

# European youths in the crisis: substitution vs. income effect

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- Motivation
- Related literature
- Model
- Data
- Methodology
- Results
- Future research steps

- The economic and financial crisis that erupted in 2008 has had adverse effects on labour market outcomes for most of the European population
  - Most countries faced large increases in unemployment and in particular youth unemployment
    - Low job creation and rigid labour markets have been blamed for the relatively more adverse effects of the crisis exerted on the young
  - Little evidence has been given to support the reaction of the young to the adverse conditions their households' members (parents) have faced due to the crisis
- *The main aim of this paper is to explore the response of youths to negative effects of the crisis on their families in Europe*

- Recession could have affected young people's participation on the labour market in two different ways:
  1. they could have decided to prolong or stay in education instead of participating on the labour market and thus increase their chances for future employment (when the economy recovers) or
  2. they could have decided to increase their participation on the labour market because the recession affected their household income when some other (older) household members were left without their job

- Some of the recent literature suggests that the recession could have brought to a **decline in the participation rate on the labour market** (eg., [Verick, 2011](#); [Dagsvik et al., 2013](#))
  - [Barakat et al. \(2010\)](#) discuss the influence of the recent crisis on European labour market perspectives and educational attainment decisions and indicate that the demand for education has increased because individuals tried to circumvent the tight labour market, while the supply of education has suffered because of the increased pressures on federal budgets in most European countries;
  - [Clark \(2011\)](#) assess the impact of the youth labour market on enrolment in post-compulsory education in the UK and concludes that local youth labour market has a large impact on enrolment rates and is capable of explaining why enrolment has been broadly flat since the mid-1990s, but also that a weakening youth labour market could cause enrolment to increase again;
  - [Bergin et al. \(2015\)](#) show that young people in Ireland are much less likely to exit unemployment while simultaneously having a lower risk of becoming unemployed; they demonstrate that education has become an increasingly important factor in supporting unemployment exits and reducing the risk of unemployment since the recession;
  - [Conefrey \(2011\)](#) further finds that the majority of young people who exited the labour force after the recession in 2008, and who remained in Ireland, returned to education.

- **Added worker effect** is present in the literature for a long time ([Humphrey, 1940](#); [Woytinsky, 1940](#); [Katz, 1961](#); [Lundberg, 1985](#); [Maloney, 1990](#); [Stephens, 2002](#); or [Bredtmann et al., 2014](#)). It is usually concentrated on the response of wives to husbands' job loss, being the dominant mechanism of households' adaptation to adverse conditions; however, there are some works that discuss children's response:
  - [Bentolila and Ichino \(2008\)](#) find no evidence of children's labour supply reaction to the male head of the household's job loss;
  - [Becker et al. \(2010\)](#), on a panel of 13 EU countries from 1983 to 2004, show that higher youth job insecurity lowers the probability of moving out of parental home, whereas higher parental job insecurity raises it;
  - [Cho and Newhouse \(2012\)](#) examine the impact of the Great Recession on different types of workers in 17 middle-income countries and show that there is little indication of strong added worker effects, suggesting that the informal sector played a relatively small role as a buffer for the shock:
    - Youths "generally suffered the largest adverse impacts on employment, unemployment, and sector and status of employment, particularly relative to older adults";
    - Little evidence of large earnings reductions for youths, suggesting that adjustments mainly took the form of employment reductions;
    - Less access to labour market information might lead youths to delay adjusting reservation wages, so they likely benefit more than adults from parental support during the downturn.

- We consider what happens to young people in relation to the change of the labour market status of their parents in the following two cases:
- **1<sup>st</sup> case:** *prolonging or staying in education instead of participating on the labour market*
  - **substitution effect:** substituting labour market participation (and potential unemployment) for education
    - the main assumption here is that the education may be more attractive when the youth labour market is weak ([Clark, 2011](#))
  - **human capital effect:** by staying in education youths are actually increasing their human capital
  - **discouraged worker effect:** young people are discouraged to participate in the labour market in harsh economic conditions and thus search for alternatives

➤ **2<sup>nd</sup> case:** *increased participation on the labour market because the recession affected household income*

- **income effect:** due to lower income in the household more youths decide to search for a job, i.e., to participate on the labour market
- **added worker effect:**
  - recent crisis has induced behavioural changes within youth population, so youths could become 'secondary' workers in the household who decide to participate on the labour market when the household income decreases due to job loss of another (primary worker) household member:
    - they substitute their leisure/education/inactivity for work because of the drop of income in the household
  - it results when the income effect dominates the substitution effect in an individual's decision whether or not to participate in the labour market
    - although the prospects of earnings (and employment) are decreasing in the time of the recession, the negative income effect is stronger than "the relative decline in the 'expected' wage rate of the secondary worker"
    - the expected welfare benefits of the household are smaller than the potential earnings of the secondary worker



- On the one hand we look at the composition of youth population at a point in time and, on the other, at changes of their labour market status over time
  - Not only employment status, but hours of work could also prove to be important (see [Blundell et al., 2013](#) for the decomposition of the overall movements in total hours of work into extensive and intensive margins of labour supply)
    - for youths it is relevant to observe the change in the status, not in the number of hours worked since they are mostly without relevant work experience
  - Also, one has to take into account job search behaviour of youth individuals, both in relation to the external shock (crisis) and regarding the household composition and its income level
- Institutional factors affect labour market efficiency, and individuals' decision making process is under influence of alternative possibilities
  - The institutions can enable certain types of young persons' transitions and discourage other
  - Similarly, welfare system is related to the consequences of parent's transition to unemployment or inactivity

