ANALYSIS OF LONG-TERM UNEMPLOYMENT IN THE CZECH REPUBLIC

Tomáš Löster, Jana Langhamrová

Abstract

Unemployment is one of the basic indices, which evaluates the economy. It is not only for this reason that great attention is paid to unemployment and its extent by many economists and analysts. Long-term unemployment is a serious problem. This designates the situation where an unemployed person has been out of work for longer than one year. Persons who have been unemployed for longer than one year at present represent more than 50% of the total number of unemployed in the EU countries. For comparison it is often stated, for example, that in Japan long-term unemployment is around 15 %. Apart from the economic impacts, long-term unemployment also has a number of other social impacts. These include loss of work habits, loss of contact with normal social life, but also psychological problems, laziness, etc. One of the problems in relation to long-term unemployment is considered to be the generosity of social benefits. Pavelka wrote, see [Pavelka, 2011]: "*Unemployment and especially long-term unemployment may lead to higher unemployment in the future*". This article deals with the analysis of the extent of long-term unemployment in the Czech Republic from various aspects.

Key words: Unemployment, long-term unemployment, economic activity, rates of dynamics, analysis of variance.

JEL Code: C19, C29, C39, E24,

Introduction

The classification of persons who have reached the age of 15 or older in relation to the labour market is called economic status. The entire population is divided up into persons who are economically active and economically inactive. Among the economically active persons are employed and unemployed persons. Employed persons are considered to be those persons aged 15 or over who belong to one of the two following groups; whether they are in paid employment or are employed in their own business.

Unemployed persons are considered to be, according to the Czech Statistical Office (CZSO), all persons over the age of 15 who in a given period simultaneously meet these three conditions:

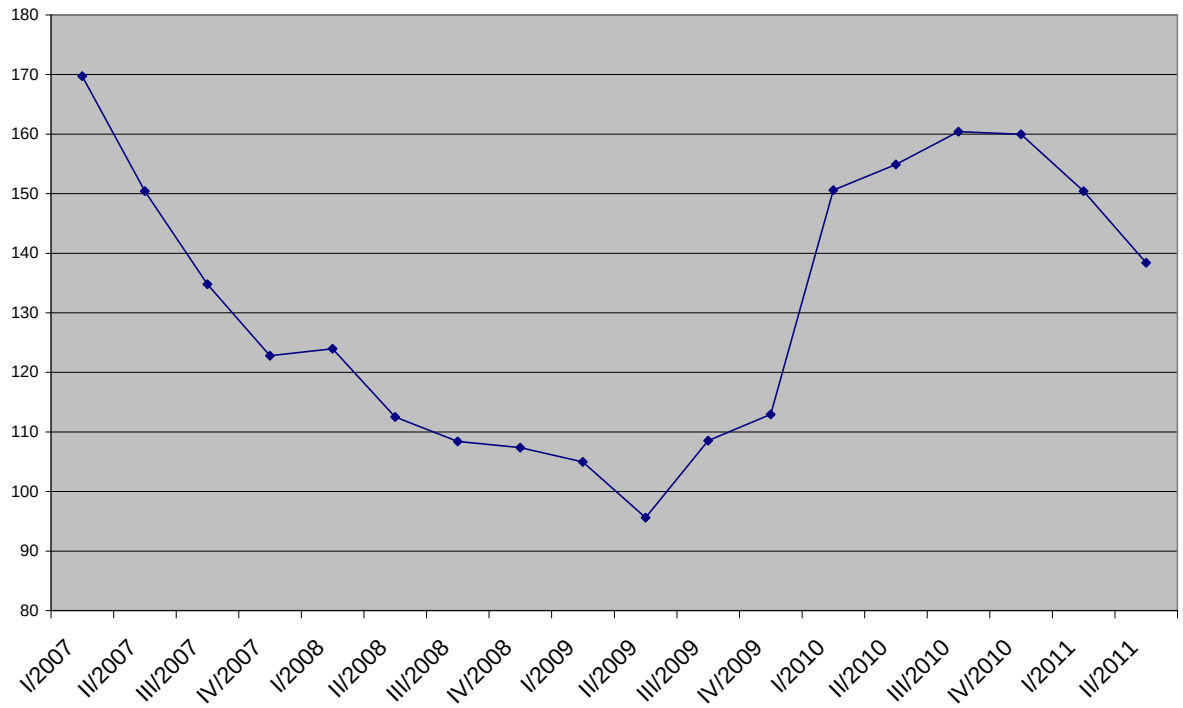
- They were not employed in the given period,
- They were actively seeking employment,
- They were prepared to start work at latest within 14 days.

