

## THE SITUATION OF THE REGIONAL LABOR MARKETS WITH THE HYPOTHETICAL ABSENCE OF FOREIGN DIRECT INVESTMENT

\*SYLVIE KOTÍKOVÁ

*Faculty of Economics, Technical University of Liberec,  
Voroněžská 13, 406 01 Liberec  
Email: sylvie.kotikova@tul.cz*

The paper was processed under the SGS grant - Crossborder migration of labour mobility as a consequence of the international companies' localisation.

**Abstract:** This article focuses on the quantification of the utility of the system of investment incentives in the case of six selected regions in the Czech Republic. Based on comparative analysis of information from the annual reports of multinational companies and statistics of the Czech Statistical Office and the data government agency CzechInvest is quantified impact of the direct effect of creating jobs in foreign direct investment, which received investment incentives. The contribution of these investments to solve the problem of high unemployment rates is illustrative of a hypothetical rate of unemployment. It means what would be the situation of the regional labor markets in the case of absence of these investments.

**Keywords:** Foreign direct investment, investment incentives, labour market, rate of unemployment

### 1 Introduction

Foreign direct investment (FDI) is a term that is mentioned worldwide. This is a phenomenon that can be seen as a key barometer of future prospects of the economy. It is not possible to say that international capital flows into the Czech Republic, including FDI, were low (Hlaváček and Bal-Domanska, 2016). There are rather difficulties associated with the absorption of economy, especially with the low flexibility of Czech domestic enterprises, banks, local authorities and government responsiveness. There is a slow reaction on the impulses from this kind of capital (Benáček, 2000).

The aim of this paper is the evaluation of the direct effect of creating new jobs in FDI, located in the six selected regions of the Czech Republic. The subject of the research is about (Multinational Companies) MNC's that have localized their examined branches in these regions and received investment incentives.

### 2 Selected impacts of FDI

The capital inflow of long-term character can be considered as the first direct positive effect of FDI as it simultaneously complements insufficiently generated financial capital in the host regions (lack of savings), which is expressed by the well-known equation:

$$I_f = (S - I) + (T + G) \quad (1)$$

It means net foreign capital inflows  $I_f$  (including FDI) fills a gap in supply deficits domestic private (S) and public savings (T) relative to domestic investment demand (I) and the needs of government spending (G). At the same time there is a reducing the domestic price of home insufficiently generated financial capital.

An often overlooked effect of FDI that stands „in the shadow” of major economic effects is the impact on the institutional environment. Changes in the institutional environment can occur in many ways. It can be for example a change in governmental functions or in the area of protection of property rights. This effect is ultimately form the so-called signaling negotiations when thanks to FDI outward improve of host economy can be seen by the efficiency and credibility of local markets.

One of the main risks is associated with the creation of the so-called dual economy, which is in the Czech Republic relatively high. On the one hand, there are prosperous and growing businesses linked to foreign capital and holders. On the other hand, there are undercapitalized former state corporations with

still unresolved property rights, which are struggling for the favor of the state and avoid the need for intensive restructuring. The conflict between these two sectors consists in the different production capabilities that make domestic manufacturers unable to produce in higher qualities.

This leads to adverse vertical product differentiation. Due to this fact, the mutual competition between domestic and foreign firms weakens temporarily. At the same time, each of them operates to other existing markets. This has an impact not only on price relations between them, export opportunities and on wages, but also on the possibility of taking over advanced technologies (Benáček, 2000).

The creation of a dual economy can be supported by investment incentives and incentive redistribution that is caused by them, from subjects that do not benefit from investment incentives and pays taxes to the entities benefiting from an investment advantage. The actual allocations of investment builds «taxpayer incentives» to a considerable disadvantage as compared «beneficiaries» are not able to offer their employees such high salaries, as would be gained by recipient incentives". Furthermore, the non-beneficiaries have to face "ordinary paying taxes" which results in higher customer prices. (Kotíková and Čuhlová, 2015)

Crowding out and liquidation of domestic competitors is considered as the key negative effect of FDI. This phenomenon is certainly severely frustrating for producers on the domestic side. On the other hand, it is a standard phenomenon of healthy market reallocation of resources where efficient producers extrude inefficient producers from the market.

