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The impact of economic crises on youth unemployment in rural areas of the European Union

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Abstract

Aim: The objective of this study was to research the vulnerability of youth unemployment in rural areas of the European Union to the global financial crisis of 2007 and COVID-19 pandemic.

Methodology: The Eurostat data were used to show the differences in unemployment rates of young people in rural areas before and after the financial crisis of 2007 and the COVID-19 pandemic. The results were compared with the data for older people as well as young people living elsewhere using Eurostat database age groups.

Results: The results demonstrate that young people in rural areas are more severely affected by the crises compared to other analysed groups. However, the pace of recovery from high unemployment in this group is higher compared to urban areas. The authors also found that in EU countries where unemployment rates increased significantly after the 2007 financial crisis, young people in rural areas continue to face high unemployment rates above the EU average.

Implications and recommendations: In order to design rural development programmes to support job creation it is of crucial importance to monitor levels of the rural youth labour market. Moreover, active labour policies, such as training and education, should be undertaken with the objective of increasing flexibility of young people in the rural labour market.

Originality/value: The novelty of this research lies in its empirical demonstration that youth unemployment in rural areas is particularly vulnerable. Therefore, it warrants special attention in policy-making.

Keywords: rural areas, youth unemployment rate, economic crises

1. Introduction

Triggered by the crash of the financial markets, the global crisis of 2007 spread rapidly across the real sphere of the economy and resulted in a global recession. While the crisis of 2007 was driven by an inherently economic or financial shock, the COVID-19 pandemic crisis was caused by a public health crisis (Weinstock, 2020). The COVID-19 pandemic brought a drop in consumer demand across all industrial sectors resulting in economic recession and massive unemployment (Petterson et al., 2020). The crisis of 2007 dampened production and consumption, decreased investment rates and global turnover, and consequently a massive number of jobs were lost around the world and unemployment rates climbed to unpredicted levels (Ötker-Robe, & Podpiera 2013). The crisis caused a significant GDP drop and mass unemployment in the United States and Europe (Krugman, 2008). Ötker-Robe and Podpiera (2013) and Junankar (2011) contended that the global financial crisis disproportionally hurt the youth as the youth unemployment rates increased more dramatically than average rates across the workforce. Similar results were presented by Tamesberger and Bacher (2020) regarding the COVID-19 pandemic crisis, who stated that "the spread of the coronavirus has made economic conditions difficult in many areas and has led to skyrocketing youth unemployment in most European countries." The International Labour Organization (2020) reported that the advent of massive job losses and the growing precariousness of work after the COVID-19 crisis is having particularly painful impacts on young people across the globe. Additionally, Blustein et al. (2020) reported that the COVID-19 pandemic exposed and exacerbated existing inequities in the labour market. Krzysztofik et al. (2020) and Antipova (2021) stressed that during the pandemic, marginalised regions experience disproportionate economic impacts.

In general, youth unemployment increases faster during a recession because many young people work in cyclically sensitive sectors and in part-time casual employment. As a result, when a recession hits, employers stop hiring new (young) entrants and tend to terminate entry-level employees in vulnerable positions (Junankar, 2015). Scarpetta et al. (2012) stated the high incidence of temporary employment as a key factor in explaining job losses among young people during the 2007 crisis.

Tamesberger and Bacher (2020) underlined that unemployment during one's youth has far-reaching consequences for individuals, society as a whole and economic development. Eurofound (2014) emphasised that the consequences of youth unemployment are not merely economic but are also societal, with the risk of young people opting out of democratic and social participation in society. Moreover, Bocchino et al. (2021) found that youth unemployment has serious negative effects on biopsychosocial health.

This problem can be even more visible in rural areas where labour markets remain less developed compared to urban ones. They are characterised by weaker aggregate demand, insufficient job creation and persistently high levels of unemployment. The International Labour Organization (2020) pointed out that substantial inequalities prevail in the access to work and work quality between workers in urban and rural areas. Challenges facing workers in rural areas include a relative lack of professional/high-level jobs in sectors such as finance and business, an over-reliance on low-skilled, casual (often seasonal) work, limited opportunities for gaining work experience, geographical remoteness and accessibility factors, a weak transport and service infrastructure and localised skills mismatches (Beatty and Fothergill (1999), Monk et al. (1999), Cartmel and Furlong (2000), Hodge et al. (2002), Lindsay et al. (2003), Experian (2005), De Hoyos, & Green (2011)). In reference to the COVID-19 pandemic crisis, Peters (2020) underlined that lack of health care and social services, as well as of funds and leadership, made rural communities particularly vulnerable.

Moreover, as noted by Monk et al. (2000), the prevalence of particular working arrangements also differed significantly among rural and urban labour markets: "part-time work, self-employment, multiple job holding and small business are more frequent and important in rural than in urban areas. It is notable that self-employment and part-time work is associated with relatively low incomes and may also disguise under-employment."

Another characteristic of the rural labour market is the preponderance of small enterprises which are more likely to fall victim to sectorial downturns. Additionally, unemployment rates in rural areas may increase rapidly during the crisis since young people losing their jobs in cities come back to their parents' farms where they frequently remain unemployed. This process was deeply analysed by Huang et al. (2010) using the example of the Chinese youth rural market.

