does Social Policy Matter? Poverty Cycles in the OECD Countries. *International Journal of Health Services*, 30: 335–352.
- Kenworthy, L. (1999). Do Social Welfare Policies Reduce Poverty? A Cross-National Assessment. *Social Forces*, 77(3): 1119–1140.
- Kenworthy, L. (2011). *Progress for the Poor*. Oxford: Oxford University Press.
- Kieselbach, T., van Heeringen, K., La Rosa, M. et al. (eds.) (2001). *Living on the Edge. An Empirical Analysis on Long-Term Youth Unemployment and Social Exclusion in Europe*. Opladen: Leske+Budrich.
- Kluve, J., & Schmidt, C. M. (2002). Can Training and Employment Subsidies Combat European Unemployment? *Economic Policy*, 17(35): 409–448.
- Korpi, W. (1983). *The democratic class struggle*. Boston: Routledge.
- Korpi, W. and Palme, J. (1998). The Paradox of Redistribution and Strategies of Equality: Welfare State Institutions, Inequality, and Poverty in the Western Countries, *American Sociological Review*, 63(5): 661–687.
- Krause, A., Rinne, U., & Zimmermann, K. F. (2014). *How Far Away Is a Single European Labor Market?* IZA DP No. 8383.
- Malmberg-Heimonen, I. (2005). Integration into Work through Active Labour-Market Policies in Different Welfare State Regimes In Bradley, H. & van Hoof, J. (eds.), *Young People in Europe: Labour Markets and Citizenship*. Bristol: Policy Press.



- McDonald, C. & Marston, G. (2005). Workfare as Welfare: Governing Unemployment in the Advanced Liberal State. *Critical Social Policy*, 25(3): 374–401.
- Nolan, B. and Whelan, C T. (2010). Using Non-Monetary Deprivation Indicators to Analyse Poverty and Social Exclusion in Rich Countries: Lessons from Europe? *Journal of Policy Analysis and Management*, 29: 305–323.
- Newman, K. S. (1999). *No shame in my game*. New York: Russell Sage Foundation and Knopf.
- OECD (2014). *OECD Employment Outlook 2014*. Paris: OECD Publishing.
- Pavis S., Platt S. & Hubbard G. (2000). *Young People in Scotland: Pathways to Social Inclusion and Exclusion*. York: Joseph Rowntree Foundation.
- Posel, D.R. & Casale, D.M. (2011) Relative Standing and Subjective Well-Being in South Africa: The Role of Perception, Expectations and Income Mobility. *Social Indicators Research*, 104(2): 195-223.
- Rokicka, M. (Ed.), Kłobuszewska, M. (2016). *The Short-term Economic Consequences of Insecure Labour Market Positions in EU-28*, EXCEPT Working Papers, WP No. 10. Tallinn: Tallinn University. Retrieved from <http://www.except-project.eu/working-papers/>
- Rokicka, M. (Ed.), Kłobuszewska, M., Palczyńska, M., Shapoval, N., Stasiowski, J. (2015). *Composition and Cumulative Disadvantage of Youth across Europe*, EXCEPT Working Papers, WP No 1. Tallinn: Tallinn University. Retrieved from <http://www.except-project.eu/working-papers/>
- Saltkjel, T. & Malmberg-Heimonen, I. (2016). Welfare generosity in Europe: A multi-level study of material deprivation and income poverty among disadvantaged groups. *Social Policy Administration*, doi: [10.1111/spol.12217](https://doi.org/10.1111/spol.12217)
- Snijders, T. A. B., & Bosker, R. J. (1999). *Multilevel Analysis: An Introduction to Basic and Advanced Multilevel Modeling*. Sage Publications.
- Torring, J. (1999). Workfare with Welfare: Recent Reforms of the Danish Welfare State. *Journal of European Social Policy*, 9(1): 5–28.
- Whelan, C.T. & Maitre, B. (2013). Material Deprivation, Economic Stress, and Reference Groups in Europe: An Analysis of EU-SILC 2009. *European Sociological Review*, 29(6): 1162–1174.
- Zuberi, D. (2006). *Differences That Matter*. Ithaca, NY: Cornell University Press

## Appendix A: Macro indicators and descriptive statistics

Table A. 1: Macro indicators (part1)

	GDP per capita 2006 (thousands of Euro, PPS)	GDP per capita 2009 (thousands of Euro, PPS)	GDP per capita 2012 (thousands of Euro, PPS)	Unemployment rate 2006	Unemployment rate 2009	Unemployment rate 2012	Exp. on PLMP per person wanting to work, Euro PPS 2006	Exp. on PLMP per person wanting to work, Euro PPS 2009	Exp. on PLMP per person wanting to work, Euro PPS 2012	Exp. on ALMP per person wanting to work, Euro PPS 2006	Exp. on ALMP per person wanting to work, Euro PPS 2009	Exp. on ALMP per person wanting to work, Euro PPS 2012
BE	27.8	27.6	30.7	8.3	7.9	7.6	7019	8302	7309	2343	2850	3143
BG	9	10.3	12.1	9	6.8	12.3	168	588	542	338	338	232
CZ	18.9	19.4	20.7	7.1	6.7	7	689	1604	969	386	606	583
DK	29.3	28.9	32.1	3.9	6	7.5	8693	6289	6543	8061	5696	6166
DE	27.3	26.9	31.5	10.1	7.6	5.4	5464	5884	5456	2244	2599	2081
EE	15.6	14.9	18.3	5.9	13.5	10	187	1951	928	112	191	386
IE	34.4	30.1	32.9	4.5	12	14.7	5972	9093	8411	3547	2319	2580
GR	21.8	22.3	19.5	9	9.6	24.5	1639	2864	..	620	884	..
ES	24.8	24.2	24.4	8.5	17.9	24.8	4276	5668	4499	1930	1266	850
FR	25.5	25.5	27.7	8.8	9.1	9.8	6217	6400	6662	3218	3365	3015
HR	14.1	14.9	15.6	11.6	9.2	16	..	..	646	..	..	234
IT	24.7	24.3	25.6	6.8	7.7	10.7	1821	3325	3590	1160	941	813
CY	22	23.4	23.4	4.6	5.4	11.9	3366	3826	2897	272	972	716
LV	12.5	12.7	16.4	7	17.5	15	319	881	326	205	234	227
LT	13.6	13.6	18.3	5.8	13.8	13.4	345	865	528	524	281	405
LU	63.8	59.2	67.1	4.6	5.1	5.1	10311	6882	6486	9520	3644	4865
HU	14.9	15.3	17	7.5	10	11	796	1394	826	574	791	1196
MT	18.6	19.8	22.1	6.8	6.9	6.3	1169	1114	961	192	113	336

