How do Czech Rural Regions Cope with the Recent Economic Crisis? Evidence Derived from Unemployment Development

Andrea Čapkovičová

Abstract: The outbreak of the recent economic crisis and the following economic recovery stimulate questions of existing resistance and endogenous capacity on national as well as regional level to cope with such an external shock. In our example, we specifically focus on rural LAU 1 regions as those that are traditionally considered to be more vulnerable to such events. For the purpose of provided analyses, we operate with variables describing the development of unemployment within the period 2008-2013. The results do not support the existence of significantly more vulnerable rural areas as a category of regions whereas they refer to heterogeneous endogenous capacity on the level of individual rural regions that affects their resistance to the crisis.

Key words: Rural Regions · Unemployment · Economic Crisis · Czech Republic

JEL Classification: R11 · J69

1 Introduction

In the literature and policy planning, the traditionally used synonyms for rural are those as agricultural, declining, lagging and dependent. However, looking at the evolution of rural development strategies from exogenous through endogenous into neo-endogenous (Ecorys-Research and Consulting, 2010; Terluin, 2003), we need to critically acknowledge the changing importance and the role of rural areas, especially in relation to population turnaround (Marini & Mooney, 2006; OECD, 2006), the accompanied shift from production- into consumption-based use of the countryside (Marsden et al., 1993; Post & Terluin, 1997; Woods, 2005) and the process of rural commodification (for the reference see Woods, 2005).

The inevitability and the direction of changes in rural areas originate from ongoing processes of globalization, infrastructural and technological developments as well as the change in lifestyles (for the reference see Bell, 2006; Ilbery, 1998; OECD, 2006; Sotte, 2005; Woods, 2005). As an example, the stronger economic resilience of rural areas may be then related to greater variety of employment possibilities connected with newly developed consumer base and product markets. However, any external shock of such nature and magnitude as last economic crisis is the right mechanism to test the resistance of the system, in our example the rural labour markets by looking at the development of unemployment. Several studies attempted to uncover the impacts of the economic crisis on labour markets. For example, Bartsch & Scirankova (2012) focused on differences in EU regional labour market. Additionally, Czeglédi et al. (2012) analysed the effects of the crisis by comparing Hungary and Slovakia. Moreover, more national-based study was delivered by Rakowska (2014) that focused on specifics of rural labour markets in Poland by covering time period 2008-2012 that well fits into the crisis timing.

Consumers of rural (food, environment, products, culture, lifestyle, etc.) are of a great part located outside rural areas. Lowering their purchasing power in connection with the overall weaker performance of national economy, they both impose burden on the population flatly. At the same time, it opens the issue of the endogenous capacity of rural areas to fight the present situation, and so test how resilient to unexpected external shocks they are. Therefore, the objective of our study is to assess the impact of the recent crisis on the unemployment development in Czech rural areas while referring to the change of selected variables on the country level.

2 Methods

For the purpose of our analyses, we conceptualize rural areas as regions in accordance with the demographic approach to their definition (Murray, 2008). Therefore, we apply the OECD methodology (2010) that allows us to distinguish rural regions (in the methodology classified as predominantly rural) based on the variable of population density of individual settlements (less than 150 inhabitants per km2 classified as rural) and the respective share of people living in these rural settlements on the total population of the region (more than 50% classified the region as predominantly rural – rural in our case). While referring to the term region, we work with the level of LAU 1 regions (okresy in the

MSC. Andrea Čapkovičová. Charles University in Prague, Faculty of Science, Department of Social Geography and Regional Development, Albertov 6, 128 43 Praha 2, e-mail: andrea.capkovicova@gmail.com
Czech Republic). The final number of regions classified as rural is 21 out of 76 (excl. Prague). Data are obtained from the Public Database of the Czech Statistical Office (CZSO).

Due to generally set objective of assessing the impact of recent crisis on the unemployment development in the Czech rural areas, we focus on these variables in the time period 2008-2013:

- unemployment rate as the share of unemployed (unemployed-available) on the population aged 15-64 in the Czech Republic and the group of rural regions (in %)
- change in unemployment rate in percentual points (pp) as the annual difference between the unemployment rates
- change in the number of unemployed as the percentual change of unemployed from one year to another
- dispersion of unemployment rates (coefficient of variation) reported on an annual basis in the Czech Republic and in the group of rural regions
- minimum, maximum, median value of unemployment rates reported on an annual basis in the Czech Republic and in the group of rural regions describing the variance within the samples

3 Research results

The presented results comprise relevant information related in the first place to the general impact of recent crisis as being represented by the development of unemployment rates, number of unemployed of the country as a whole and the rural regions particularly. Secondly, the dispersion of the unemployment rates helps us to understand the vulnerability of the country economy (with respect to unemployment development) and specifically of the rural economies. Moreover, focusing on rural regions allows us to assess their endogenous capacity to deal with such an external shock by comparing the observed variables with national numbers.