- We acknowledge this by analysing the processes under different welfare system regimes, the countries being classified following [Bonoli \(1997\)](#) into two groups:
  1. **Continental Europe (or “low unemployment countries”)**: Belgium, France, Netherlands + Austria (not considered by Bonoli) and UK (classified as Anglo-Saxon)
  2. **Southern Europe (or “high unemployment countries”)**: Greece, Italy, Spain, Portugal + Croatia (post-transition country)
    - we divide the sample into low unemployment and high unemployment countries, to incorporate the notion that youth decision making process might be systematically different when faced with unfavourable local economic conditions
    - no panel or longitudinal component in the data  $\Rightarrow$  **labour market status in the previous year** to define transitions

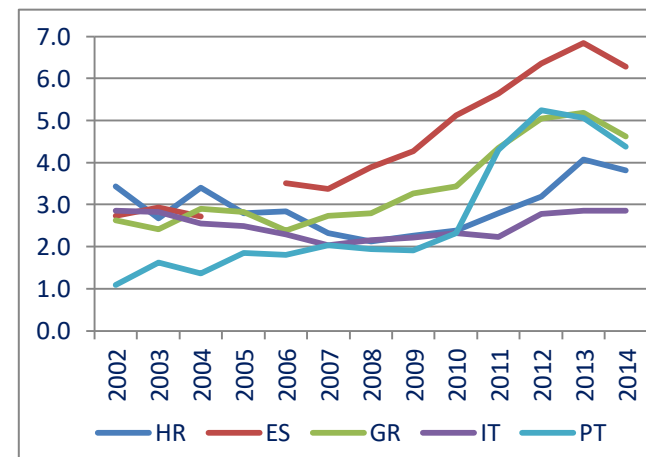
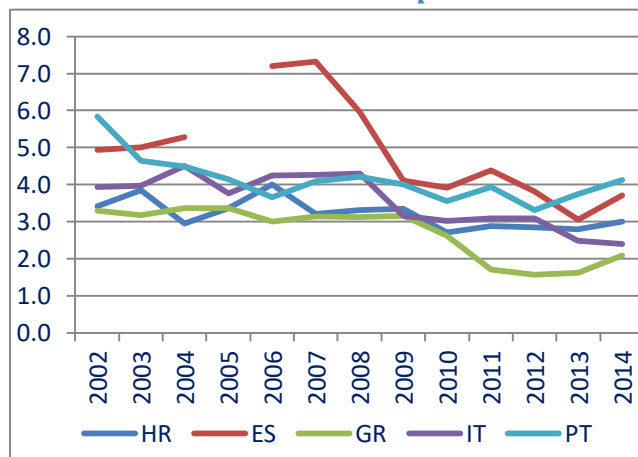
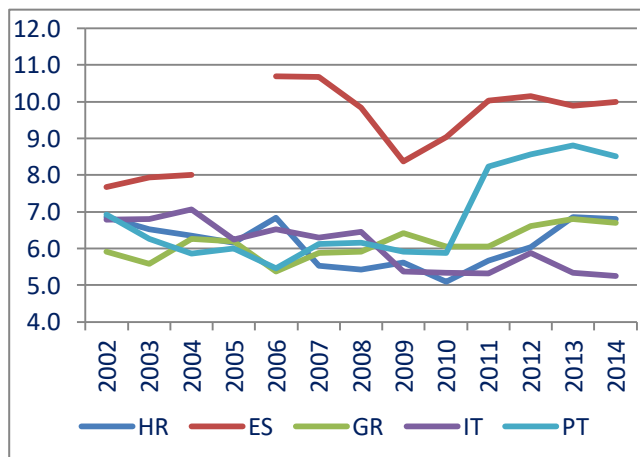
## Transitions of youth population from:

*inactivity to activity (%)*

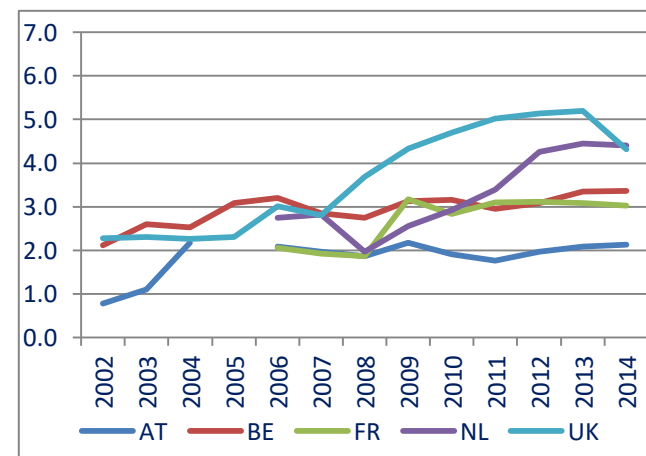
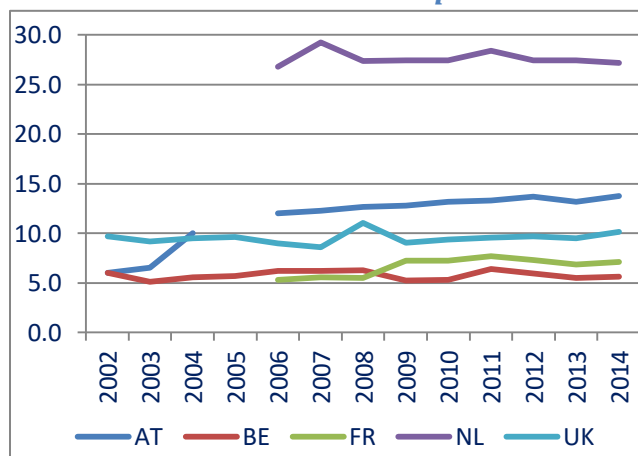
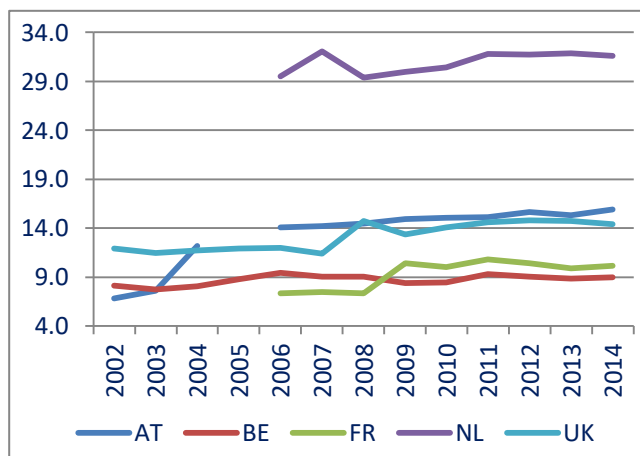
*inactivity to employment (%)*