NL	31	31	32.5	5	4.4	5.8	9621	10345	9103	4884	5610	3402
AT	29.7	29.5	33.1	5.3	5.3	4.9	4545	4973	5074	2155	2537	2503
PL	12.3	14.2	17.1	13.9	8.1	10.1	277	361	413	382	896	706
PT	18.7	18.8	19.4	8.9	10.7	15.8	4020	3906	2823	1637	2048	705
RO	9.2	11.7	13.6	7.2	6.5	6.8	423	675	343	153	72	72
SI	20.7	20.2	21.4	6	5.9	8.9	1133	2057	2562	518	844	543
SK	14.9	17	19.4	13.5	12.1	14	216	655	574	256	340	427
FI	26.9	26.9	29.4	7.7	8.2	7.7	4684	5462	5576	2658	2762	3507
SE	29	28.2	32.2	7.1	8.3	8	4797	3562	3028	4533	2779	4823
UK	28.9	26.3	26.6	5.4	7.6	7.9	860	1196	..	169	196	..
<b>mean</b>	<b>22.9</b>	<b>22.8</b>	<b>25.0</b>	<b>7.5</b>	<b>8.9</b>	<b>10.8</b>	<b>3297</b>	<b>3708</b>	<b>3349</b>	<b>1948</b>	<b>1673</b>	<b>1712</b>
<b>st. dev.</b>	<b>10.5</b>	<b>9.3</b>	<b>10.3</b>	<b>2.5</b>	<b>3.4</b>	<b>5.0</b>	<b>3084</b>	<b>2832</b>	<b>2785</b>	<b>2376</b>	<b>1568</b>	<b>1693</b>

Table A. 2: Macro indicators (cont.)

country	Trade union density 2006	Trade union density 2009	Trade union density 2012	EPL for temporary contracts 2006	EPL for temporary contracts 2009	EPL for temporary contracts 2012	EPL for regular contracts 2006	EPL for regular contracts 2009	EPL for regular contracts 2012
BE	54.8	54.9	55	2.375	2.375	2.375	1.89	1.89	1.89
BG	17.5	16.3	16.1	0.875*	0.875*	..	1.769*	1.769*	..
CZ	18.9	16.8	14.2	1.125	1.125	1.4375	3.31	3.05	2.92
DK	68.4	67.7	67.2	1.375	1.375	1.375	2.13	2.13	2.20
DE	20.7	18.9	17.9	1	1	1	2.68	2.68	2.68
EE	8.5	7.7	6.4	1.75*	1.875	1.875	2.996*	2.74	1.81
IE	32.4	33.1	31.2	0.625	0.625	0.625	1.27	1.27	1.40
GR	24.7	23.2	21.3	2.75	2.75	2.25	2.80	2.80	2.17
ES	14.5	17.8	17.5	3.25	3	2.6875	2.36	2.36	2.21
FR	7.6	7.7	7.7	3.625	3.625	3.625	2.47	2.38	2.38
HR	..	33.7	30.9	..	..	..	..	..	..
IT	33.2	34.7	36.3	2	2	2	2.76	2.76	2.76
CY	58	52.5	43.6	..	..	..	..	..	..
LV	16.9	14.9	13.1	1.375*	1.375*	0.875	2.27*	2.27*	2.69
LT	11	10.4	9	1.625*	1.625*	..	3.365*	2.698*	..
LU	40.1	36	32.8	..	3.75	3.75	..	2.25	2.25
HU	15.9	12.8	10.6	1.125	1.125	1.25	2.00	2.00	2.00
MT	56.8	52.1	52.9	..	..	..	..	..	..
NL	20	19.1	17.7	0.9375	0.9375	0.9375	2.88	2.82	2.82
AT	31	28.7	27.4	1.3125	1.3125	1.3125	2.37	2.37	2.37
PL	16.3	14.6	12.7	1.75	1.75	1.75	2.23	2.23	2.23
PT	20.8	20.1	18.5	2.5625	1.9375	1.9375	4.42	4.42	3.56
RO	36	.a	19.8	2.5*	2.5*		1.916*	1.916*	..
SI	31.4	26.3	22	1.875*	1.8125	1.8125	2.984*	2.65	2.60