3.1 Development of unemployment rates in the ongoing crisis over 2008-2013

Prior to the beginning of the crisis, the unemployment rate on the national level was relatively low (4.5%) (Table 1). The situation in rural regions was also relatively optimistic with the difference of only 0.7 pp. At this point, it is good to notice that generally talking about rural regions as of lagging, less dynamic, declining and backward does not rightly illustrate the real situation, at least not at the time when the Czech Republic experienced years of (successful) transformation from centrally-planned to market economy and integration into the EU. By moving in time forward, we can see that the final result of the crisis dating the measured unemployment rates to 2013 stopped at 8.2% unemployment rate at the national level, and 8.6% at the level of rural regions.

Table 1 Unemployment rate, in %

<table>
<thead>
<tr>
<th></th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Czech Republic</td>
<td>4.5</td>
<td>7.1</td>
<td>7.4</td>
<td>6.8</td>
<td>7.4</td>
<td>8.2</td>
</tr>
<tr>
<td>Rural regions</td>
<td>5.2</td>
<td>8.0</td>
<td>8.4</td>
<td>7.5</td>
<td>8.0</td>
<td>8.6</td>
</tr>
</tbody>
</table>

Source: own processing based on the Public Database (CZSO)

3.2 Changes in unemployment rates in the ongoing crisis over 2008-2013

The pp differences in unemployment rates year by year within the observed time period (2008-2013) are displayed on Table 2. It is obvious that the most significant change in relation to pp increase of unemployment rates was from 2008 to 2009. In a cumulative effect of pp changes in unemployment rates from 2008-2013, the pp change achieved on the national level was +3.7 and +3.5 on the level of rural regions. Therefore, any significantly negative effect of crisis that would support the economic vulnerability and instability of rural regions relative to the national development was not revealed. It is noteworthy to say that this may be attributed to the structure of rural employment (shares of sectors, especially the traditional ones as agricultural or public administration services) as well as the character of networks with extralocal economic partners (share of inter-municipal, regional, national or global networks) or reported slightly higher unemployment rate compared to the national one (see Table 1).

Table 2 Unemployment rate increase in pp

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Czech Republic</td>
<td>2.6</td>
<td>0.3</td>
<td>-0.6</td>
<td>0.6</td>
<td>0.8</td>
<td>3.7</td>
</tr>
<tr>
<td>Rural regions</td>
<td>2.9</td>
<td>0.4</td>
<td>-0.9</td>
<td>0.5</td>
<td>0.6</td>
<td>3.5</td>
</tr>
</tbody>
</table>

Source: own processing based on the Public Database (CZSO)

3.3 Changes in the number of the unemployed over 2008-2013

While till now we were referring to relative changes in unemployment development (unemployment rates), at this point we look at the absolute numbers of the unemployed and how these changed under the recent crisis (Table 3). Corresponding to the Table 2, the number of the unemployed increased the most from 2008 to 2009 (57.5% in the Czech Republic and 55.00% in rural regions). We may see from these numbers that the shock from the crisis was really big for
the economy (both national and rural) as well as for individuals suffering from the economic downturn. Another important number from the Table 4 is in the last column that represents the percentual change in the number of the unemployed between 2008-2013. In accordance to previously mentioned reasons (stability of sectors in rural regions, origin of economic networks on the local level to extralocal environment) and some others (scope and targeted markets of the rural production, etc.), rural regions experienced the slower pace of change in the number of the unemployed than the Czech Republic as a whole when we relativize the number of the unemployed in 2013 to 2008 (it is important to mention that the increase in the number of the unemployed on the national level is only by 15.4% attributable to the increase in number of the unemployed in rural regions).

Table 3 Change in number of unemployed (%)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Czech Republic</td>
<td>57.5</td>
<td>3.6</td>
<td>-10.0</td>
<td>7.9</td>
<td>9.8</td>
<td>+74.0</td>
</tr>
<tr>
<td>Rural regions</td>
<td>55.0</td>
<td>4.6</td>
<td>-12.0</td>
<td>5.3</td>
<td>6.0</td>
<td>+59.1</td>
</tr>
</tbody>
</table>

Source: own processing based on the Public Database (CZSO)

3.4 Dispersion of unemployment rates over 2008-2013

We may notice from Figure 1 that as the crisis evolves and the economy tries to recover from its impacts, the dispersion of unemployment rates increases. This only illustrates the regional character of impacts that respects the particularity of each and every location and its ability to react and deal with such an external shock. As it was expected, prior to the crisis (2008) the overall condition of the economy was relatively good (low unemployment rate, low dispersion between the regions). However, from 2009 onwards the crisis enhances the regional differentiation, both on the national level as well as on the level of rural regions particularly. In fact, the rural is not homogenous group as also not any other categories of regions (e.g. urban) what only supports the existence of such dispersion.