### 3 Methodology of the survey - description of the researched sample

The direct effect of job creation will be studied in a sample of six regions of the Czech Republic. Respectively the impact of FDI will be identified within the business environment of Pilsen, Carlsbad, Ústí nad Labem, Liberec, Hradec Králové and the Pardubice region. A common characteristic of these regions is their border position, which calls for international cooperation and greater cross-border business activities. The following calculations reflect respectively in how far these regions can exploit comparative advantages of these excellent locations.

The primary source of data is the statistic that issued decisions about granting investment incentives published by CzechInvest (2017). Secondary source are financial statements and annual reports of foreign companies that have received the promise of investment incentives (Ministry of Justice, 2017). Lists published by CzechInvest show evidence of FDI including information about regional location, country of origin of the investor, sector, granted investment incentives, the promise of new jobs and additional information.

CzechInvest (2017) mentions that since January 1st, 2017 from a total of 1,053 projects, 536 projects were from foreign companies. Of which 230, respectively 43% were made in the sample regions. Specifically:

- in the Pilsen region were promised 38 FDI projects,
- in the Carlsbad region were promised 14 FDI projects,
- in the Ústí nad Labem region were promised 105 FDI projects,
- in the Liberec region were promised 25 FDI projects,
- in the Hradec Kralove region were promised 23 FDI projects,
- in the Pardubice region were promised 25 FDI projects.

Given that in the first half of the year 2017 was available annual reports of companies analyzed until 2015 (Ministry of Justice, 2017) in the context of the research are modified data of actual investment incentives granted in this way:

- in the Pilsen region 38 FDI projects were supported with investment incentives,
- in the Carlsbad region 11 FDI projects were supported with investment incentives,
- in the Usti nad Labem region 98 FDI projects were supported with investment incentives,
- in the Liberec region 25 FDI projects were supported with investment incentives,
- in the Hradec Králové region 20 FDI projects were supported with investment incentives,
- in the Pardubice region were 22 FDI projects supported with investment incentives (CzechInvest, 2017).

The most important method, that was used, is the so called comparative analysis. Representative data on the regional labor market announced by the Czech Statistical Office (2017) are afterwards compared with figures from annual reports examining FDI. The consequence of analyzed FDI cases on regional labor markets is expressed by variances between the actual rate of joblessness on the one side ( $u$ ):

$$u = \frac{U}{L} * 100 \quad (2)$$

and on the second side the hypothetical unemployment rate ( $u_h$ ):

$$u_h = \frac{U+E_{FDI}}{L} * 100 \quad (3)$$

where  $U$  expresses the contemporary number of unemployed persons published by the Czech Statistical Office (CSO),  $L$  labor and  $E_{FDI}$  the quantity of the number of employees in the examined FDI in every year - see formula (4) (Kotíková, 2014).

$$E_{FDI} = \sum_{i=1}^n E_{FDI_i} \quad (4)$$

The selected methodology constitutes the real situation of the labor market in the examined Czech regions supposing the absence of FDI. In lack of FDI, or at their location in different region, the figure of unemployed people would raise by the number of newly created jobs  $E_{FDI}$ . It is the uttermost perspective of states on regional labor markets.

This methodology also represents the importance of investment incentives benefits, due to the defined expressions that were mentioned above, it is the FDI which gained investment incentives.

The problems associated with this methodology are that companies often employ people from different regions and also foreigners. Unfortunately, this state / situation is difficult to define. To define the real effect of FDI on regional unemployment rate, it is essential to reduce the hypothetical calculations unemployment rate ( $u$ ) from the impact of foreigners ( $u_h - F$ ).

For the calculation of the effect of new job positions connected with home supply of labor it is expected to find dependencies among the immigrant inflow and FDI. It is necessary to calculate whether there is an existing dependence among FDI inflow and foreigners. This dependence will be specified by mentioned correlation analysis. The test of variables will be presented at the 5% significance level.

From the percentage of foreigners in total employment in individual region, this share will be used to calculations based on the formula (4) for particular years. This will give the framework of employment rate in these places, or how many of these new

positions are occupied by foreigners, and how many of them are occupied by local inhabitants.