SK	20.6	16	13.6	0.63	1.63	1.63	2.22	2.22	1.71
FI	70.4	69.2	68.6	1.5625	1.5625	1.5625	2.17	2.17	2.17
SE	75.1	68.4	67.5	1.4375	0.8125	0.8125	2.61	2.61	2.61
UK	28.1	27.1	25.8	0.375	0.375	0.375	1.26	1.26	1.26
<b>mean</b>	<b>31.5</b>	<b>29.7</b>	<b>27.8</b>	<b>1.6</b>	<b>1.7</b>	<b>1.7</b>	<b>2.4</b>	<b>2.4</b>	<b>2.3</b>
<b>st. dev.</b>	<b>19.4</b>	<b>18.6</b>	<b>18.5</b>	<b>0.9</b>	<b>0.9</b>	<b>0.8</b>	<b>0.7</b>	<b>0.6</b>	<b>0.5</b>

\*supplemented with Avdagic, S. (2015)



Table A. 3: Poverty indicators by employment status and country (% , 2013)

	Exclusion from social life		Inability to make ends meet		Risk of poverty	
	Employed	Unemployed	Employed	Unemployed	Employed	Unemployed
AT	9,86	40,1	11,32	37,72	10,27	43,72
BE	8,44	40,22	13,81	57,78	3,61	42,94
BG	41,95	83,91	52,4	87,07	5,81	47,41
CY	18,1	36,72	58,83	81,01	9,47	27,89
CZ			28,33	55,26	2,48	33,19
DE	14,75	51,72	6,47	40,78	11,44	55,03
DK			11,9	39,79	12,83	51,21
EE	10,68	34,96	11,36	37,87	5,4	50,56
ES	12,64	40,24	34,51	63,73	9,82	41,29
FI	2,32	15,01	3,02	18,27	5,23	36,97
FR	10,99	44,52	19,26	35,63	9,44	33,24
GR	33,64	64,71	74,97	85,98	14,59	43,12
HR	14,1	44,3	55,92	75,76	5,32	34,92
HU	39,06	78,9	51,02	78,26	7,67	47,36
IE	30,42	59,33	27,61	52,23	4,21	27,13
IT	16,57	40,13	38,55	63,64	11,49	41,6
LT	24,57	65,24	18,38	64,99	6,52	53,26
LU	5,97	22,2	11,02	33	11,56	50,06
LV	15,52	57,48	43,38	73,15	7,07	40,18
MT	24,68	54,53	34,85	61,68	4,03	34,81
NL	5,05	28,17	10,76	37,04	3,72	12,64
PL	17,99	51,45	25,57	48,83	8,66	38,31
PT	14,88	51,04	39,84	64,23	8,84	42,66
RO	59,97	82,23	46,89	77,07	21,36	54,72
SE	4,81	51,5	3,23	21,54	12,63	41,98
SI			37,39	50,58	7,16	41,37
SK	9,48	47,36	30,39	56,32	2,77	35,44
UK	23,32	63,02	18,02	45,32	7,11	36,7



## No.15 – The impact of the institutional setting and policies on the economic situation of youth in insecure labour market positions in EU-28 & Ukraine

Table A. 4: Poverty indicators by type of employment and country (% , 2013)

country	Exclusion from social life		Inability to make ends meet		Risk of poverty	
	Permanent	Temporary	Permanent	Temporary	Permanent	Temporary
AT	12,89	14,79	13,37	19,16	12,92	21,75
BE	10,49	22,81	15,52	30,37	5,11	23,99
BG	49,13	69,17	59,38	79,47	9,95	28,61
CY	21,03	21,61	66,45	64,54	12,52	25,01
CZ			30,19	44,41	4,11	12,22
DE	14,94	24,78	5,76	12,74	10,46	22,17
DK			15,11	11,46	15,67	27,5
EE	13,1	22,91	14,46	33,55	9,06	29,24
ES	19,55	28,2	36,4	50,97	10,4	27,26
FI	4,66	7,79	4,86	6,07	4,67	20,99
FR	14,15	18,12	20,74	23,78	10,69	19,44
GR	44,27	52,37	82,14	73,87	24,48	21,02
HR	13,17	27,59	57,52	66,77	6,48	19,14
HU	42,31	68	54,19	75,48	10,62	32,36
IE	40,75	34,9	38,14	34,78	8,1	11,73
IT	19,21	28,16	43,3	46,07	12,76	23,94
LT	29,35	70,84	23,81	49,55	12,47	42,09
LU	7,18	12,23	12,03	24,82	13,48	30,03
LV	20,41	48,58	47,85	48,98	11,46	26,83
MT	28,64	36,15	38,65	47,74	8,29	15,21
NL	6,33	8,47	12,24	14,65	7,56	12,21
PL	18,36	32,04	23,12	37,67	7,36	18,86
PT	21,53	24,29	47,67	48,34	14,92	16,84
RO	50,45	84,49	42,08	44,24	6,12	11,69
SE	6,42	17,08	3,68	17,17	10,89	35,54
SI			36,99	44,81	7,86	14,46
SK	12,21	23,29	32,9	38,58	3,72	12,83
UK	31,34	17,47	23,19	23,12	10,79	4,99



## Appendix B Full estimation results

Table B. 1: Economic situation of unemployed youth: moderating role of PLMP and ALMP