The main problem faced by the demand side of the rural labour market is low population density levels and the level of education of the potential workforce. De Hoyos and Green (2011) stated that in rural areas "it can be increasingly challenging to find a suitable candidate as the level of specialisation required increases. However, once a candidate is found, retention may be less of a problem given that opportunities in the area are limited. For young people in rural areas, this means that jobs offering career progression opportunities are very limited."

Istenic and Copus (2009) distinguished between two schools offering different explanations of the multiple handicaps described above. The neo-classical human capital theory places reliance upon education and training and free market forces, whereas the labour market segmentation school takes a more pessimistic view. It argues that many rural employees are locked into a distinct 'secondary segment' of the labour market where there is a broader range of social, cultural and institutional barriers that prevent them from moving up into 'primary segment' employment.

Whichever explanation is more appropriate, taking into consideration the characteristics of both the youth and rural labour market, it can be assumed that the youth rural labour market is one of the most fragile. Thus, the objective of this study was to research the vulnerability of youth unemployment in rural areas of the European Union to the global financial crisis of 2007 and the COVID-19 pandemic. Hence, the authors formulated two suppositions:

1. Young people in rural areas are more vulnerable to economic crises in terms of unemployment compared to other rural inhabitants.
2. In EU countries where unemployment rates experienced the most significant increases after the 2007 financial crisis, young people in rural areas continue to experience high unemployment rates that exceed the EU average.

The paper was adapted to justify these suppositions. First, the authors described the methodology used to gather data, followed by presenting the general situation of the EU labour market before and after the financial crisis of 2007 and the COVID-19 pandemic. Next the study focused on EU countries and measured the impact of the crises on youth unemployment in rural areas. It identified the countries where youth unemployment in rural areas was most affected during the financial crisis of 2007 and followed up on their situation after the COVID-19 pandemic. Finally, the paper concludes with a discussion.

2. Methodology

The authors examined the unemployment rate of youth and adults, as well as differences in rural and urban areas. In order to assess the impact of the financial crisis on youth unemployment in rural areas, the study compared average unemployment rates of two periods: 2000-2008 (before the crisis) and 2009-2013 (after the crisis). The financial crisis started in 2007, but its effects on the real sphere of the economy were visible from 2009 onwards until 2013. Next, the analysis was continued with the data for the period 2014-2020, which included the pandemic. Due to limited data accessibility, the authors presented the situation only until 2020, using Eurostat database age groups. Thus, young people in the labour market include individuals aged 15-24, while the older classification included those aged 74 and less.

There is no commonly accepted global definition of rural areas (Pizzoli, & Gong, 2008), as even in European Union countries rural areas are differently delimited (UNECE, 2007; Hadyński, 2015). This

paper, in order to achieve comparable results, used Eurostat data (based on OECD definition) and followed its methodology of delimiting rural areas. To identify populations in rural areas, Eurostat applies a three-step approach. Firstly, it defines rural areas as "all areas outside urban clusters", while 'urban clusters' are clusters of contiguous grid cells of 1 km² with a density of at least 300 inhabitants per km² and a minimum population of 5000". Next, it classifies all EU NUTS 3 regions on the basis of the share of their population in rural areas as follows:

- predominantly rural, if the share of the population living in rural areas is higher than 50,
- intermediate, if the share of the population living in rural areas is between 20 and 50,
- predominantly urban, if the share of the population living in rural areas is below 20.

In the third step, the size of the urban centres in the region is considered. A predominantly rural region that contains an urban centre of more than 200,000 inhabitants making up at least 25% of the regional population is deemed intermediate. An intermediate region which contains an urban centre of more than 500 000 inhabitants making up at least 25% of the regional population becomes predominantly urban (Eurostat, 2016).

3. Results

3.1. Unemployment rates in the European Union before and after economic crises

The average unemployment rate in the EU in 2000 amounted to 8.9%, and slightly declined in 2007, just before the global financial crisis, and then continued to rise until 2013, reaching 10.2%. At the same time, the unemployment rate of young people in the EU was twice as high during these years – it reached 20% in 2000 and, after a decrease to 15% in 2007, sharply rose to a peak of 25% in 2013. From 2013 to 2019 the unemployment rate decreased, and the financial crisis seemed to be overcome, yet the COVID-19 pandemic caused it to rise again in 2020 (Figure 1). The increase in the unemployment rate was more dynamic among young people compared to other age groups. Thus, not only was the initial situation in the labour market less favourable for young people before the financial crisis, but also the pace of growth of the unemployment index after the crisis was much faster in this group compared to the average and that for older people.