To represent the true impact of FDI on regional labor market it is necessary to reduce the effect of immigration in the individual region from the hypothetical unemployment rate ( $u$ ). From mentioned computations can be expressed the real effect of FDI that is benefited from investment incentives on regional labor markets. Using the selected methodology made it possible to calculate the primary effect of the creation of new jobs due to FDI at various grades – e.g. the effect of placement of FDI from a concrete industrial zone on the labor market of the territories and counties, present a collation of the impact of different industrial zones at various regional grades or identify the contrast of the effect of FDI on reducing regional unemployment rates among regions (Kotíková, 2016).

#### 4 Results

For more accurate quantification of the development of primary jobs in the FDI and the attainment of the objective of this merit, it is necessary to define if there is an examined relationship among the inflow of FDI and foreigners in these regions. Table 1 represents results of the measurement indicating the dependency through correlation analysis, where the regions are sorted in descending order according to power dependence between the variables.

Tab. 1: The results of the analysis of dependence between FDI and the number of employed foreigners

Analysed region	Value of correlation coefficient
Ústí nad Labem	0,7013
Carlsbad	0,7552
Liberec	0,8615
Pardubice	0,6228

Source: own processing based on calculations from data of the Czech National Bank (2016) and the CSO (2017)

In four of the analyzed six regions was proved by correlation analysis linear relationship between FDI inflows (illustrated recalculated FDI per 1000 population) and the numbers employed foreigners in regions - except Pilsen and Hradec Králové region where on the significance level of 5% was not proven a linear relationship between the two variables.

##### 4.1 The primary impact of FDI on the labour market in the Pilsen region

From the annual reports of companies meeting the criteria for FDI and receiving investment incentives, data on the number of jobs created in individual years in the period 2002 – 2014 was identified. Due to the use of the chosen method of calculation in the Pilsen region, the impact of FDI reduced unemployment in the size of about 3.19 percentage points per year. This corresponds to the area between the blue and the red curve in Fig. 1. The graph also shows that the gap between FDI and the unemployment rates increases over the years with the growing influence of FDI. FDI in this region have created an average of 9,900 jobs.

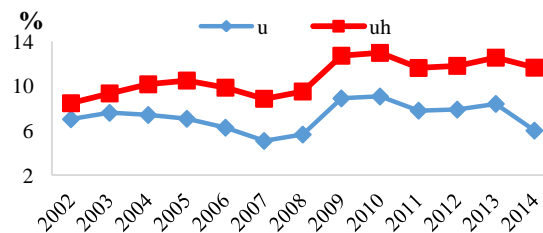


Fig. 1: Comparison of real and hypothetical unemployment rate in the case of the Pilsen region

Source: own processing, data CSO (2017) analyzed the annual reports of FDI (2017)

#### 4.2 The primary impact of FDI on the labour market in the Carlsbad region

In terms of the economic structure of the Carlsbad region that belongs to regions with varied economic structures, this region is mainly influenced by tourism and traditional industrial sectors such as glass industry and the production of porcelain. The economy of the region has a great variety. On one side there is a development of the traditional fields of light industry, on the other hand, an important position belongs to the engineering.

The Carlsbad region being a region of low concentration of FDI has the potential for future investors due to its economic diversity. This is an area for future investors with the possibility of establishing appropriate trade links with the existing businesses. Simultaneously, this region has the comparative advantage of cheap labour in comparison to neighboring Germany.

This poorness of the region is enhanced by the low mobility of the staff and the reluctance to commute to work. Long-term unemployment that is higher than the national average is defined by a high portion of the unemployed with basic or incomplete basic education. This category represents almost half (42%) of all job applicants (Ministry of Labor and Social Affairs, 2014).

The leverage of FDI benefiting investment incentives in the Carlsbad region the unemployment rate in comparison with the Plzeňský region is quite low - 2.43 p.p. The development of the hypothetical unemployment rate ensues from the development of a real one, is illustrated in Figure 3, there has not performed the growing trend (Kotíková, 2016).