*inactivity to unemployment (%)*

### Southern Europe



### Continental Europe



Source: Authors' calculations based on EU-LFS data.

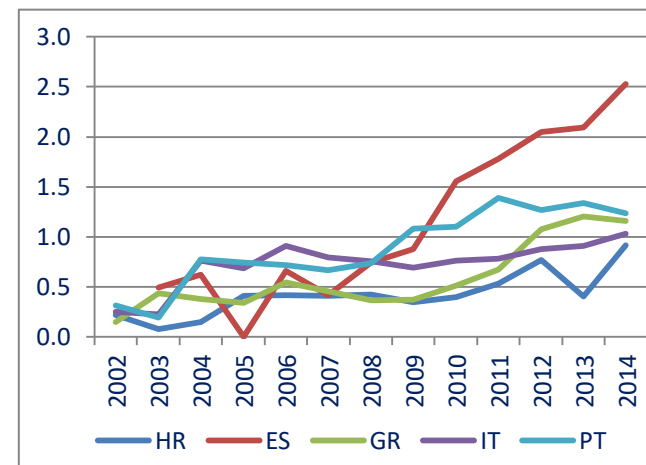
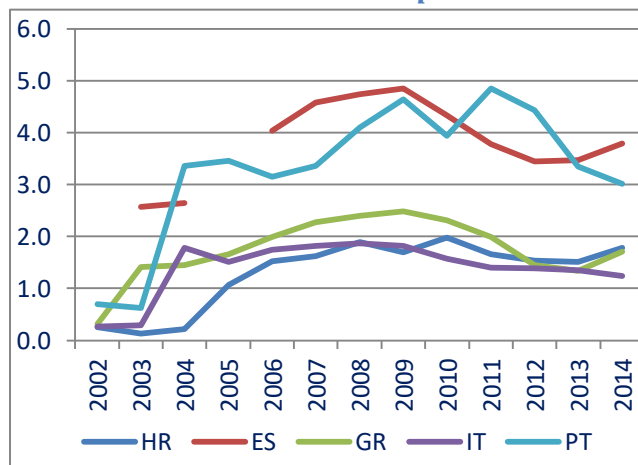
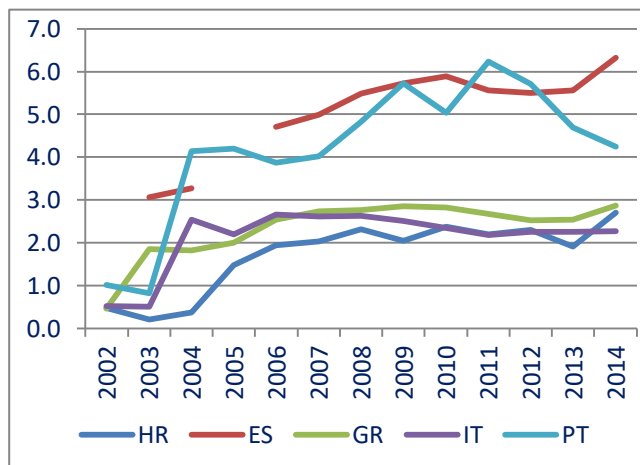
## Transitions of youth population from:

activity to education (%)