Figure 1 Annual dispersion of unemployment rates (coefficient of variation) in the Czech Republic (CZ) and rural regions (RR)

Source: own processing based on the Public Database (CZSO)

As we already acknowledge the existence of great variance on the national level and the level of rural regions, Figure 2 and Figure 3 illustrate the minimum, maximum and median values achieved on these varied unemployment rates. At the level of the Czech Republic as a whole (Figure 2), we may see increasing absolute difference between minimum and maximum unemployment rate reported on the level of regions as well as the increasing median value (with slight decline in 2011). The same trend holds also for rural regions (Figure 3).

Figure 2 Variance of unemployment rates (in %) within the Czech Republic

Source: own processing based on the Public Database (CZSO)
However, rural regions show lower absolute difference between minimum and maximum in their individual regions. On the other hand, we may also notice that the minimum values on the national level are recorded below those of rural regions what indicates the existence of economically stronger regions to the rural ones (that is obvious, e.g. regions around the Prague). The maximum values from 2010 onwards are achieved by rural regions.

**Figure 3** Variance of unemployment rates (in %) within rural regions

![Graph showing variance of unemployment rates within rural regions](image)

Source: own processing based on the Public Database (CZSO)

3.5 Particularity of unemployment development in the example of best and worst performing rural regions

While looking at the Figure 4, we may observe the change of unemployment rates within the period 2008-2013 in the example of two best and two worst performing rural regions (as well as the reference group of the Czech Republic and the rural regions – PR). The best performing rural regions (Benešov and Plzeň-jih) keep the unemployment rates below the national level as well as the rural one. On the other hand, the examples of worst performing regions (Jeseník and Bruntál) show higher vulnerability in relation to the economic crisis and subsequent economic regeneration. The unemployment rate of Bruntál is increasing even during the whole period. From Figure 4 it is important to acknowledge the existing heterogeneity among the rural regions what only further supports the particularity of their development as well as the need of regionally designed strategies that will fully utilize their potential and respect their needs.

**Figure 4** Annual developments of unemployment rates in two best and two worst performing rural regions\(^1\), Czech Republic and rural regions

![Graph showing annual developments of unemployment rates](image)

Source: own processing based on the Public Database (CZSO)
4 Conclusions

The presented results, describing the impact of recent economic crisis on the unemployment development in the Czech Republic as a whole and its rural regions, further support the understanding of the group of rural regions as those that are not significantly more vulnerable to such an external shock. However, some conclusions can be drawn regarding the rural regions as a group as well as their individual examples.

First, the pp increase of the unemployment rate in the rural regions as a result of crisis from 2008 to 2013 was even slightly lower than the national one. This implies that the characterization of the rural regions as those of higher economic vulnerability and instability is not fully right. On the other hand, the observed development may be attributed to rural specifics, especially those related to the structure of rural employment and the character of business/trade networks in which rural businesses are involved.

Second, the overall (national) increase of the unemployment rate within the observed time period was on faster pace than in the rural regions. Moreover, the increase in the number of the unemployed on the national level is only by 15.4% attributable to the increase in the number of the unemployed in rural regions. It demonstrates the existence of rural labour market specifics that have the potential to mitigate impacts of such an external shock (e.g. the role of public sector in providing the employment), but also questions the issues related to the attractiveness of these location for the creation of business networks (regional, national, international) that may enhance the regional vulnerability at the time of crisis considering the business dependence on external factors (and resulting decisions about layoffs).

Third, the dispersion of the unemployment rates described by the coefficient of variation as well as the development of minimum, maximum and median values on the national level and the level of the rural regions further points out to the existing heterogeneity on the level of individual regions of any kind (rural, urban, intermediate). Therefore, as in the group of Czech regions as a whole and particularly in the group of the rural regions, we may find examples of well-performing as well as worse performing regions when we need to inevitably refer to existing regional differences (see the example of Jeseník and Bruntál on one hand, and Benešov and Plzeň-jih on the other). This gives some support to the need of regionally designed strategies that will fully utilize regional potential and respect regional needs, especially related to the mitigation of impacts of the recent economic crisis.

Results from the present study point towards the higher attention both of researchers and policy makers on the issues related to special rural labour market characteristics. In this sense, we may focus on the structure of employment (public and private employment providers) as well as the character of existing networks that create the preconditions for successful economic recovery in certain regional conditions.

Acknowledgement

The support of the paper came from the research project of the Charles University Grant Agency (GAUK), project no. 1310514, entitled „Podnikání na venkově pro venkovskou zaměstnanost – venkovská zaměstnanost pro životaschopný venkov“.

References