	(1)	(2)	(3)	(4)	(5)	(6)
	Risk of poverty	Risk of poverty	Ends meet with difficulty	Ends meet with difficulty	Exclusion from social life	Exclusion from social life
Unemployed	0.165***	0.148***	0.088***	0.092***	0.228***	0.211***
Age 16-23 (binary)	0.035***	0.035***	0.020***	0.020***	0.012*	0.012*
Education: lower secondary	0.115***	0.114***	0.131***	0.131***	0.125***	0.124***
Education: tertiary	-0.036***	-0.036***	-0.111***	-0.112***	-0.100***	-0.100***
Sex: female	0.007	0.007	0.014**	0.014**	0.029***	0.029***
Immigrant	0.080***	0.081***	0.051***	0.053***	0.071***	0.073***
Lives with parent	-0.128***	-0.128***	-0.010	-0.010	-0.066***	-0.066***
Lives with children	0.020***	0.020***	0.055***	0.056***	0.068***	0.068***
Lives with partner/spouse	-0.056***	-0.056***	-0.057***	-0.058***	-0.011	-0.011
HH work intensity status	-0.154***	-0.154***	-0.116***	-0.116***	-0.083***	-0.083***
GDP per capita	0.0004	-0.0005	-0.007*	-0.003	-0.005	-0.005
Exp. on PLMP	-0.012**		-0.021		-0.011	
Unemployed # exp. on PLMP	-0.018***		-0.009***		-0.017***	
Exp on ALMP		-0.011		-0.060**		-0.021
Unemployed # exp. on ALMP		-0.027***		-0.025***		-0.028***
Constant	0.676***	0.677***	0.932***	0.876***	0.646***	0.637***
Log lik.	-6984.8	-7003.6	-15975.0	-15964.9	-11289.7	-11300.5
Country variance	0.002 (0.001)	0.002 (0.001)	0.015 (0.004)	0.012 (0.003)	0.014 (0.004)	0.014 (0.004)
Observations	29550	29550	29550	29550	24381	24381
N of countries	26	26	26	26	23	23

\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$ . + UK and GR excluded from model 1-6 (lack of data for LMP expenditures); ++ CZ, DK and SI excluded from models 5-6 (lack of dependent variable). Base category: for unemployed – employed, for age 16-23 – age 24-29, for education level – secondary education, for immigrant – born in the country, for lives with parent – lives without parent, for lives with children – lives without children, for lives with partner/spouse – lives without partner/spouse



## No.15 – The impact of the institutional setting and policies on the economic situation of youth in insecure labour market positions in EU-28 & Ukraine

Table B. 2: Economic situation of young temporary workers: moderating role of EPL

	(1)	(2)	(3)	(4)	(5)	(6)
	Risk of poverty	Risk of poverty	Ends meet with difficulty	Ends meet with difficulty	Exclusion from social life	Exclusion from social life
Temporary work	0.052*	0.046***	0.012	0.038**	0.026	0.050***
Age 16-23 (binary)	0.022***	0.022***	0.005	0.005	-0.003	-0.003
Education: at least lower secondary	0.086***	0.086***	0.118***	0.117***	0.114***	0.114***
Education: tertiary	-0.036***	-0.036***	-0.114***	-0.114***	-0.104***	-0.104***
Sex: female	0.003	0.003	0.008	0.008	0.037***	0.037***
Immigrant	0.068***	0.068***	0.085***	0.085***	0.072***	0.072***
Lives with parent	-0.145***	-0.145***	-0.013	-0.013	-0.069***	-0.061***
Lives with children	0.011*	0.011*	0.056***	0.056***	0.104***	0.104***
Lives with partner/spouse	-0.064***	-0.065***	-0.051***	-0.051***	-0.022**	-0.022**
HH work intensity status	-0.163***	-0.163***	-0.112***	-0.112***	-0.116***	-0.116***
GDP per capita	-0.001	-0.001	-0.010***	-0.010***	-0.006**	-0.006**
EPL for regular contracts	0.017	0.019	0.002	0.015	-0.078	-0.079
Temporary work # EPL for regular contracts	-0.008		0.007		0.009	
EPL ratio		-0.012		-0.046		0.015
Temporary work # EPL ratio		-0.008		-0.006		-0.003
Constant	0.690***	0.708***	0.916***	0.972***	0.897***	0.870***
Log lik.	-4974.5	-4972.9	-13323.1	-13322.2	-8988.3	-8988.4
Country variance	0.001 (0.000)	0.001 (0.000)	0.021 (0.006)	0.019 (0.006)	0.010 (0.003)	0.010 (0.003)
Observations	26050	26050	26050	26050	20538	20538
N of countries	22	22	22	22	19	19

\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$ ; + BG, HR, CY, LT, MT, RO excluded from models 1-6 because of the lack of EPL indicators; ++ CZ, DK and SI excluded from models 5-6 (lack of dependent variable). Base category: for temporary work – permanent work, for age 16-23 – age 24-29, for education level – secondary education, for immigrant – born in the country, for lives with parent – lives without parent, for lives with children – lives without children, for lives with partner/spouse – lives without partner/spouse



Table B. 3: Economic situation of young temporary workers: moderating role of trade unions

	(1) Risk of poverty	(2) Ends meet with difficulty	(3) Exclusion from social life
Temporary work	0.029***	0.043***	0.082***
Age 16-23 (binary)	0.021***	0.007	-0.005
Education: at least lower secondary	0.087***	0.118***	0.117***
Education: tertiary	-0.039***	-0.123***	-0.113***
Sex: female	0.004	0.009	0.032***
Immigrant	0.069***	0.065***	0.054***
Lives with parent	-0.139***	-0.007	-0.067***
Lives with children	0.013*	0.057***	0.097***
Lives with partner/spouse	-0.058***	-0.051***	-0.014
HH work intensity status	-0.164***	-0.117***	-0.115***
GDP per capita	-0.0008	-0.011**	-0.007**
Trade union density	-0.001*	-0.001	-0.001
Temporary work # trade union density	0.0002	-0.0007*	-0.001***
Constant	0.740***	1.018***	0.812***
Log lik.	-5697.9	-16529.7	-11863.7
Country variance	0.002 (0.000)	0.021 (0.006)	0.014 (0.004)
Observations	31045	31045	25425
N of countries	28	28	25