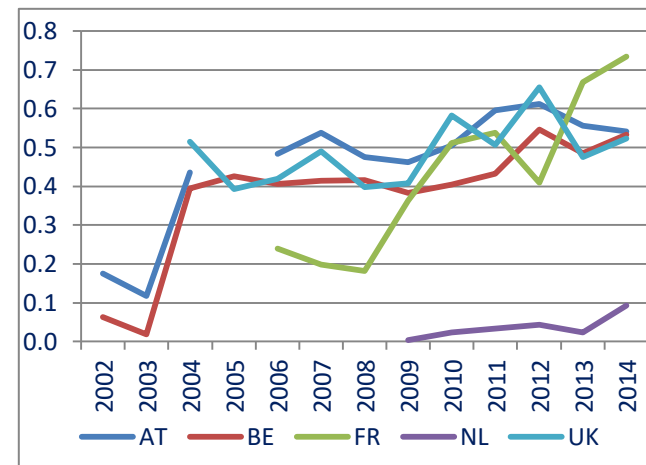
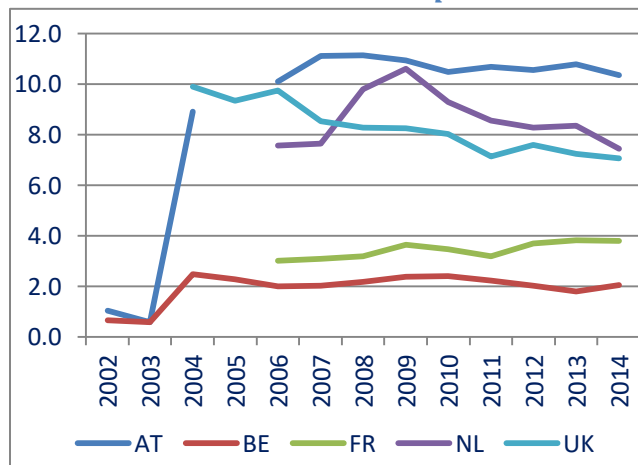
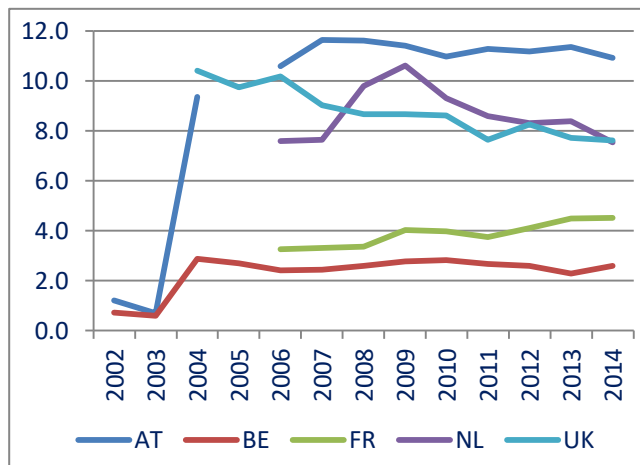
employment to education (%)

unemployment to education (%)

*Southern Europe*



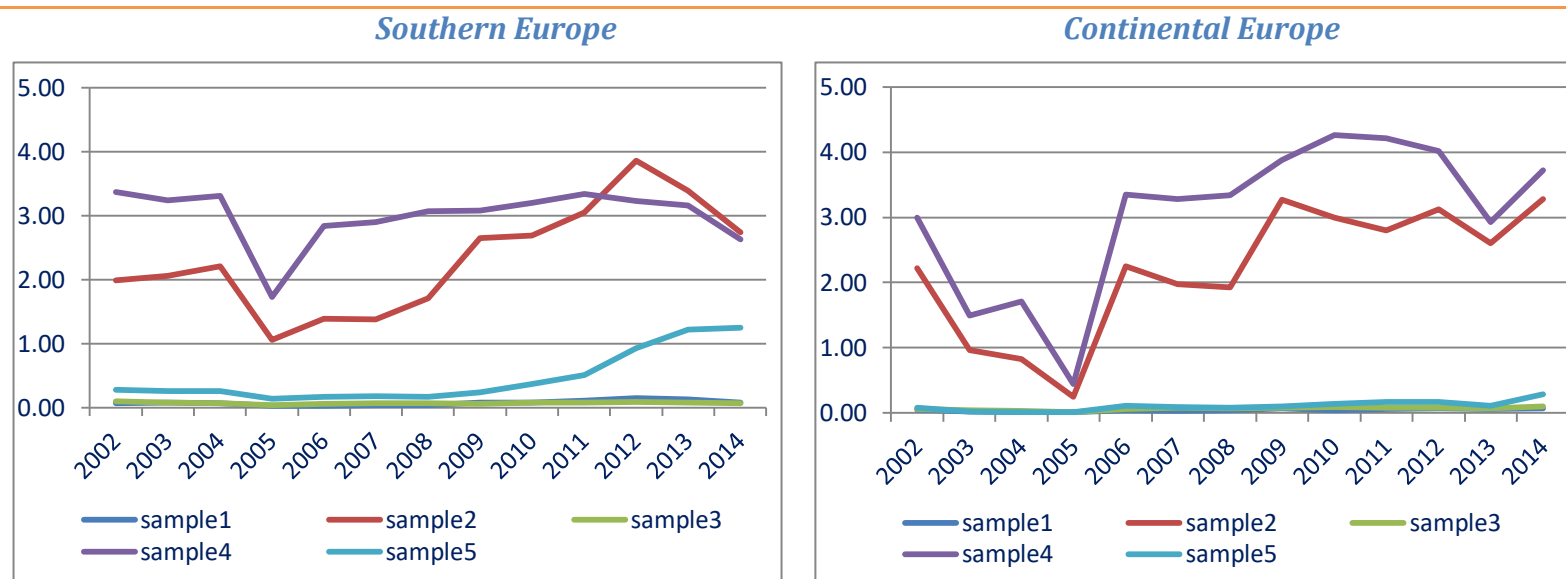
*Continental Europe*



Source: Authors' calculations based on EU-LFS data.