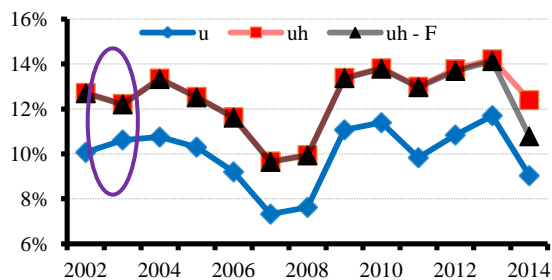


Fig. 2: Comparison of real and hypothetical unemployment rate adjusted for the impact of migration in the Carlsbad region

Source: own processing, data Czech Statistical Office (2017), CzechInvest (2017), annual reports of analyzed FDI (2017)

The number of newly created jobs is also relatively low, about 2,400 thousands which is due to a low inflow of FDI into the region. However, the newly created jobs as in the other of the six examined regions are almost all occupied by local inhabitants (97%). It is worth mentioning that the dropping lines of the hypothetical rates in year 2003 illustrate the outflow of investors from the region (Kotíková, 2016). Furthermore, the significant drop in the last year of the graph indicates the hypothetical adjusted unemployment rate on the impact of migration to the region in the last analyzed year, caused by a significant increase in the year-on-year inflow of foreign labor.

#### 4.3 The primary impact of FDI on the labour market Ústí nad Labem region

The first of the examined regions is the Ústí nad Labem region that represents the highest unemployment rate in the Czech Republic. A typical attribute is an unsettled educational and social structure of the region's population. In addition, the orientation and professional secondary education do not optimally cover the needs of the labor market, and it is often the case that graduates from schools and colleges are still unusable to be employed on the job market.

As a consequence of this state, a lot of conducted investment incentives are targeted to the Ústí region. In some cases, investors have to observe the structure of the population and built "assembly plants" that do not have to be oriented to the quality of human potential (Ministry of Labor and Social Affairs, 2017). The mentioned methodology above has been applied to the six selected regions of the Czech Republic.

The regular reports of companies fulfilling the standard of FDI benefiting investment incentives show the figure of jobs created every year in the period 2002 - 2014. The selected method of calculation in the Ústí nad Labem region served to calculate the effect of FDI in order to reduce the high unemployment rate in the magnitude of about 5.38 p. p. annually. This complies with the area among the blue and the black curve in figure 3.

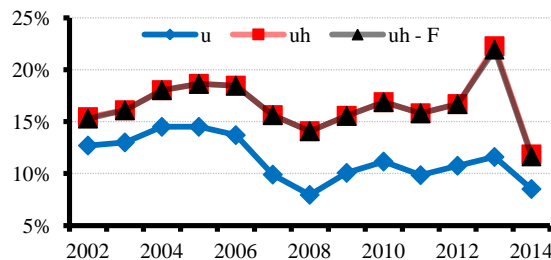


Fig. 3: Comparison of real and hypothetical unemployment rate adjusted for the impact of migration in the Ústí nad Labem region

Source: own processing, data Czech Statistical Office (2017), CzechInvest (2017), annual reports of analyzed FDI (2017)

FDI in this region have created on average over 19,500 positions. From the result there can be reported that examined MNCs have a significant effect on the regional labor market.

It is worth noting that almost 10% of the hypothetical unemployment rate in the last year of exploitation dropped over the previous year. This decrease was not caused by the outflow of investors from the region. New trends of recruitment through specialized agencies mainly caused this drop. In this case, hired staff is not employees of the company for which they work, but employees of the agency. Therefore they are not recognized in the annual reports of FDI as permanent staff.

Based on the quantification of the total share of employed foreigners in the region, it can be reported 97% of all job positions within the examined companies are occupied by the native population (Kotíková and Čuhlová, 2015).

Additionally, it was discovered that employment developments in FDI ensue from the trend in unemployment in the region and their effect on reduction of the unemployment rate has remained relatively stable. The development of the unemployment rate ( $u$ ) and the consequences of hypothetical unemployment rate ( $u_h$ ), the hypothetical unemployment rate adapted for the effect of foreign nationals ( $u_h - F$ ) is illustrated in the Figure 3 (Kotíková, 2016).

But it cannot with certainty content that without investment incentives and without localization of the FDI in the Ústí nad Labem region the unemployment rate was raising to values quantified ( $u_h$ ). It can be assumed that portion  $E_{FDI}$  be moved to domestic firms or they would start an own business. In spite of the fact that ( $u_h$ ) illustrates the specific pessimistic situation on the regional labor market, which without the localization of FDI could occur.