An active form of seeking employment is considered to be searching for work with the help of the labour office or seeking work in firms, using advertisements, or taking various steps towards the establishment of a firm, or some other method (see CZSO).

In the case that a person does not simultaneously meet all the given conditions, this person is described either as employed or economically inactive. As is stated in (CZSO), the only exceptions are persons who are not looking for work because they have already found some, but the start of this work is set for a later time (not longer than 3 months away). According to Eurostat these persons are also classified among the unemployed.

For the measurement of unemployment various relative indices are used (rates). The unemployment rate represents the proportion of unemployed persons in the total workforce. The differences between individual indices lie in the various methods for the stipulation of the numerator and denominator of the given index. Among the indices, which the CZSO studies there are (see CZSO), the general rate of unemployment, the long-term unemployment rate, specific rates of unemployment (according to age, social or other groups of the population), the level of economic activity and the level of employment. A detailed description of the individual calculations can be found on (CZSO). The long-term unemployment rate is defined as the proportion of persons who are unemployed for a period of over one year and of economically active persons, i.e. of unemployed and employed. Within the framework of this article data are analysed from 2007 to 2011, which originate from the Labour Force Survey (LFS).

Fig. 1: Development of the number of long-term unemployed in the Czech Republic (in thousands)

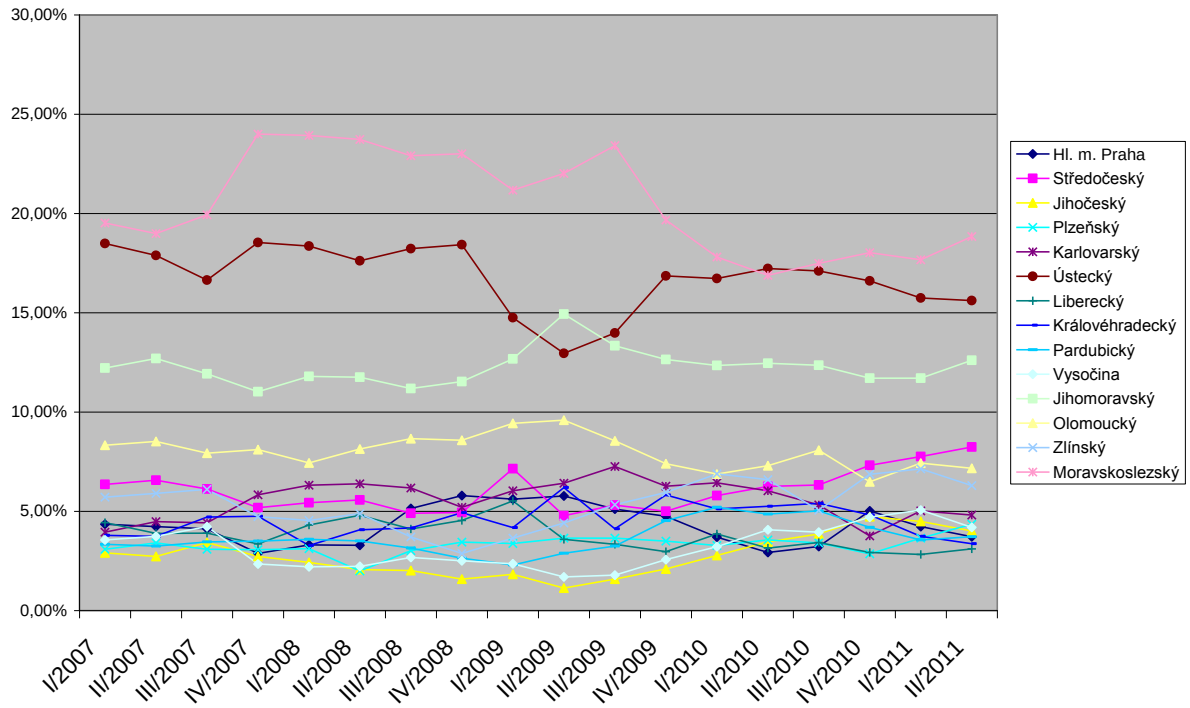


Source: CZSO

From the graph on Fig. 1 it emerges that in the first part of the studied period there was a considerable drop in the number of long-term unemployed – from the value of 170,000 in the first quarter of 2007 to the value of 95,000 long-term unemployed in the second quarter of 2009. In the second part of the period studied this figure again increased, to the value of 160,000 in the third quarter of 2010.