\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$ ; ++ CZ, DK and SI excluded from model 3 (lack of dependent variable)

Base category: for temporary work – permanent work, for age 16-23 – age 24-29, for education level – secondary education, for immigrant – born in the country, for lives with parent – lives without parent, for lives with children – lives without children, for lives with partner/spouse – lives without partner/spouse



## No.15 – The impact of the institutional setting and policies on the economic situation of youth in insecure labour market positions in EU-28 & Ukraine

Table B. 4: Economic situation of young unemployed and youth working on temporary contracts during financial crisis

Ends meet with difficulty	(1)		(2)
Unemployed = 1	0.074***	Temporary work = 1	0.023***
Age 16-23 (dummy)	0.025***	Age	0.009**
Education: lower secondary	0.121***	Education: lower secondary	0.119***
Education: tertiary	-0.108***	Education: tertiary	-0.121***
Sex: female	0.016***	Sex: female	0.011***
Immigrant	0.049***	Immigrant	0.053***
Lives with parent	-0.020***	Lives with parent	-0.017***
Lives with children	0.053***	Lives with children	0.053***
Lives with partner/spouse	-0.057***	Lives with partner/spouse	-0.052***
HH work intensity status	-0.105***	HH work intensity status	-0.106***
Year 2007	-0.031***	Year 2007	-0.044***
Year 2013	0.017***	Year 2013	0.018***
Unemployed # Y 2007	0.004	Temporary work x Y 2007	0.021**
Unemployed # Y 2013	0.012	Temporary work x Y 2013	0.007
Constant	0.655***	Constant	0.662***
Log lik.	-54057.7		-53586.9
Country variance	0.029 (0.008)		0.031 (0.008)
Observations	102075		102326
N of countries	28		28

\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

Base category: for unemployed – employed, for temporary work – permanent work, for age 16-23 – age 24-29, for education level – secondary education, for immigrant – born in the country, for lives with parent – lives without parent, for lives with children – lives without children, for lives with partner/spouse – lives without partner/spouse, for year 2007 and 2013 – year 2010



Table B. 5: Economic situation of young unemployed: moderating role of PLMP and ALMP during financial crisis

Ends meet with difficulty	(1)	(2)
Unemployed = 1	0.107***	0.115***
Age 16-23 (dummy)	0.024***	0.024***
Education: lower secondary	0.123***	0.123***
Education: tertiary	-0.107***	-0.107***
Sex: female	0.017***	0.017***
Immigrant	0.045***	0.047***
Lives with parent	-0.022***	-0.022***
Lives with children	0.054***	0.054***
Lives with partner/spouse	-0.062***	-0.062***
HH work intensity status	-0.107***	-0.106***
Year 2007	-0.027***	-0.037***
Year 2013	0.013***	0.009*
Exp on PLMP per person wanting to work, Euro PPS	0.015***	
Unemployed # exp. on PLPM	-0.011***	
Unemployed # exp. on PLPM # Y 2007	0.0002	
Unemployed # exp. on PLPM # Y 2013	0.003	
Exp on ALMP per person wanting to work, Euro PPS		0.003
Unemployed # exp. on ALPM		-0.035***
Unemployed # exp. on ALPM # Y 2007		0.017***
Unemployed # exp. on ALPM # Y 2013		0.007
Constant	0.590***	0.643***
Log lik.	-49385.5	-49372.7
Country variance	0.037 (0.011)	0.027 (0.008)
Observations	93630	93630
N of countries	25	25

\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$ ; + GR, HR and UK excluded from models (lack of data for LMP expenditures)

Base category: for unemployed – employed, for age 16-23 – age 24-29, for education level – secondary education, for immigrant – born in the country, for lives with parent – lives without parent, for lives with children – lives without children, for lives with partner/spouse – lives without partner/spouse, for year 2007 and 2013 – year 2010



## No.15 – The impact of the institutional setting and policies on the economic situation of youth in insecure labour market positions in EU-28 & Ukraine

Table B. 6: Economic situation of young temporary workers: moderating role of EPL during financial crisis

Ends meet with difficulty	(1)
Temporary work = 1	0.047**
Age 16-23 (dummy)	0.007*
Education: lower secondary	0.120***
Education: tertiary	-0.117***
Sex: female	0.010***
Immigrant	0.067***
Lives with parent	-0.023***
Lives with children	0.052***
Lives with partner/spouse	-0.058***
HH work intensity status	-0.103***
Year 2007	-0.036***
Year 2013	0.016***
EPL for regular contracts	-0.081***
Temporary work # EPL for reg.	-0.006
Temporary work # EPL for reg. # Y 2007	0.005
Temporary work # EPL for reg. # Y 2013	-0.002
Constant	0.826***
Log lik.	-47641.8
Country variance	0.031 (0.009)
Observations	92959
N of countries	25

\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$ ; + Depending on year BG, HR, CY, LT, LU, MT, RO excluded from analysis (the lack of EPL indicators)

Base category: for temporary work – permanent work, for age 16-23 – age 24-29, for education level – secondary education, for immigrant – born in the country, for lives with parent – lives without parent, for lives with children – lives without children, for lives with partner/spouse – lives without partner/spouse, for year 2007 and 2013 – year 2010



Table B. 7: Economic situation of young temporary workers: moderating role of trade union density during financial crisis

Ends meet with difficulty	(1)
Temporary work = 1	0.052***
Age 16-23 (dummy)	0.009**
Education: lower secondary	0.119***
Education: tertiary	-0.120***
Sex: female	0.011***
Immigrant	0.054***
Lives with parent	-0.018***
Lives with children	0.052***
Lives with partner/spouse	-0.053***
HH work intensity status	-0.106***
Year 2007	-0.040***
Year 2013	0.012**
Trade union density	-0.003***
Temporary work # trade union dens.	-0.001***
Temporary work # trade union dens. # Y 2007	0.0009***
Temporary work # trade union dens. # Y 2013	0.0004
Constant	0.743***
Log lik.	-52967.3
Country variance	0.028 (0.007)
Observations	101491
N of countries	28