- In order to address this issue we analyse the response of youths to different changes in parents' labour market status:
  - i. both parents losing the job (*sample1*)
  - ii. one of the parents losing the job (*sample2*)
  - iii. both parents becoming inactive (*sample3*)
  - iv. one of the parents becoming inactive (*sample4*)
  - v. both parents remaining unemployed (*sample5*)
    - *observed only for those that live in the same household!!!*

## Transitions of parents (%)



*sample1: both parents: employment  $\Rightarrow$  unemployment*

*sample2: one of the parents: employment  $\Rightarrow$  unemployment*

*sample3: both parents: employment  $\Rightarrow$  inactivity*

*sample4: one of the parents: employment  $\Rightarrow$  inactivity*

*sample5: both parents: stay unemployed*

Source: Authors' calculations based on EU-LFS data.

- EU Labour Force Survey data in the period 2009-2014 for 10 countries
  - 2 country groups: Southern Europe & Continental Europe
- The dependent dummy variable in each specification equals 1 if the data reveals transition of a young (15-29) person and zero otherwise
  - There are 3 distinct transitions, leading to 3 dependent variables (**2<sup>nd</sup> case**):
    - *youth1*: inactivity  $\Rightarrow$  activity
    - *youth2*: inactivity  $\Rightarrow$  employment
    - *youth3*: inactivity  $\Rightarrow$  unemployment
- Estimation is carried out both on the overall and on restricted samples, defined by the transitions of the young persons' parents (*sample1 – sample5*)

- For each type of transition of the parents (i.e., within each sample) we try to identify predictors contributing to the transition of the young person:
  - age
    - 5-year age cohorts (15-19, 20-24, 25-29)
    - proxy for work experience
  - gender
  - education
    - 3 groups: low, medium, high
  - marital status
  - nationality
  - degree of urbanisation
  - share of dependent (<15 & >64) persons in the household
  - share of (adult) persons in working relationship in the household
  - country dummies
  - year dummies



## Descriptive statistics

High sample	2009-2014 (15-29)		sample2		sample4		Low sample	2009-2014 (15-29)		sample2		sample4	
Variable	Mean	Std.Dev.	Mean	Std.Dev.	Mean	Std.Dev.	Variable	Mean	Std.Dev.	Mean	Std.Dev.	Mean	Std.Dev.
youth1	0.077	0.267	0.102	0.302	0.082	0.274	youth1	0.174	0.379	0.176	0.381	0.151	0.358
youth2	<b>0.035</b>	0.184	<b>0.029</b>	0.167	<b>0.041</b>	0.197	youth2	<b>0.134</b>	0.340	<b>0.115</b>	0.319	<b>0.109</b>	0.312
youth3	0.042	0.201	0.073	0.260	0.041	0.199	youth3	0.041	0.198	0.061	0.240	0.042	0.201
age15_19	<b>0.383</b>	0.486	<b>0.465</b>	0.499	0.293	0.455	age15_19	<b>0.534</b>	0.499	<b>0.561</b>	0.496	<b>0.442</b>	0.497
age20_24	0.350	0.477	0.355	0.478	<b>0.353</b>	0.478	age20_24	0.345	0.475	0.346	0.476	0.355	0.478
age25_29	0.268	0.443	0.180	0.384	<b>0.354</b>	0.478	age25_29	0.121	0.326	0.093	0.291	0.203	0.402
male	0.537	0.499	0.542	0.498	0.542	0.498	male	0.550	0.498	0.568	0.495	0.540	0.498
married	0.008	0.088	0.011	0.106	0.007	0.086	married	0.009	0.097	0.009	0.096	0.010	0.098
nation	0.944	0.230	0.837	0.370	0.947	0.224	nation	0.962	0.192	0.919	0.273	0.946	0.225
edu_low	0.423	0.494	<b>0.538</b>	0.499	0.379	0.485	edu_low	0.377	0.485	<b>0.462</b>	0.499	0.352	0.478
edu_medium	0.402	0.490	0.309	0.462	<b>0.414</b>	0.493	edu_medium	0.439	0.496	0.394	0.489	<b>0.436</b>	0.496
edu_high	0.151	0.358	0.103	0.304	0.192	0.394	edu_high	0.139	0.346	0.104	0.305	0.181	0.385
dep_share	0.088	0.139	0.095	0.135	0.078	0.138	dep_share	0.102	0.164	0.111	0.164	0.104	0.170
work_share	0.441	0.247	0.247	0.200	0.291	0.212	work_share	<b>0.565</b>	0.269	0.338	0.226	0.362	0.221
urb_dens	0.403	0.491	0.417	0.493	0.381	0.486	urb_dens	0.484	0.500	<b>0.552</b>	0.497	0.495	0.500
urb_inter	<b>0.597</b>	0.491	<b>0.583</b>	0.493	<b>0.619</b>	0.486	urb_inter	0.516	0.500	0.448	0.497	0.505	0.500
croatia	0.040	0.196	0.034	0.181	0.032	0.177	austria	0.071	0.257	0.064	0.245	0.097	0.295
spain	0.333	0.471	<b>0.581</b>	0.493	0.321	0.467	belgium	0.080	0.272	0.047	0.212	0.067	0.250
greece	0.084	0.277	0.081	0.273	0.076	0.265	france	0.372	0.483	0.424	0.494	0.425	0.494
italy	<b>0.464</b>	0.499	0.206	0.404	<b>0.513</b>	0.500	netherland	0.123	0.328	0.132	0.338	0.092	0.288
portugal	0.079	0.270	0.098	0.297	0.058	0.234	britain	0.353	0.478	0.333	0.471	0.320	0.466
yr2009	0.175	0.380	0.197	0.398	0.186	0.389	yr2009	0.167	0.373	0.177	0.382	0.172	0.377