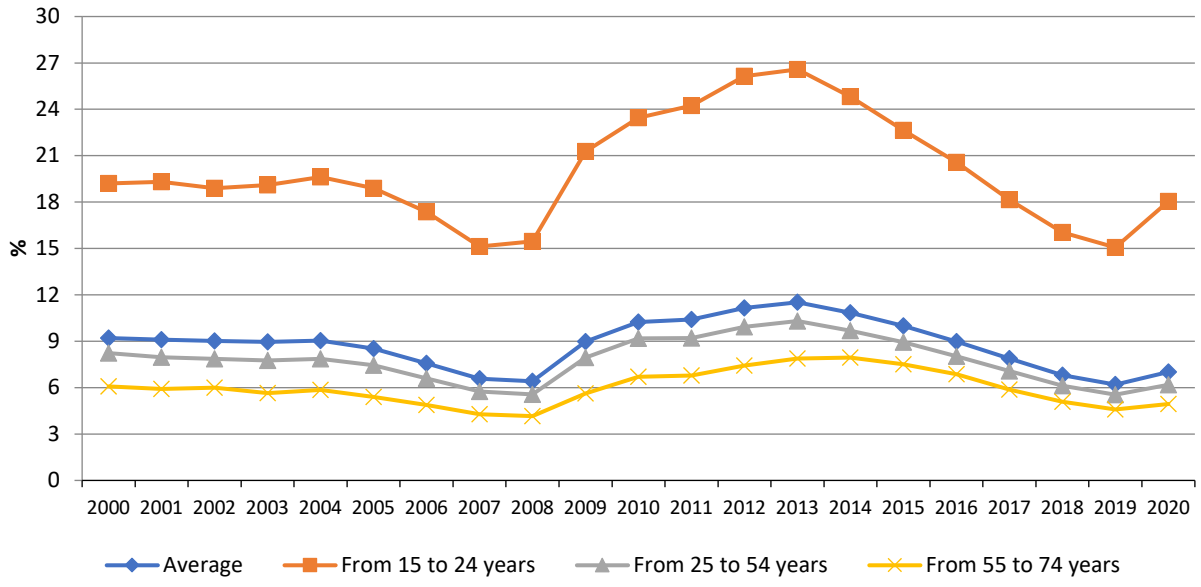

Fig. 1. The unemployment rate in the EU in age groups in the period 2000-2020

Source: own elaboration based on the Eurostat database.

Table 1 compares the unemployment levels between youth and EU averages in different countries. In the majority of countries (except Poland and Germany), overall unemployment rates after the global financial crisis increased, whilst in Ireland and Spain, unemployment rates increased more than once. In Greece the rise was also important, but did not exceed 100%. Similar tendencies of change in unemployment indexes in 2000-2008 and 2009-2013 concerned young people, however, they were much stronger. In Ireland the unemployment index of young people increased by 211.4%, in Spain by 120% and in Greece by 90%. In 2014-2019 the situation ameliorated for the majority of EU countries, however the youth unemployment levels in Greece, Spain and Italy still exceeded 35%. Comparing the average from 2014-2019 to that of 2020, only slight changes in unemployment levels were visible both in average and youth rates. Further data are needed to draw conclusions on the impact of the COVID-19 crisis on youth employment.

Table 1. Average and the youth unemployment rates in EU countries before and after the financial crisis and the COVID-19 pandemic

Country	Average	Youth	Average	Youth	Average	Youth	Average	Youth
	2000-2008		2009-2013		2014-2019		2020	
Belgium	7.7	19.3	7.9	21.3	7.3	19.1	5.8	15.3
Bulgaria	12.4	26.3	11.3	23.9	8.3	16.2	6.1	14.2
Czech Republic	7.2	16.6	6.9	18.3	3.7	9.9	2.6	8.0
Denmark	4.5	8.1	7.3	15.2	5.9	11.9	5.6	11.6
Germany	9.1	11.5	6.0	9.1	3.8	6.8	3.7	7.5
Estonia	9.2	17.6	12.2	24.5	6.0	13.3	6.9	18.5
Ireland	4.6	9.0	14.1	27.9	8.0	16.9	5.9	15.3
Greece	9.7	25.8	18.6	43.4	22.5	44.7	17.6	35.0
Spain	10.4	21.6	22.0	46.8	18.8	41.9	15.5	38.3
France	8.3	20.1	9.5	23.8	9.6	22.6	8.0	20.2
Croatia	13.1	32.1	13.6	37.3	12.2	31.1	7.5	21.1
Italy	7.9	25.0	9.6	31.5	11.4	36.2	9.3	29.4
Cyprus	4.3	9.8	9.5	23.9	11.8	26.6	7.6	18.2
Latvia	10.5	17.5	16.1	30.4	8.8	15.8	8.1	14.9
Lithuania	10.6	19.8	14.4	29.3	7.9	14.4	8.5	19.6
Luxembourg	3.8	13.0	5.1	16.5	5.9	17.6	6.8	23.2
Hungary	6.6	15.7	10.5	26.7	5.0	13.8	4.1	12.8
Malta	7.0	14.7	6.5	13.5	4.5	10.5	4.4	10.9
Netherlands	4.4	7.7	6.1	11.2	6.4	9.6	4.9	9.1
Austria	4.7	8.1	5.2	9.6	5.8	10.0	6.0	10.5
Poland	15.8	33.8	9.8	24.8	5.9	16.5	3.2	10.8
Portugal	7.5	14.0	14.0	29.9	10.4	26.2	7.0	22.6
Romania	7.3	20.4	8.1	22.6	6.8	19.6	6.1	17.3
Slovenia	6.0	14.9	8.1	17.2	7.1	13.3	5.0	14.2
Slovakia	16.0	30.7	13.6	32.4	9.1	21.4	6.7	19.3
Finland	8.4	19.6	8.2	20.4	8.3	19.6	7.7	21.4
Sweden	6.5	16.6	8.2	23.9	7.2	19.6	8.5	23.9
Average EU	**8.3**	**18.1**	**10.5**	**24.3**	**8.5**	**19.5**	**7.0**	**18.1**

Source: own elaboration based on the Eurostat database.