#### 4.4 The primary impact of FDI on the labour market Liberec region

Unlike in the Ústí nad Labem region, a significant problem in the labour market in the region is not high unemployment, but low productivity of labour. Labour productivity measured as the percentage of gross domestic product (GDP) per 1 employed

person in the Liberec region is around 500 thousand CZK, this fact ranks Liberec region on the lower positions within between-regions comparison (CEP, 2012). As in the Ústí nad Labem region, even in this case the labour market reflects the influence of exogenous discrepancy in supply of education and labour market requirements. Generally, the educational structure of the Liberec region is not too convenient. The share of university-educated population is the third lowest among the regions (CSO, 2017). Composition focus of FDI benefiting investment incentives that are localized in the Liberec region corresponds to the educational structure of the population - it is primarily a type of assembly plants (Ministry of Justice, 2017).

On the basis of calculations according to formulas (3) and (4) FDI which received investment incentives, have created on average of 4,500 new jobs, which was 97.3% occupied local population. The difference between the real and hypothetical unemployment rate adjusted for the impact of foreigners is on average 3 p.p. Figure 4 illustrates the development and the progress of these variables.

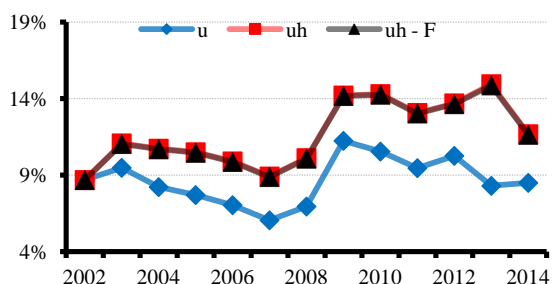


Fig. 4: Comparison of real and hypothetical unemployment rate adjusted for the impact of migration in the Liberec region  
Source: own processing, data Czech Statistical Office (2017), CzechInvest (2017), annual reports of analyzed FDI (2017)

#### 4.5 The primary impact of FDI on the labour market in the Hradec Králové region

Among factors that could negatively affect unemployment in Hradec Kralove region is the difficult access in peripheral parts of the region, the growing gap between supply and the demand on the labor market. For example, growing interest in technical fields, but the registered candidates are another focus. It is possible to identify different levels of educational establishments with little emphasis on practical skills in the Hradec Králové region (CSO, 2017).

In the Hradec Kralove region it was also found that employment trends in FDI follows the development of unemployment in the region was demonstrated significant growth trend, which is indicated in Fig. 5. If it was not incurred 10,200 jobs created in FDI, there would be an increase in regional unemployment rate at worst by about 2.6 percentage points.

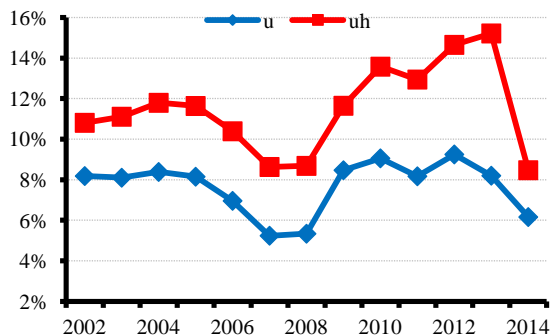


Fig. 5: Comparison of real and hypothetical unemployment rate in the case of the Hradec Králové region  
Source: own processing, data CSO (2017) analyzed the annual reports of FDI (2017)

#### 4.6 The primary impact of FDI on the labour market Pardubice region

In comparison with other regions of the Czech Republic is for Pardubice typical large number of small municipalities. Which is related to the difficult accessibility of peripheral parts of the region and the uneven distribution business background.

The relative openness of the region can be expressed for example by the indicator of the turnover of commuting in and to 1,000 residents employed economically active population. Values of the indicator are in the Pardubice region in the range from 258 (Pardubice) to 541 (Letohrad). Low values indicate a high degree of isolation movement for work in the region and viceversa low internal integration usually characterized by a relatively high commuting outside the borders of the region. This is a consequence of a developed infrastructure, especially the railway corridor Czech Třebová - Brno. The location on the main railway line and the stops of the majority of fast train connections greatly increased the possibility of commuting to other districts.