High sample	2009-2014 (15-29)		sample2		sample4		Low sample	2009-2014 (15-29)		sample2		sample4	
Variable	Mean	Std.Dev.	Mean	Std.Dev.	Mean	Std.Dev.	Variable	Mean	Std.Dev.	Mean	Std.Dev.	Mean	Std.Dev.
<b>yr2010</b>	0.171	0.377	0.158	0.365	0.169	0.375	<b>yr2010</b>	0.169	0.375	0.183	0.387	0.176	0.381
<b>yr2011</b>	0.168	0.374	0.161	0.367	0.169	0.375	<b>yr2011</b>	0.164	0.371	0.144	0.352	0.189	0.392
<b>yr2012</b>	0.164	0.371	0.178	0.383	0.170	0.376	<b>yr2012</b>	0.166	0.372	0.170	0.376	0.158	0.365
<b>yr2013</b>	0.161	0.368	0.170	0.376	0.169	0.375	<b>yr2013</b>	0.166	0.372	0.149	0.356	0.163	0.370
<b>yr2014</b>	0.160	0.367	0.135	0.341	0.137	0.343	<b>yr2014</b>	0.168	0.374	0.176	0.381	0.142	0.349
<b>sample1</b>	0.001	0.036					<b>sample1</b>	0.0004	0.020				
<b>sample2</b>	<b>0.036</b>	0.187					<b>sample2</b>	<b>0.025</b>	0.155				
<b>sample3</b>	0.001	0.028					<b>sample3</b>	0.001	0.028				
<b>sample4</b>	<b>0.035</b>	0.184					<b>sample4</b>	<b>0.032</b>	0.176				
<b>sample5</b>	0.011	0.104					<b>sample5</b>	0.001	0.035				
<b>No. of obs.</b>	726,110		20,371		24,964		<b>No. of obs.</b>	284,899		6,273		9,393	

*youth1: inactivity  $\Rightarrow$  activity*

*youth2: inactivity  $\Rightarrow$  employment*

*youth3: inactivity  $\Rightarrow$  unemployment*

*sample1: both parents: employment  $\Rightarrow$  unemployment*

*sample2: one of the parents: employment  $\Rightarrow$  unemployment*

*sample3: both parents: employment  $\Rightarrow$  inactivity*

*sample4: one of the parents: employment  $\Rightarrow$  inactivity*

*sample5: both parents: stay unemployed*

*Source: Authors' calculations based on EU-LFS data.*

- **Probit model** is used for estimating the contribution of different characteristics to youth probability of transition into activity:

$$P_r(Y_i = 1) = \Phi(Y_i^*)$$

$$Y_i^* = \beta X_i + \varepsilon_i \text{ with } Y_i = \begin{cases} 1 & \text{if } Y_i^* > 0 \\ 0 & \text{otherwise} \end{cases}$$

$$P_r(Y_i = 1 | X) = \Phi(X' \beta)$$

- To facilitate interpretation, we convert the derived coefficients into **marginal effects**, evaluating the impact of each variable at average values for all the regression predictors
- The estimation strategy consists of two segments

1. In the first segment, we utilize the **whole sample** (15-29). The dependent variable is a specific transition of youths (*youth1*, *youth2* or *youth3*), the independent list of variables has been previously described and amended with additional dummy variable representing observed transition of the parents (*sample1*, *sample2*, ...):

- the probability of observing a transition from inactivity to activity of a young person with respect to those staying inactive for each individual on the basis of a series of individual and household characteristics ( $X$ ), and depending on the change of labour market status of their parents (*sample<sub>i</sub>*):

$$\Pr(y = 1) = \Phi(X' \beta + sample_i' \gamma)$$

- 5 estimates for each type of youth transition, depending on the included additional dummy for the transition of the parents
  - this type of exercise resembles traditional approach to estimating added worker effect in gender-related studies
  - it has been separately estimated for the two groups of countries and in table below we present only the marginal effects of the parents' transition dummy variable

2. The second segment of the empirical strategy looks closely into the characteristics of the youths who have made transitions, in cases when their parents have changed their labour market status

- Thus, we again estimate probit models with dependent variable representing youth transitions, the same list of independent variables (without dummy variable for parents' transition), but on a restricted sample based on the transition of parents:

$$\Pr(y = 1 | sample_i) = \Phi(X' \beta)$$

- This again yields 5 estimates (on 5 different samples) for each considered youth transition
  - We present here only the estimates based on two samples (*sample2*: one of the parents changes status from employment to unemployment & *sample4*: one of the parents changes status from employment to inactivity) given the rather low frequency of other transitions of parents observed in our data

## 1<sup>st</sup> segment: *whole sample (15-29)*

Marginal effects	<i>youth1</i> inactivity ⇒ activity		<i>youth2</i> inactivity ⇒ employment		<i>youth3</i> inactivity ⇒ unemployment	
	High countries	Low countries	High countries	Low countries	High countries	Low countries
<i>sample1</i> (both parents: employment ⇒ unemployment)	0.028* (0.016)	0.080 (0.049)	0.003 (0.009)	0.137*** (0.038)	-0.001 (0.009)	-0.046** (0.021)
<i>sample2</i> (one of the parents: employment ⇒ unemployment)	0.029*** (0.003)	0.067*** (0.007)	0.015*** (0.002)	0.064*** (0.005)	0.005*** (0.002)	-0.002 (0.003)
<i>sample3</i> (both parents: employment ⇒ inactivity)	0.024* (0.014)	0.068* (0.039)	0.034*** (0.005)	0.126*** (0.031)	-0.020* (0.012)	-0.051*** (0.015)
<i>sample4</i> (one of the parents: employment ⇒ inactivity)	0.011*** (0.003)	0.048*** (0.006)	0.018*** (0.00114)	0.067*** (0.005)	-0.011*** (0.002)	-0.015*** (0.003)
<i>sample5</i> (both parents: stay unemployed)	0.038*** (0.005)	0.122*** (0.034)	0.024*** (0.003)	0.119*** (0.027)	-0.002 (0.003)	-0.008 (0.012)

Robust standard errors in parentheses. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1.