Figure 2 presents the youth unemployment rate in predominantly urban, intermediate and predominantly rural areas. Before the financial crisis, the unemployment rates of young people in intermediate and predominantly rural areas were similar but higher at the urban level. The financial crisis of 2007 caused an increase in the indexes of all groups, however the data showed that it was more visible in predominantly rural areas, where the unemployment rate in 2013 reached over 28%.

The negative effects of the financial crisis lasted approximately seven years. Since 2014 the unemployment rates in all the observed categories decreased, reaching an average value of 15% in 2019. It should be underlined that the pace of the decline in the unemployment rates was the highest

in rural regions compared to other places of habitation. As a consequence, from 2016 to 2019, the unemployment rates of young people in the EU were at similar levels regardless of their place of habitation. However, after the COVID-19 pandemic crisis in 2020, youth unemployment increased more significantly in rural areas compared to young people in intermediate and urban regions.

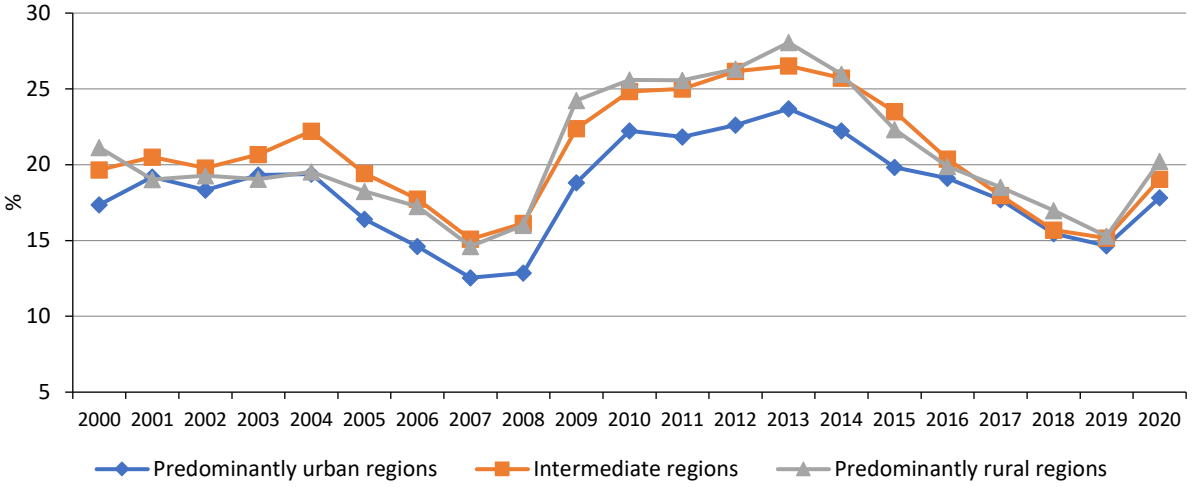

Fig. 2. The unemployment rate of young people in the EU based on the Eurostat Urban-Rural Typology from 2000-2020

Source: own elaboration based on the Eurostat database.

Figure 3 combines the data presented in the two previous figures. It shows the differences in unemployment rates between the young people and older adults in the period 2009-2013 (after the financial crisis in 2007) and before and after the COVID-19 pandemic crisis.

Following these a positive difference in the unemployment rates within the EU could be observed, with the difference larger for rural areas which tends to increase. This confirms that young people in rural areas were particularly badly affected by the financial crisis compared to both adults and young people from other areas.