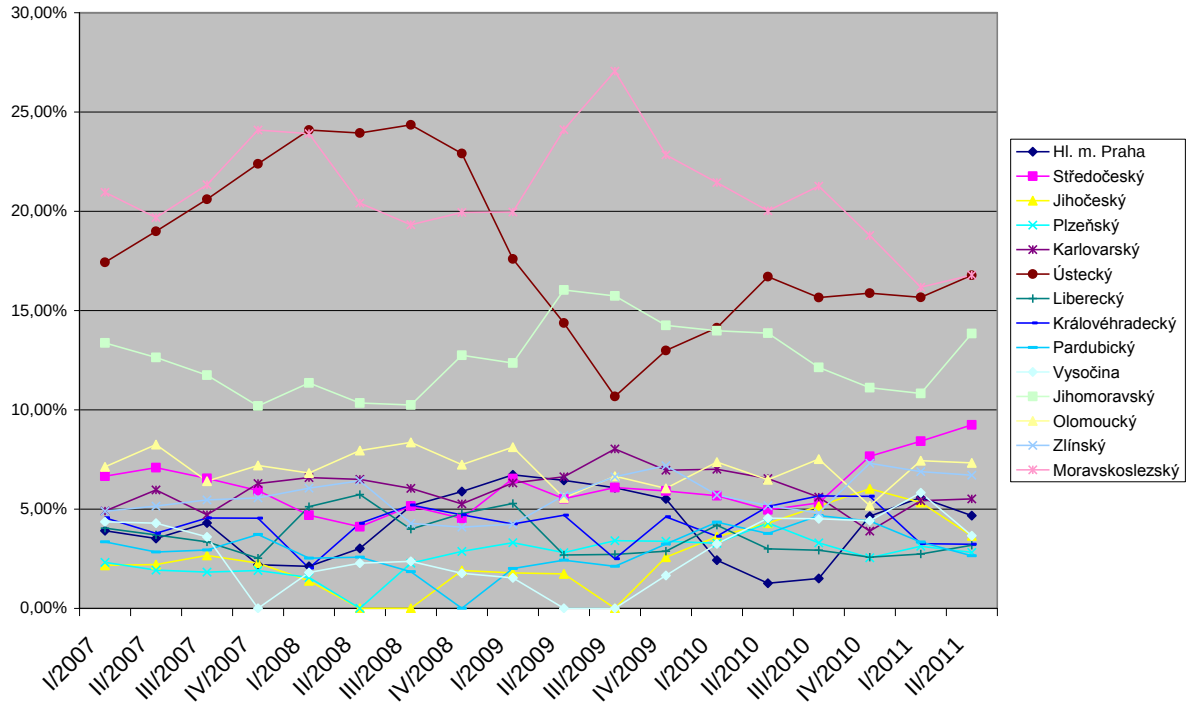
From the graph on Fig. 2 the development is evident of the shares of the individual regions in the total number of the long-term unemployed. The shares of the individual regions were relatively stable throughout the studied period. It is evident that the share of the Moravian-Silesian Region in the total number of long-term unemployed was the highest, amounting to almost 20 % of the total number. From the point of view of the share in the total number of long-term unemployed it is not surprising that the Ústí Region was in second place for almost the entire period.

Fig. 2: Development of the share of individual regions in the total number of long-term unemployed