The proportion of people with a foreign citizenship to all inhabitants of the Czech Republic is generally low in the long term. In 2011, according to the results of the census and housing their proportion represented about 5%. The distribution of immigrant foreigners is related to a certain extent to the attractiveness of a region, particularly with regard to job offers. In the Pardubice region, the value of this indicator is annually around 3%. In the districts Chrudim and Svitavy at this level citizens of Ukraine are mostly represented, whereas in the district of Pardubice the citizens of Slovakia are mostly represented and in the district Ústí nad Orlicí dominated citizens are citizens of Poland.

The importance of human capital is growing, as well as the importance of its relationship to economic variables. The most commonly used measure of human capital is the highest level of educational attainment, or the number of years spent studying and eventually participation in further education. The extent of human capital can have a greater or lesser impact depending on the value range of other socio-economic indicators (Ministry of Education, Youth and Sports, 2015). CSO statistics show that the educational structure of the population of the Pardubice region is similar to an educational structure of the Czech Republic. The same applies to the unemployment rate of the Pardubice region, which is at the same level as the national unemployment rate of the Czech Republic (CSO, 2017).

In the Pardubice region, the situation on the labor market deteriorated significantly the situation of non-localization of FDI with government support as shows the similar situation in the Ústí nad Labem region. Specifically, an increase of the unemployment rate about 5.18% will result in the hypothetical loss of almost 14,000 jobs that are by 96.8% occupied by local population - see figure 6.

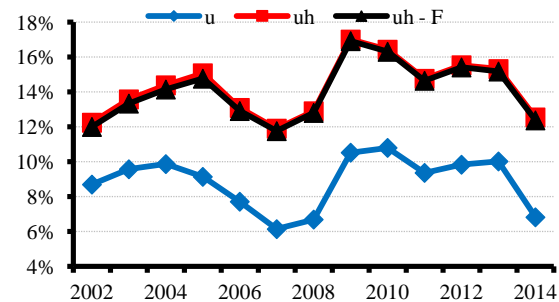


Fig. 6: Comparison of real and hypothetical unemployment rate adjusted for the impact of migration in the Pardubice region  
Source: own processing, data Czech Statistical Office (2017), CzechInvest (2017), annual reports of analyzed FDI (2017)

## 5 Conclusion

The global trend of liberalization of international business is currently one of the two driving forces of the flow of goods and services as well as capital itself. Over the last quarter century, the volume of international trade increased greatly and the volume of direct and portfolio investment increased even more rapidly. The second drivers are innovations in information technology that facilitate communication and dramatically blur the barriers of time and space (Šimanová and Trešl, 2011).

The inflow of foreign investments currently supports most governments around the world. Foreign investments could create a higher GDP growth, new jobs and thus affect the unemployment rate in different regions affect the business environment and increase the prosperity of the country as well. Both parts benefit from FDI- the multinational companies (MNCs) and host countries. The goal of a provider of investment is to increase profits, either through cost reduction or through the increase of revenues. MNCs locate their capital and technology into places that are attractive because of cheap labor, energy, low taxes and interesting investment incentives. All this represents an important reduction of costs for the investor. At the same time, the entry into a large market offers the opportunity of realizing large sales.

However, there are two sides of everything. FDI also have not only purely positive benefits for the host region as there are several advantages and inconvenient. A consequence often coming along with FDI is a high competition, which is due to its capital strength and consequently drags experienced employees from the already well-established local companies. In certain cases, international investors are only active in the region during the time they are benefiting from governmental support. The problem is that after the departure of FDI, unemployed people remain and the initial greenfield investment becomes a more untapped brownfield area.

Economists often disagree about whether the investment incentives have a positive influence and even if there are necessary. Investment incentives can be considered beneficial if the country attracts unique investors who differ from domestic producers, by bringing them specific know-how and managerial practices that eventually spill-over on businesses environment on the level of regions or even respectively in the country. On the other hand, investment incentives cause unfair redistribution from entities that do not profit from investment incentives as they regularly pay taxes to entities benefiting from an investment advantage. The actual allocation of investment builds a considerable disadvantage for „taxpayer of incentives” compared to „beneficiaries” who are able to offer their employees such high salaries.

This paper tried to highlight the purpose and benefits of investment incentives in terms of job creation. Whether investment incentives represent a significant expense of the state budget, hypothetical modeling of regional unemployment rates, at least in part to illustrate their socio-economic benefits. As evidenced by the following table. Table 2 summarized the results above.