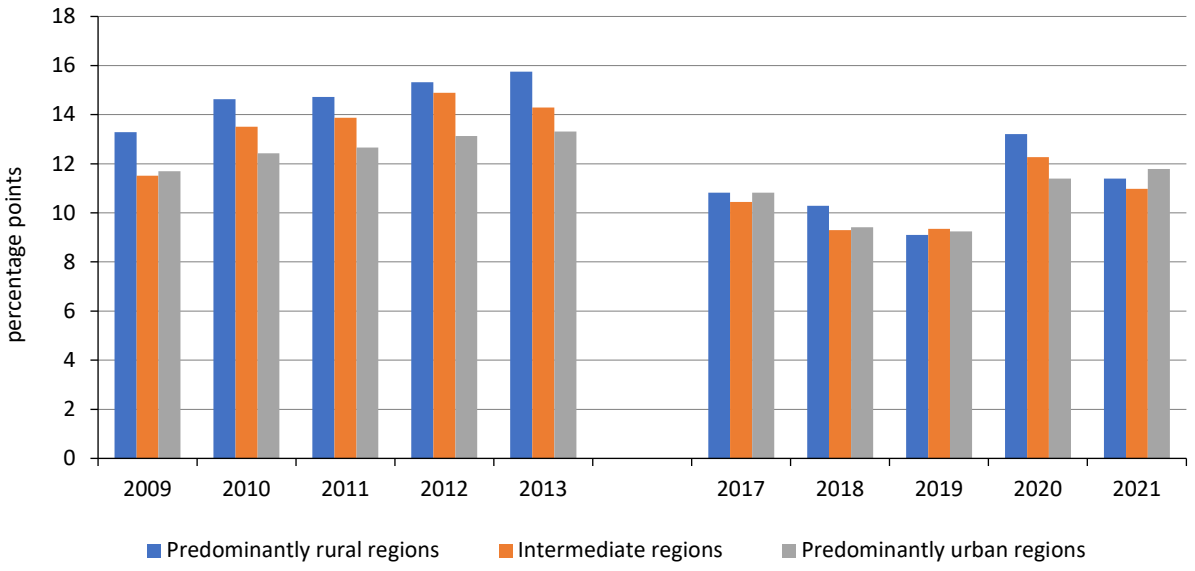

Fig. 3. Differences in unemployment rates between the young people and adults in the EU (in percentage points) after the financial crisis 2007 (2009-2013) and before and after the COVID-19 pandemic crisis (2017-2021)

Source: own elaboration based on the Eurostat database.

In 2017-2019 these differences in unemployment rates within the EU were lower compared to 2009-2013, moreover this difference in rural areas decreased, which demonstrates that the youth labour market in rural areas relatively improved until 2019, yet it was again harmed by the COVID-19 pandemic in 2020.

3.2. Youth unemployment in rural areas in EU countries

The average unemployment rate of young people in rural areas in the European Union in the period 2014-2019 amounted to 20%, but it was strongly diversified. The rate in Germany and Austria was around 7%, while for Greece, Spain, Slovakia and Italy it over 30% and above (Figure 4).

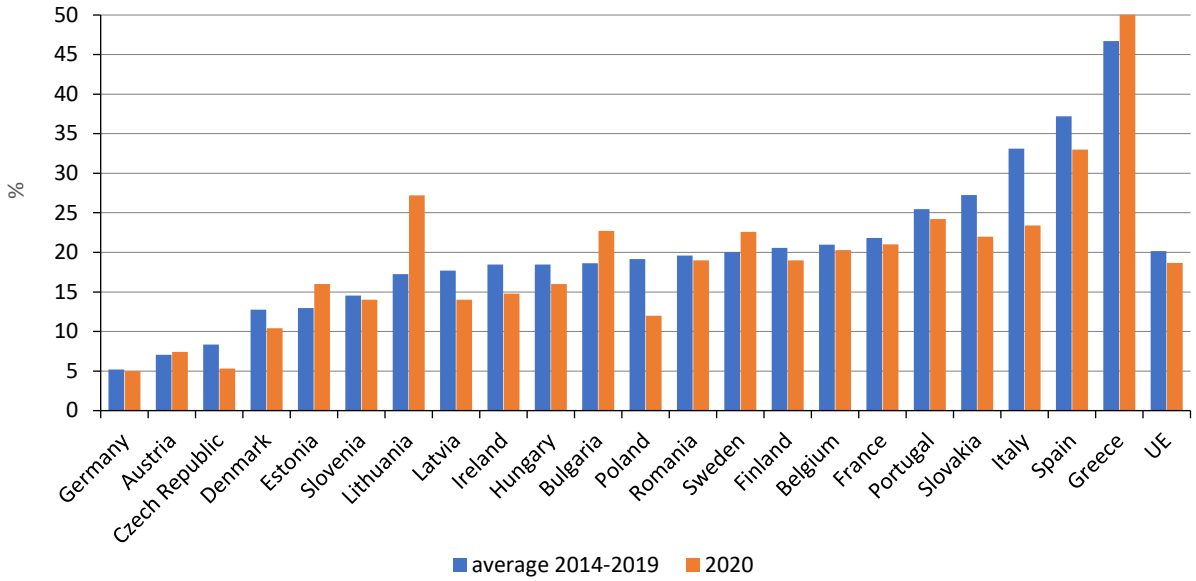

Fig. 4. Unemployment rates of young people in rural areas within the EU countries

Source: own elaboration based on the Eurostat database.

To find out which EU counties were the most affected by the financial crisis in 2007 in terms of youth unemployment in rural areas, the study compared two periods: 2000-2008 (before the crisis) and 2009-2013 (after the crisis). Variance analysis proved that there were significant differences between the values of the unemployment rates of the two compared periods for all the analysed countries ($F=31.046$, $p=0.00$). The average unemployment rates of these two periods are shown in Figure 5, where the values on the x-axis indicate the initial state (before the crisis), while those on the y-axis demonstrate the situation afterwards.