\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

Base category: for temporary work – permanent work, for age 16-23 – age 24-29, for education level – secondary education, for immigrant – born in the country, for lives with parent – lives without parent, for lives with children – lives without children, for lives with partner/spouse – lives without partner/spouse, for year 2007 and 2013 – year 2010



## Appendix C Estimation results for youth living without parents

Table C. 1: Economic situation of unemployed youth: moderating role of PLMP and ALMP

	(1)	(2)	(3)	(4)	(5)	(6)
	Risk of poverty	Risk of poverty	Ends meet with difficulty	Ends meet with difficulty	Exclusion from social life	Exclusion from social life
Unemployed	0.211***	0.173***	0.159***	0.156***	0.134***	0.141***
Age 16-23 (binary)	0.039***	0.039***	0.002	0.002	0.008	0.008
Education: lower secondary	0.090***	0.089***	0.124***	0.123***	0.127***	0.126***
Education: tertiary	-0.033***	-0.033***	-0.109***	-0.110***	-0.110***	-0.111***
Sex: female	-0.007	-0.007	0.008	0.008	0.038***	0.038***
Immigrant	0.060***	0.061***	0.056***	0.058***	0.076***	0.077***
Lives with children	0.024***	0.024***	0.071***	0.070***	0.063***	0.063***
Lives with partner/spouse	-0.074***	-0.073***	-0.065***	-0.065***	-0.024**	-0.024**
HH work intensity status	-0.147***	-0.147***	-0.084***	-0.084***	-0.091***	-0.091***
GDP per capita	0.002	0.001	-0.006	-0.003	-0.005	-0.004
Exp. on PLMP	-0.011**		-0.014		-0.010	
Unemployed # exp. on PLMP	-0.018***		-0.016***		-0.006	
Exp on ALMP		-0.011		-0.050**		-0.023
Unemployed # exp. on ALMP		-0.014*		-0.033***		-0.018*
Constant	0.629***	0.633***	0.779***	0.731***	0.682***	0.665***
Log lik.	-2653.2	-2668.5	-5305.1	-5299.8	-4266.7	-4265.4
	0.001 (0.000)	0.002 (0.001)	0.013 (0.004)	0.011 (0.003)	0.013 (0.004)	0.013 (0.004)
Observations	11809	11809	11809	11809	9714	9714
N of countries	26	26	26	26	23	23

\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$ ;+ UK and GR excluded from model (lack of data for LMP expenditures);++ CZ, DK and SI excluded from model (lack of dependent variable)

Base category: for unemployed – employed, for age 16-23 – age 24-29, for education level – secondary education, for immigrant – born in the country, for lives with children – lives without children, for lives with partner/spouse – lives without partner/spouse



Table C. 2: Economic situation of young temporary workers: moderating role of EPL

	(1)	(2)	(3)	(4)	(5)	(6)
	Risk of poverty	Risk of poverty	Ends meet with difficulty	Ends meet with difficulty	Exclusion from social life	Exclusion from social life
Temporary work	0.049	0.052***	-0.069	0.022	-0.106*	0.036
Age 16-23 (binary)	0.039***	0.039***	-0.006	-0.006	0.002	0.003
Education: at least lower secondary	0.085***	0.085***	0.122***	0.121***	0.111***	0.111***
Education: tertiary	-0.033***	-0.033***	-0.107***	-0.107***	-0.118***	-0.117***
Sex: female	-0.004	-0.004	0.010	0.010	0.043***	0.043***
Immigrant	0.041***	0.041***	0.081***	0.080***	0.069***	0.069***
Lives with children	0.003	0.003	0.068***	0.068***	0.101***	0.101***
Lives with partner/spouse	-0.071***	-0.071***	-0.058***	-0.058***	-0.033***	-0.034***
HH work intensity status	-0.180***	-0.180***	-0.093***	-0.093***	-0.112***	-0.112***
GDP per capita	0.0003	0.0002	-0.008**	-0.009**	-0.005*	-0.005*
EPL for regular contracts	0.028	0.031	-0.007	0.013	-0.070	-0.060
Temporary work # EPL for regular contracts	-0.0004		0.042*		0.057**	
EPL ratio		-0.012		-0.048		0.019
Temporary work # EPL ratio		-0.003		0.005		-0.007
Constant	0.680***	0.696***	0.835***	0.879***	0.866***	0.808***
Log lik.	-2816.9	-2816.3	-5146.1	-5147.6	-4293.3	-4296.9
Country variance	0.002 (0.001)	0.002 (0.001)	0.020 (0.006)	0.019 (0.006)	0.010 (0.003)	0.009 (0.003)
Observations	11833	11833	11833	11833	9670	9670
N of countries	22	22	22	22	19	19

\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$ ; + BG, HR, CY, LT, MT, RO excluded from analysis because of the lack of EPL indicators; ++ CZ, DK and SI excluded from model (lack of dependent variable)

Base category: for temporary work - permanent, for age 16-23 – age 24-29, for education level – secondary education, for immigrant – born in the country, for lives with children – lives without children, for lives with partner/spouse – lives without partner/spouse



## No.15 – The impact of the institutional setting and policies on the economic situation of youth in insecure labour market positions in EU-28 & Ukraine

Table C. 3: Economic situation of young temporary workers: moderating role of trade unions