Source: Authors' calculations based on EU-LFS data.

- The analysis has revealed significant response of youth transitions into activity when parents' transitions are taken into consideration
- In general:
  - The probability of changing the status from inactivity to activity and/or employment for youths is positively affected by the change of the status of their parents (living in the same household) towards unemployment/inactivity
    - The opposite is true for the probability of changing the status from inactivity to unemployment for youths
      - In high unemployment countries – when one of the parents loses a job (*sample2*), the probability that the child will turn to labour market (and successfully find a job or become unemployed) is always positive – indicating a clear **added worker effect**
  - Transitions of youths are more responsive to the transitions of their parents in low unemployment countries
    - Marginal effects are also higher for the transition from inactivity to unemployment in low unemployment countries (except in one case)
      - possibly related to the choice of longer education or
      - low unemployment countries typically create more job opportunities for youths

## 2<sup>nd</sup> segment: *sample2* - one of the parents becomes unemployed

High countries	youth1	youth2	youth3	Low countries	youth1	youth2	youth3
age20_24	-0.017* (0.010)	-0.002 (0.002)	-0.014* (0.008)	age20_24	-0.098*** (0.019)	-0.067*** (0.011)	-0.021** (0.011)
age25_29	-0.109*** (0.013)	-0.018*** (0.003)	-0.073*** (0.011)	age25_29	-0.219*** (0.035)	-0.134*** (0.021)	-0.055*** (0.019)
male	0.008 (0.008)	-0.002 (0.002)	0.010 (0.006)	male	-0.026* (0.014)	-0.020** (0.009)	-0.0001 (0.008)
married	-0.054 (0.037)	-0.004 (0.006)	-0.046 (0.039)	married	0.052 (0.094)	0.064 (0.067)	0.004 (0.024)
nation	0.009 (0.015)	0.005 (0.004)	0.001 (0.012)	nation	-0.037 (0.026)	0.008 (0.019)	-0.025* (0.014)
edu_medium	0.097*** (0.010)	0.017*** (0.002)	0.061*** (0.009)	edu_medium	0.097*** (0.016)	0.046*** (0.011)	0.033*** (0.010)
edu_high	0.162*** (0.013)	0.025*** (0.003)	0.108*** (0.011)	edu_high	0.208*** (0.030)	0.091*** (0.018)	0.078*** (0.016)
dep_share	0.048 (0.033)	0.039*** (0.009)	-0.013 (0.026)	dep_share	0.038 (0.039)	0.052** (0.021)	-0.055* (0.032)
work_share	0.026 (0.021)	0.072*** (0.007)	-0.131*** (0.016)	work_share	0.269*** (0.036)	0.368*** (0.025)	-0.168*** (0.019)
urb_inter	0.004 (0.008)	0.003 (0.002)	-0.002 (0.006)	urb_inter	-0.007 (0.015)	-0.010 (0.009)	0.002 (0.008)
croatia	-0.039*** (0.012)	-0.003 (0.003)	-0.035*** (0.011)	austria	0.020 (0.020)	0.025** (0.013)	-0.018 (0.012)
spain	0.023*** (0.008)	-4.35e-06 (0.002)	0.021*** (0.007)	belgium	-0.028 (0.024)	0.031** (0.015)	-0.047*** (0.014)



High countries	youth1	youth2	youth3	Low countries	youth1	youth2	youth3
greece	-0.017** (0.007)	-0.002 (0.002)	-0.011* (0.006)	france	0.002 (0.021)	0.031** (0.013)	-0.024** (0.011)
italy	-0.020*** (0.007)	0.00127 (0.002)	-0.022*** (0.006)	netherlands	0.189*** (0.017)	0.117*** (0.010)	0.016 (0.010)
Observations	20,371	20,371	20,371	Observations	6,273	6,273	6,273
ll	-913.5	-301.7	-724.7	ll	-652.6	-425.3	-333.2
chi2	277.4	494.0	241.1	chi2	467.2	725.4	126.5
p	0	0	0	p	0	0	0
r2_p	0.0727	0.224	0.0753	r2_p	0.116	0.248	0.0872

Robust standard errors in parentheses. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1.

Year dummies also included but not presented in order to save space.

Source: Authors' calculations based on EU-LFS data.