Source: CZSO, own calculations

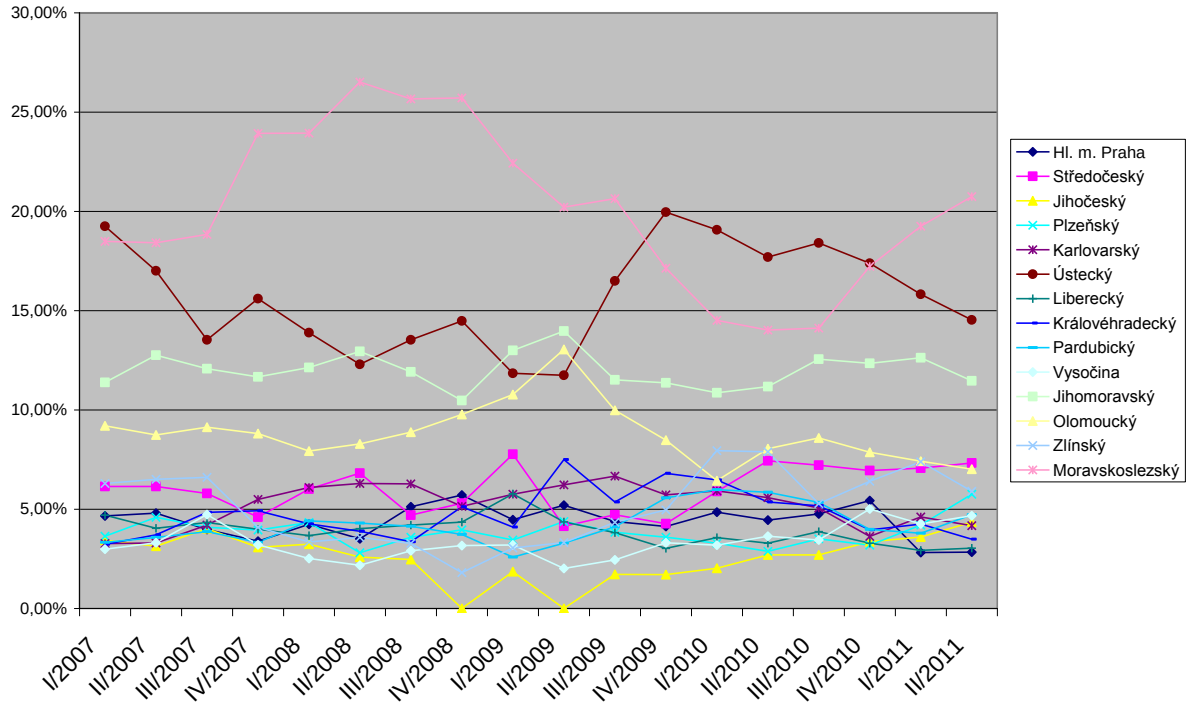
Fig. 3: Development of the proportion of long-term unemployed men in the individual regions



Source: CZSO, own calculations

From the graph in Fig. 3 the development of the shares of long-term unemployed men in the individual regions in their total number is evident. Here, too, it is clear that the Moravian-Silesian and Ústí Regions are in the leading places, i.e. their shares are the highest.

Fig. 4: Development of the proportion of long-term unemployed women



Source: CZSO, own calculations

From the graph in Fig. 4 the development of the shares of long-term unemployed women in the total number of long-term unemployed in the individual regions can be seen. Here, too, the leading shares of the Ústí and Moravian-Silesian Regions are evident.

Table 1 contains the basic rates of the dynamics of the development of the total number of long-term unemployed (in thousands of persons). The average inter-quarterly change is given here in thousands of persons (average difference) and the average inter-quarterly change in percentages (average relative increment) of the total number of long-term unemployed for the entire period (1st quarter of 2007 to 2nd quarter of 2011). It is evident that in the course of the period studied there was a drop in the total number of long-term unemployed, by 1.9 % inter-quarterly. The biggest drop occurred in the Liberec Region, where on average there was an

inter-quarterly drop in the number of long-term unemployed by 3.23 %. In the Plzeň Region, on the other hand, there was an average inter-quarterly increase of 0.82 %.

Table 1: Development of the total number of long-term unemployed

Area/region	Average difference	Average relative growth
Czech republic	**-1,8427**	**-1,19%**
Praha	-0,1311	-2,09%
Středočeský	0,0362	0,33%
Jihočeský	0,0365	0,70%
Plzeňský	0,0457	0,82%
Karlovarský	-0,0030	-0,04%
Ústecký	-0,5752	-2,17%
Liberecký	-0,1891	-3,23%
Královéhradecký	-0,1041	-1,88%
Pardubický	-0,0301	-0,56%
Vysočina	-0,0143	-0,24%
Jihomoravský	-0,1933	-1,01%
Olomoucký	-0,2481	-2,06%
Zlínský	-0,0578	-0,63%
Moravskoslezský	-0,4148	-1,40%

Source: CZSO, Own calculations

In Table 2 are given the rates of the dynamics of the development of the number of long-term unemployed men. In comparison with the development of the total number of long-term unemployed the number of long-term unemployed men dropped more slowly. It is evident that the fastest drop in the number of unemployed men occurred in the Hradec Králové Region. The greatest increase, on the contrary, was recorded by the South Bohemian Region, where there was an inter-quarterly increase in the number of long-term unemployed men by 2.73 %.