	(1)	(2)	(3)
	Risk of poverty	Ends meet with difficulty	Exclusion from social life
Temporary work	0.030*	0.043**	0.055***
Age 16-23 (binary)	0.036***	-0.004	-0.0002
Education: at least lower secondary	0.090***	0.123***	0.121***
Education: tertiary	-0.034***	-0.116***	-0.123***
Sex: female	-0.005	0.007	0.037***
Immigrant	0.040***	0.062***	0.050***
Lives with children	0.007	0.071***	0.087***
Lives with partner/spouse	-0.068***	-0.059***	-0.026**
HH work intensity status	-0.181***	-0.098***	-0.113***
GDP per capita	0.0006	-0.009**	-0.006**
Trade union density	-0.0006	-0.001	-0.001
Temporary work # trade union density	0.0007*	-0.0008	-0.001*
Constant	0.758***	0.904***	0.797***
Log lik.	-3159.6	-6092.6	-5213.7
Country variance	0.002 (0.001)	0.019 (0.006)	0.013 (0.004)
Observations	13295	13295	11116
N of countries	28	28	25

\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$ ; ++ CZ, DK and SI excluded from model (lack of dependent variable)

Base category: for temporary work – permanent work, for age 16-23 – age 24-29, for education level – secondary education, for immigrant – born in the country, for lives with children – lives without children, for lives with partner/spouse – lives without partner/spouse



Table C. 4: Effect of crisis for unemployed and temporary workers

	(1)		(2)
	Ends meet with difficulty		Ends meet with difficulty
Unemployed = 1	0.094***	Temporary work = 1	0.033***
Age	0.015***	Age	0.003
Education: lower secondary	0.114***	Education: lower secondary	0.121***
Education: tertiary	-0.099***	Education: tertiary	-0.108***
Sex: female	0.011**	Sex: female	0.008*
Immigrant	0.042***	Immigrant	0.043***
Lives with children	0.061***	Lives with children	0.061***
Lives with partner/spouse	-0.065***	Lives with partner/spouse	-0.060***
HH work intensity status	-0.086***	HH work intensity status	-0.091***
Year 2007	-0.030***	Year 2007	-0.038***
Year 2013	0.007	Year 2013	0.014**
Unemployed # Y 2007	-0.010	Temporary work # Y 2007	0.007
Unemployed # Y 2013	0.012	Temporary work # Y 2013	-0.007
Constant	0.592***	Constant	0.610***
Log lik.	-18531.1	Log lik.	-19730.5
Country variance	0.024 (0.007)		0.025 (0.007)
Observations	42157	Observations	44123
N of countries	28		28

\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

Base category: for unemployed – employed, for temporary work – permanent work, for age 16-23 – age 24-29, for education level – secondary education, for immigrant – born in the country, for lives with children – lives without children, for lives with partner/spouse – lives without partner/spouse, for year 2007 and 2013 – year 2010



## No.15 – The impact of the institutional setting and policies on the economic situation of youth in insecure labour market positions in EU-28 & Ukraine

Table C. 5: Moderating role of MLP for unemployed during crisis

	(1)	(2)
	Ends meet with difficulty	Ends meet with difficulty
Unemployed = 1	0.132***	0.141***
Age	0.014**	0.014**
Education: lower secondary	0.114***	0.115***
Education: tertiary	-0.099***	-0.099***
Sex: female	0.014***	0.014***
Immigrant	0.037***	0.038***
Lives with children	0.063***	0.062***
Lives with partner/spouse	-0.070***	-0.070***
HH work intensity status	-0.087***	-0.087***
Year 2007	-0.032***	-0.037***
Year 2013	0.004	0.0004
Exp on PLMP per person wanting to work, Euro PPS	0.008**	
Unemployed # exp. on PLPM	-0.011***	
Unemployed # exp. on PLPM # Y 2007	-0.002	
Unemployed # exp. on PLPM # Y 2013	0.0004	
Exp on ALMP per person wanting to work, Euro PPS		0.002
Unemployed # exp. on ALPM		-0.034***
Unemployed # exp. on ALPM # Y 2007		0.011
Unemployed # exp. on ALPM # Y 2013		0.006
Constant	0.553***	0.580***
Log lik.	-16923.7	-16914.2
Country variance	0.026 (0.008)	0.021 (0.006)
Observations	38978	38978
N of countries	25	25

\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$ ; + GR, HR and UK excluded from models (lack of data for LMP expenditures)

Base category: for unemployed – employed, for age 16-23 – age 24-29, for education level – secondary education, for immigrant – born in the country, for lives with children – lives without children, for lives with partner/spouse – lives without partner/spouse, for year 2007 and 2013 – year 2010



Table C. 6: Moderating role of EPL for temporary workers during crisis

	(1)
	Ends meet with difficulty
Temporary work = 1	0.045
Age	0.002
Education: lower secondary	0.122***
Education: tertiary	-0.105***
Sex: female	0.009*
Immigrant	0.054***
Lives with children	0.060***
Lives with partner/spouse	-0.064***
HH work intensity status	-0.089***
Year 2007	-0.032***
Year 2013	0.011*
EPL for regular contracts	-0.071***
Temporary work # EPL for reg.	0.0003
Temporary work # EPL for reg. # Y 2007	-0.002
Temporary work # EPL for reg. # Y 2013	-0.006
Constant	0.750***
Log lik.	-17804.3
Country variance	0.025 (0.0070)
Observations	40868
N of countries	25

\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$ ; + Depending on year BG, HR, CY, LT, LU, MT, RO excluded from analysis (the lack of EPL indicators)