Three groups of countries were identified based on the distribution function of the unemployment index from 2000 to 2008, and are delineated by vertical lines in Figure 5. In 25% of the countries – including Ireland, Austria, the UK, Germany and the Czech Republic (the first group) – the unemployment rate was lower than 14.4%, whereas the majority of countries comprised the second group with an index value of between 14.4% to 24%, while four countries (Greece, Italy, Slovakia and Poland) constituted the third group showing the highest value of unemployment rate among young people in rural areas.

To assess the dynamics of changes in the unemployment rate, an index of change (ratio of the average unemployment rate in 2000-2008 and 2009-2013) was calculated for each country (Figure 5). Next, based on the index values, four groups of counties were delineated, where the index value of changes was lower than 1 in three countries: Poland (PL), Finland (FI) and Germany (DE). In these countries, the unemployment rate of young people in rural areas after the crisis in 2007 was lower compared to previous years, whilst for the majority of countries the unemployment rates of young people in rural

areas in the EU after the financial crisis were higher than before, yet there were some important differences in the pace of change of unemployment index among them. In twelve countries, the pace of change was between 1 and 1.5. In Greece (GR), Lithuania (LT) and Hungary (HU), the unemployment among young people in rural areas increased more than 1.5 times, but less than 2 times. In Spain (ES) and Ireland (IR), the rise of the unemployment index was the most dramatic, reaching almost 2.5 times for Spain and over 3.6 times for Ireland. Overall, the situation of young people in rural areas after the financial crisis in 2007 (in 2009-2013) was especially severe in Spain (ES) and Greece (GR) with an average unemployment rate above 42%, followed by Lithuania (LT) and Slovakia (SK) (36%) and Italy (IT) and Ireland (IR) (over 30%).

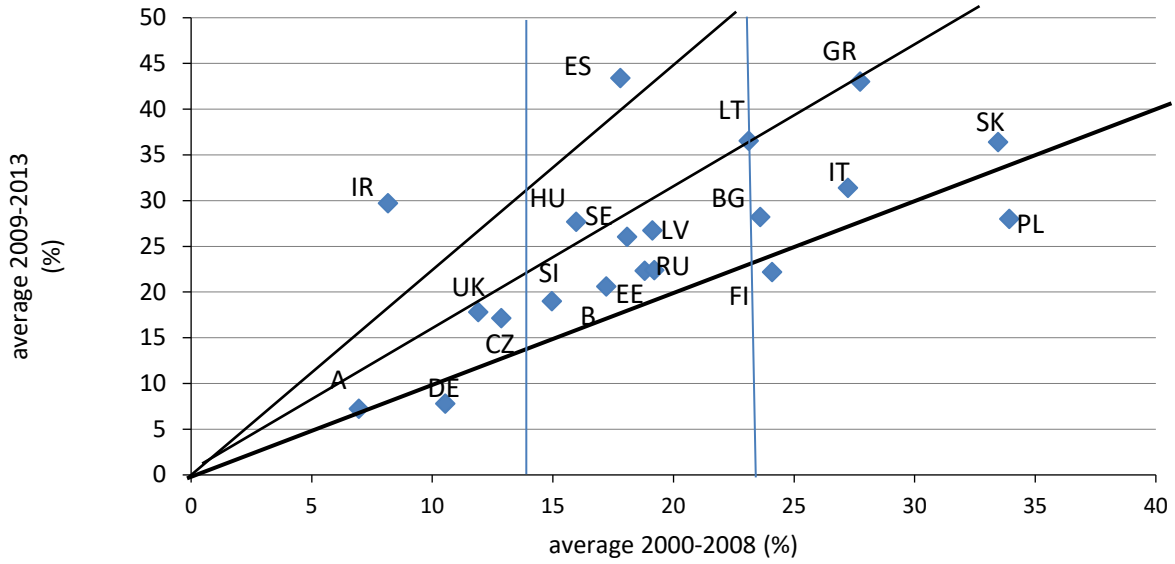

Fig. 5. Unemployment rate of young people in rural areas in EU countries, before and after the financial crisis 2007

Source: own calculations based on the Eurostat database.

To examine the changes in the unemployment rates in the countries which were most affected by the crisis in 2007, the authors analysed the rates of unemployment of young people in rural areas in the period 2013-2021 (Figure 6).