Table 2: Development of the number of long-term unemployed men

Area/region	Average difference	Average relative growth
Czech republic	**-0,2565**	**-0,37%**
Praha	0,0197	0,67%
Středočeský	0,0837	1,56%
Jihočeský	0,0523	2,73%
Plzeňský	0,0138	0,79%
Karlovarský	0,0110	0,31%
Ústecký	-0,0701	-0,60%
Liberecký	-0,0440	-1,77%
Královéhradecký	-0,0637	-2,38%
Pardubický	-0,0362	-1,75%
Vysočina	-0,0383	-1,39%
Jihomoravský	-0,0160	-0,17%
Olomoucký	-0,0102	-0,20%
Zlínský	0,0583	1,49%
Moravskoslezský	-0,2168	-1,67%

Source: CZSO, own calculations

In Table 3 are given the rates of the dynamics of the development of the number of long-term unemployed women. From the table it is clear that the number of long-term unemployed women dropped faster than the number of long-term unemployed men. The number of long-term unemployed women in the Czech Republic dropped inter-quarterly on average by 1.86 %. The highest average inter-quarterly drop occurred in the capital city of Prague, by 4.67 %.

From Fig. 5, which contains the output from the STATGRAPHICS PLUS system, one can see the course of the dispersion analysis, which investigates whether dependence exists between the long-tern unemployment rate and the region. From the p-values given it is clear that on the 5% level of significance the tested hypothesis of the equality of medium values is rejected and that therefore at least one region exists where the medium value of the long-term rate of unemployment is significantly different. It is therefore possible to state that the long-term unemployment, or rather its rate, is statistically significantly dependent on the regions.

Table 3: Development of the number of long-term unemployed women

Area/region	Average difference	Average relative growth
Czech republic	**-1,5861**	**-1,86%**
Praha	-0,1508	-4,67%
Středočeský	-0,0474	-0,83%
Jihočeský	-0,0159	-0,48%
Plzeňský	0,0319	0,83%
Karlovarský	-0,0140	-0,45%
Ústecký	-0,5051	-3,47%
Liberecký	-0,1451	-4,35%
Královéhradecký	-0,0404	-1,41%
Pardubický	0,0061	0,18%
Vysočina	0,0240	0,76%
Jihomoravský	-0,1773	-1,82%
Olomoucký	-0,2380	-3,40%
Zlínský	-0,1161	-2,22%
Moravskoslezský	-0,1980	-1,19%

Source: CZSO, own calculations

Fig. 5: Output from the Statgraphics Plus system

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ANOVA Table for Dlouhodoba_nezam by kraj

                          Analysis of Variance
-------------------------------------------------------------------------------
Source             Sum of Squares     Df  Mean Square    F-Ratio      P-Value
-------------------------------------------------------------------------------
Between groups              94,877     13      7,29823       5,89       0,0000
Within groups               49,583     40      1,23957
-------------------------------------------------------------------------------
Total (Corr.)               144,46     53
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Conclusion

Unemployment is one of the basic indices, which evaluate the economy. It is not only for this reason that many economists and analysts devote great attention to unemployment and its rate. Long-term unemployment is a serious problem. Apart from the economic impacts, long-term unemployment also has a number of other social impacts. On the basis of the analyses carried out it is possible to state that there is an average inter-quarterly drop in the total number of long-term unemployed persons in the Czech Republic by 1.19 %. Regions

also exist, however, (Central Bohemia, South Bohemia and Plzeň), where there occurs an average inter-quarterly rise in the total number of long-term unemployed. The most rapid average inter-quarterly drop occurs in the Hradec Králové Region in the case of men (2.38 %) and in Prague in the case of women (4.67 %). The fastest average inter-quarterly rise in the number of long-term unemployed, on the other hand, is in the Plzeň Region (0.83 %) for women and in the South Bohemian Region for men (2.73 %). On the basis of the dispersion analysis carried out it was ascertained from the STATGRAPHICS output that the long-term unemployment rate is influenced by the region. It was further found that the share of the Moravian-Silesian Region in the total number of long-term unemployed is the highest. It is followed by the Ústí Region, which holds second place for almost the whole of the period studied as far as concerns the share in the total number of long-term unemployed.

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