- Common results for the transition of youths in both low and high unemployment countries in the case when one of the parents loses a job are:
  - negatively associated with age
    - the older the person is (as compared to the 15-19 age-group) the lower the probability of changing the status from inactivity to activity (employment/unemployment);
  - positively associated with the level of education
    - the more educated is the young person more likely it will make transition;
  - the share of dependent household members is positively associated with transition of youth from inactivity to employment and negatively with transition to unemployment, thus indicating **relative pressure from household members to contribute to family income**;

- the share of working household members has the same effect (more emphasized in low unemployment countries)
  - the transition to employment is more likely the higher the share of working household members, capturing a certain **demonstration effect**;
  - the transition of youths from inactivity to unemployment is less likely the higher the share of working household members, indicating a certain **safety net effect**
    - to further explore this second relationship, a deeper insight into job search behaviour patterns changes is probably needed
- Main differences in the results between low and high unemployment countries in the case when one of the parents loses a job are:
  - Males (in comparison to females) have lower probability of becoming active (employed/unemployed) in low unemployment countries (this is the case only in transition to employment in high unemployment countries but not significant)
  - Home nationality is significant only in the case of transitioning to unemployment in low unemployment countries, with a negative sign
  - In comparison to Portugal, youths in Croatia, Greece and Italy have lower probability of becoming active/unemployed, whereas those in Spain have higher probability
  - In comparison to UK, youths in Austria, Belgium, France and Netherlands have higher probability of becoming employed, while youths in Belgium and France have lower probability of becoming unemployed

## 2<sup>nd</sup> segment: *sample4* - one of the parents becomes inactive

High countries	youth1	youth2	youth3	Low countries	youth1	youth2	youth3
age20_24	-0.011 (0.009)	-0.009** (0.004)	-0.004 (0.005)	age20_24	-0.071*** (0.014)	-0.057*** (0.009)	-0.003 (0.006)
age25_29	-0.059*** (0.009)	-0.028*** (0.004)	-0.020*** (0.005)	age25_29	-0.258*** (0.018)	-0.173*** (0.012)	-0.039*** (0.008)
male	0.009* (0.005)	0.001 (0.002)	0.005 (0.003)	male	0.009 (0.010)	-0.001 (0.007)	0.006 (0.005)
married	-0.074*** (0.027)	-0.022 (0.014)	-0.036* (0.020)	married	0.058 (0.070)	-0.010 (0.022)	0.036 (0.028)
nation	0.004 (0.023)	0.018*** (0.006)	-0.008 (0.012)	nation	-0.025 (0.021)	-0.018 (0.012)	-0.010 (0.010)
edu_medium	0.071*** (0.008)	0.026*** (0.003)	0.030*** (0.005)	edu_medium	0.084*** (0.013)	0.046*** (0.009)	0.017*** (0.006)
edu_high	0.144*** (0.009)	0.050*** (0.004)	0.062*** (0.006)	edu_high	0.211*** (0.019)	0.114*** (0.013)	0.046*** (0.008)
dep_share	0.034* (0.018)	0.034*** (0.010)	-0.010 (0.011)	dep_share	0.020 (0.023)	0.032** (0.015)	-0.045*** (0.017)
work_share	0.054*** (0.013)	0.106*** (0.007)	-0.099*** (0.008)	work_share	0.243*** (0.026)	0.323*** (0.019)	-0.119*** (0.012)
urb_inter	-0.008 (0.005)	-0.008*** (0.002)	0.003 (0.003)	urb_inter	0.023** (0.011)	0.010 (0.007)	0.008 (0.005)
croatia	-0.029*** (0.011)	-0.012** (0.006)	-0.012* (0.006)	austria	0.013 (0.014)	0.022** (0.009)	-0.020*** (0.007)
spain	-0.008 (0.008)	-0.004 (0.003)	-0.002 (0.005)	belgium	-0.024 (0.016)	0.007 (0.011)	-0.026*** (0.008)

High countries	youth1	youth2	youth3	Low countries	youth1	youth2	youth3
greece	-0.017** (0.007)	-0.007** (0.003)	-0.009** (0.004)	france	-0.013 (0.015)	0.012 (0.010)	-0.021*** (0.006)
italy	-0.034*** (0.006)	-0.002 (0.003)	-0.027*** (0.004)	netherlands	0.159*** (0.013)	0.108*** (0.009)	0.010 (0.007)
Observations	24,964	24,964	24,964	Observations	9,393	9,393	9,393
ll	-751.4	-401.0	-447.5	ll	-758.4	-550.2	-319.3
chi2	484.4	650.1	390.2	chi2	541.1	826.2	180.5
p	0	0	0	p	0	0	0
r2_p	0.0895	0.190	0.106	r2_p	0.140	0.231	0.120

Robust standard errors in parentheses. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1.

Year dummies also included but not presented in order to save space.

Source: Authors' calculations based on EU-LFS data.

- Transitions of youths in low and high unemployment countries in cases when one of the parents becomes inactive are similar to those when one of the parents loses a job
- The main differences arise in the following cases:
  - Males have higher probability, while married youths have lower probability, of becoming active (and unemployed) in high unemployment countries;
  - Natives have higher probability of becoming employed (in cases when one of the parents becomes inactive) in high unemployed countries, while those in less urban areas have lower probability of becoming employed
    - In low unemployment countries those in less urban areas have higher probability of becoming active

- The analysis has revealed significant response of youth transitions on the labour market when parents' transitions are taken into consideration
- There are important differences between European economies: transitions of youths are more responsive to transitions of their parents in low unemployment countries (Continental Europe)
  - However, lower share of those that live in the same household in these countries
  - Institutional factors, together with labour market features, might be at play here
  - Deeper insight into job search behaviour patterns changes is probably needed
  - ...

- When considering youths who have made transition in response to one of the parents losing a job or becoming inactive, similar predictors are important in low and high unemployment countries
  - Higher education of young individuals
  - Family conditions: the share of financially dependent or working household members
- There seems to be added worker effect also for young persons living in the same household with their parents
  - In the case when one of the parents loses a job (becomes unemployed), the probability that the child will turn to labour market is always positive in high unemployment countries
- Future research efforts will also include the discussion of the substitution effect

**Thank you for your attention.**

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