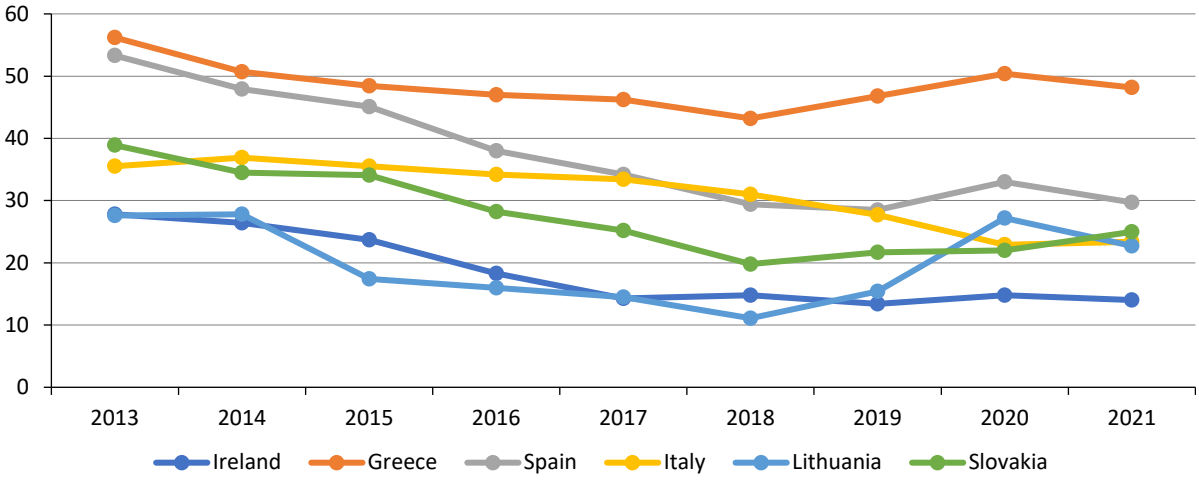

Fig. 6. Unemployment rate of young people in rural areas in the EU countries most affected by the crisis of 2007 (in 2013-2021)

Source: own elaboration based on the Eurostat database.

The data demonstrated that the highest unemployment rate of young people in rural areas was observed in Greece, where in 2013 it reached the alarming level of 56.2%. The pace of its change from 2013 to 2021 was relatively slow, rising to 43.2% in 2018 and increasing to 48.2% in 2021. Moreover, Kraatz (2015) underlined that young people in Greece were more adversely affected by the crisis than in the other analysed European countries.

A difficult situation also arose in Spain, where between 2013 and 2019 the unemployment rate of young people in rural areas decreased from 53.3% to 27.7%, but after the COVID-19 crisis it went up to 35.3%.

The most significant increase in the index after the crisis concerned Lithuania, where despite the decrease from 2013 to 2018, the index level returned to its previous level above 22.7%. The unemployment rate of young people in rural areas in Italy and Slovakia decreased after 2013, reaching 23-25% in 2021. Only in Ireland, unemployment rates among youths in rural areas reached 14%, which was still higher compared to the period 2000-2008. One can conclude that the unemployment level of young people in rural areas in most of the EU countries where unemployment rates had increased the most after the financial crisis of 2007, still remained high and exceeded the EU average of 18.1% in 2021.

Table 2 presents the youth unemployment rate in rural and urban areas in the analysed countries. In 2013 in Ireland, Lithuania and Slovakia the unemployment rate among young people in rural areas was higher compared to urban ones. In Ireland this relation was reversed, and in 2021 the unemployment rate among young people in rural areas was lower than in urban ones. This was due to the fact that in rural areas the unemployment rate among young people decreased more rapidly than in urban areas (by approximately 50% and 30%, respectively). A stable situation in this regard could be observed in Lithuania, where the relationship remained unchanged and the rate of decline in unemployment in both rural and urban areas was very similar.

In 2013 in Greece, Spain and Italy, the unemployment rate among young people in rural areas was lower compared to urban areas. In Italy and Spain, the unemployment rate between 2013 and 2021 decreased more rapidly in rural areas compared to urban areas, a unique case being Greece where unemployment declined faster in urban areas (urban unemployment in 2021 was approximately 43% of the 2013 level, whereas in rural areas it was close to 86%, i.e. it only decreased by 14%).

Table 2. The youth unemployment rate in rural and urban areas in the EU countries most affected by the crisis of 2007 (in 2013-2021)

Years		Ireland	Greece	Spain	Italy	Lithuania	Slovakia
2013		1.3	0.9	0.9	0.8	2.0	2.0
2014		1.4	1.0	0.9	0.8	1.9	2.3
2015		1.5	1.0	0.9	0.8	1.6	2.4
2016		1.3	1.0	0.9	0.8	1.6	1.8
2017		1.0	1.1	0.9	0.9	2.0	1.9
2018		1.2	1.1	0.9	0.9	1.9	–
2019		1.2	1.5	0.9	0.9	1.9	–
2020		0.9	2.2	0.9	0.7	1.8	–
2021		0.9	1.9	0.8	0.7	2.0	–
2013=100	Rural	50.4	85.8	55.7	65.9	82.2	64.5
	Urban	70.7	43.3	64.2	79.4	81.3	–

Source: own elaboration based on the Eurostat database.

The literature indicates that the causes of youth unemployment in rural areas of Greece are multifaceted, involving macroeconomic and structural factors, as well as specific characteristics of the Greek labour market and education system, among which, skills mismatch, lack of work experience,

difficulties in entrepreneurship, and socio-cultural factors are frequently mentioned. For example, Kraatz (2015) highlighted the prolonged and incomplete transition from education to work, the large share of highly educated unemployed aged 25-29, strong gender differentials, (flattening) regional disparities, sectoral labour market segregation, and the high share of informal employment. Similarly, Bell and Blanchflower (2015) stressed that young Greeks were much more likely to live at home than young people in Northern Europe, which mitigates the costs of unemployment but may also restrict mobility, leading to longer periods of unemployment. Additionally, there are significant gender differentials, with females aged 25-29 more likely to have moved away from the parental home.