Base category: for temporary work – permanent work, for age 16-23 – age 24-29, for education level – secondary education, for immigrant – born in the country, for lives with children – lives without children, for lives with partner/spouse – lives without partner/spouse, for year 2007 and 2013 – year 2010



## No.15 – The impact of the institutional setting and policies on the economic situation of youth in insecure labour market positions in EU-28 & Ukraine

Table C. 7: Moderating role of trade unions for temporary workers during crisis

	(1)
	Ends meet with difficulty
Temporary work = 1	0.055***
Age	0.003
Education: lower secondary	0.121***
Education: tertiary	-0.106***
Sex: female	0.008*
Immigrant	0.044***
Lives with children	0.060***
Lives with partner/spouse	-0.061***
HH work intensity status	-0.091***
Year 2007	-0.035***
Year 2013	0.008
Trade union density	-0.003**
Temporary work # trade union dens.	-0.001***
Temporary work # trade union dens.# Y 2007	0.0007*
Temporary work # trade union dens. # Y 2013	0.00002
Constant	0.689***
Log lik.	-19516.6
Country variance	0.023 (0.006)
Observations	43842
N of countries	28

\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

Base category: for temporary work – permanent work, for age 16-23 – age 24-29, for education level – secondary education, for immigrant – born in the country, for lives with children – lives without children, for lives with partner/spouse – lives without partner/spouse, for year 2007 and 2013 – year 2010



## Index of tables:

Table 1: Summary of hypotheses 1-2 and expected effect in the models .....	12
Table 2: Summary of hypotheses 3-4 and expected effect in the models .....	14
Table 3: Summary of hypotheses 5-9 and expected effect in the models .....	16
Table 4: Descriptive statistics for dependent variables .....	19
Table 5: Descriptive statistics for individual and household level variables.....	20
Table 6: Economic situation of unemployed youth: moderating role of PLMP and ALMP.....	45
Table 7: Economic situation of young temporary workers: moderating role of EPL .....	47
Table 8: Economic situation of young temporary workers: moderating role of trade unions .....	47
Table 9: Effects of crisis on unemployed and temporary workers .....	49
Table 10: Moderating impact of LMP on financial situations of unemployed during crisis.....	50
Table 11: Moderating impact of EPL on financial situations of temporary workers during crisis	51
Table 12: Moderating impact of trade unions on financial situations of temporary workers during crisis .....	52
Table A. 1: Macro indicators (part1)	
Table A. 2: Macro indicators (cont.)	
Table A. 3: Poverty indicators by employment status and country (% , 2013).....	59
Table A. 4: Poverty indicators by type of employment and country (% , 2013).....	60
Table B. 1: Economic situation of unemployed youth: moderating role of PLMP and ALMP .....	61
Table B. 2: Economic situation of young temporary workers: moderating role of EPL.....	62
Table B. 3: Economic situation of young temporary workers: moderating role of trade unions..	63
Table B. 4: Economic situation of young unemployed and youth working on temporary contracts during financial crisis .....	64
Table B. 5: Economic situation of young unemployed: moderating role of PLMP and ALMP during financial crisis .....	65
Table B. 6: Economic situation of young temporary workers: moderating role of EPL during financial crisis .....	66
Table B. 7: Economic situation of young temporary workers: moderating role of trade union density during financial crisis.....	67
Table C. 1: Economic situation of unemployed youth: moderating role of PLMP and ALMP .....	68
Table C. 2: Economic situation of young temporary workers: moderating role of EPL.....	69
Table C. 3: Economic situation of young temporary workers: moderating role of trade unions .	70
Table C. 4: Effect of crisis for unemployed and temporary workers .....	71
Table C. 5: Moderating role of MLP for unemployed during crisis .....	72
Table C. 6: Moderating role of EPL for temporary workers during crisis .....	73
Table C. 7: Moderating role of trade unions for temporary workers during crisis .....	74

## Index of graphs:

Figure 1: Specification of the analysis.....	24
Figure 2: Moderation effect of labour market policies and institutions .....	25
Figure 3: Poverty rates among unemployed and employed youth (2013/2014) .....	27
Figure 4: Young people excluded from social life by employment status (2013 %) .....	28
Figure 5: Young people excluded from social life by type of contract (2013 %) .....	29
Figure 6: Subjective financial situation by employment status (2013/2014, %).....	30
Figure 7: Subjective financial situation by employment type (2013 %).....	31
Figure 8: Out of poverty yearly transition rates by employment status (2010-2013) .....	31



## No.15 – The impact of the institutional setting and policies on the economic situation of youth in insecure labour market positions in EU-28 & Ukraine

Figure 9: Median equivalised net income before and after the crisis (in Euro).....	33
Figure 10: Young employed and unemployed in poverty (% 2007, 2010, anchored threshold). 33	
Figure 11: Ratio of unemployed/employed at risk of poverty before and after the crisis .....	35
Figure 12: Ratio of unemployed/ employed living in households with difficulties to make ends meet before and after the crisis.....	36
Figure 13: Ratio of temporary/permanent living in households with difficulties to make ends meet before and after the crisis.....	36
Figure 14: Poverty rates among unemployed and employed youth in Ukraine (2013/2014).....	39
Figure 15: Subjective financial situation by employment status in Ukraine (2013/2014, % of respondents aged 16-30 living in households with perceived estimate of income as not enough to provide food and basic needs) .....	40
Figure 16: Median equivalised household disposable income in 2006-2014, (Ukraine yearly data) .....	41
Figure 17: Ratio of the risk of poverty among before and after the crisis in Ukraine .....	41
Figure 18: Share of youth living in households with perceived estimate of income as not enough to provide food and basic needs in Ukraine before and after the crisis .....	42