4. Discussion and conclusions

The impact of the financial crisis on the labour markets differed between EU countries, for most of them reflected in their GDP performance. However, as underlined by De Beer (2012), the relationship between the fall in GDP and the decline in employment was not linear. Many different reasons might have influenced these varied results of EU countries' economies. In the specialist literature, there has been an intense debate on the reasons of crisis vulnerability of different European countries, and among factors explaining the different levels of resistance to crisis were those linked to labour market flexibility and policies, trade union engagement; Tridico (2013), Cazes et al. (2013), the structure of the economy, the weight of the housing sector in the economy (Marelli et al. (2012)), appropriateness of fiscal and monetary policies, as well as external dependencies such as exposure to foreign banks, reliance on international trade, level of external debt and exchange rate regimes (Marer (2010), Fraga and Duarte Rocha (2014), Smith and Swain (2010).

This paper demonstrates that youth unemployment rates in rural areas showed similar tendencies to the general unemployment rates. Therefore, it follows that similar reasons influenced the deterioration of the rural labour markets for young people compared to adults, however, due to the characteristics of rural youth labour market, the negative impact on young people in rural areas was much stronger. The results demonstrate that young people in rural areas were more severely affected by the crisis compared to the other analysed groups, yet these findings indicate that the pace of recovery from high unemployment in this group was quicker compared to urban areas. Thus, as was supposed, the overall vulnerability of youth unemployment in rural areas of the European Union to economic crises tends to be higher than the average.

Istenic and Copus (2009) stated that in Europe, as in other parts of the world, rural areas have been for decades perceived as places of much slower economic, social and cultural progress in comparison to urban areas. Through the modernisation process, the concentration of natural and human resources in cities was even more intensified, whereas most rural economies were marked with a lack of opportunities and isolation. Out-migration from rural to urban areas led to the depopulation of rural areas and affected the maintenance of the local rural economy (Murdoch et al., 2003).

The research demonstrated that although the labour market performance in EU countries differed in the period 2008-2020, the impact of the crises on rural youth was more intense compared to other groups in each EU country. Even in Poland and Germany, where the unemployment rate actually decreased after the financial crisis in 2007, the positive effect was less visible in rural areas. This proves that young people in rural labour markets are indeed particularly crisis-sensitive, and the difference between rural and urban labour market conditions remains large.

Tridico (2013) argued that in countries where social institutions and trade unions are stronger, the social cost of the financial crisis is less severe. In contrast, in countries with high labour flexibility (i.e. Ireland, Latvia, Lithuania and Spain) unemployment increased dramatically. In Ireland, the great flexibility of the labour market and lower public expenditure on social policies caused a dramatic increase in unemployment. In the Baltic States (Estonia, Latvia and Lithuania), the situation was worsened by strong external dependence, whereas in Southern European countries (Spain, Greece,

Portugal and Italy), structural problems such as low productivity and high level of public debt, had a damaging effect. Scarpetta and Sonnet (2012) argued that "extraordinarily high youth unemployment in Spain is connected not only with the depth and length of the economic crisis but also with the fact that more than 60% of young people were employed on temporary contracts before the crisis and many of these jobs were destroyed during the crisis". It should be mentioned that Central and Eastern European countries did not react to the crisis in a similar way. The results showed that with regard to the dynamics of changes in the unemployment rate, these countries were ranked into different analytical groups.

The findings of this study demonstrate that while the average unemployment rate of young people in rural areas decreased after 2013, the situation in the majority of the countries most affected by the financial crisis (Spain, Greece, Lithuania, Slovakia, and Italy) has not steadily improved. In other words, in EU countries where unemployment rates increased significantly after the financial crisis of 2007, young people in rural areas still experience high unemployment rates that exceed the EU average. These results confirm the second supposition of this study.

Moreover, it should be mentioned that rural regions are often associated with hidden unemployment, which is not captured by the published statistics. This can include the economically inactive who are able, and would like to work but are not seeking employment and/or not available for work. Hidden unemployment may be due to the presence of 'disaffected workers' (which one would expect to be more common in rural areas) or there may also be institutional reasons for people not registering as unemployed, e.g. if they worked on a family farm or in another business entity they may not be eligible for unemployment or other welfare benefits, or they may have received inadequate advice about potential social payments (Copus et al., 2006).

Unemployment has been cited as an important factor explaining the continued problem of social exclusion in rural areas (Shucksmith, 2004). It is well known that increased youth unemployment in rural areas may cause severe multiple disadvantages, such as the lack of qualifications, heightened levels of social alienation and depression, alcohol and drug abuse, petty crime and suicide rates, poverty and other forms of social exclusion (Eurofound, 2014).

Moreover, youth unemployment may lead to pathological living patterns of new generations. This has been an unresolved issue for some post-communist countries from Central and Eastern Europe where state farms were privatised and subsistence farming was often the only survival solution. Hence, it is of crucial importance to monitor levels of the rural youth labour market in order to design rural development programmes to support job creation. Active labour policies, such as training and education, should also be undertaken with the objective of increasing flexibility of young people in the rural labour market.

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