Tab. 2: Summarization of calculations of direct effect of job creation in selected regions for the period 2002 - 2014

Analyzed region	The average hypothetical increase in regional unemployment rates	The average number of new jobs created in FDI
Pilsen	3,19 p. p.	9,9 ths.
Carlsbad	2,43 p. p.	2,4 ths.
Ústí nad Labem	5,38 p. p.	19,5 ths.
Liberec	3,00 p. p.	4,5 ths.
Hradec Králové	2,60 p. p.	10,2 ths.
Pardubice	5,18 p. b.	14,0 ths.

Source: own processing based on own calculations on data from the CSO (2017) and annual reports analyzed FDI (2017)

## Literature:

1. Benáček, V.: Přímé zahraniční investice v české ekonomice. *Politická ekonomie*, 2000, no. 1, p. 7-22. ISSN 0032-3233.
2. CNB: *Přímé zahraniční investice za rok 2014* [online]. Praha: Česká národní banka, 2016 [see 2016-03-24]. Dostupné z: <[http://www.cnb.cz/miranda2/export/sites/www.cnb.cz/cs/statistika/platebni\\_bilance\\_stat/publikace\\_pb/pzi/PZI\\_2014\\_CZ.pdf](http://www.cnb.cz/miranda2/export/sites/www.cnb.cz/cs/statistika/platebni_bilance_stat/publikace_pb/pzi/PZI_2014_CZ.pdf)>.
3. CSO: *Statistické ročenky* [online]. Czech Statistical Office, 2017 [see 2016-03-24]. Available from: <<https://www.czso.cz/su/czso/katalog-produktu>>.
4. CzechInvest: *Investiční pobídky* [online]. Praha: Czechinvest, 2017 [see 2017-03-22] Available from: <<http://www.czechinvest.org/investicni-pobidky-nove>>.
5. Hlaváček, P. and Bal-Domanska, B.: Impact of Foreign Direct Investment on Economic Growth in Central European Countries. *Engineering Economics*, 2016, 27(3), p. 294-303. ISSN: 2029-5839.
6. Kotíková, S. Foreign Direct Investment from the Industry Zone Alpka and Its Impact on the Region Labour Market. *XVII. mezinárodní kolokvium o regionálních vědách* 1. vyd. Brno: Masarykova univerzita, 2014. S. 164 – 170. ISBN 978-80-210-6840-7.
7. Kotíková, S. Quantification of the Direct Impact of the Creation of Jobs Created by FDI in Selected Regions. *XIX. mezinárodní kolokvium o regionálních vědách* 1. vyd. Brno: Masarykova univerzita, 2016. S. 364 – 370. ISBN 9788021082731.
8. Kotíková, S. and Čuhlová, R.: Multinational Companies Benefiting From Investment Incentives and Their Impact on Labour Market of Ustecky Region. *XVIII. mezinárodní kolokvium o regionálních vědách* 1. vyd. Brno: Masarykova univerzita, 2015. S. 129 – 135. ISBN 978-80-210-7861-1.
9. Ministry of Education, Youth and Sports: *Regionální analýza Pardubického kraje* [online]. Praha, 2015 [see 2017-04-09]. Available online: <<https://www.google.fr/search?q=Region%C3%A1l%C3%AD+anal%C3%BDza+Pardubick%C3%A9ho+kraje&aq=Region%C3%A1l%C3%AD+anal%C3%BDza+Pardubick%C3%A9ho+kraje&aq=chrome.69i57.641j0j4&sourceid=chrome&ie=UTF-8>>.
10. Ministerstry of Justice: *Veřejný rejstřík a sbírka listin* [online]. 2017 [see 2017-03-23]. Available from: <<http://www.justice.cz>>.
11. Ministry of Labor and Social Affairs: *Analýza trhu práce za rok 2014* [online]. Karlovarský kraj, 2014 [see 2017-03-23]. Available online: <[https://portal.mpsv.cz/upcr/kp/kvk/statistiky/analiza\\_trhu\\_prace\\_v\\_karlovarskem\\_kraji\\_za\\_rok\\_2014.pdf](https://portal.mpsv.cz/upcr/kp/kvk/statistiky/analiza_trhu_prace_v_karlovarskem_kraji_za_rok_2014.pdf)>.
12. Šimanová, J. and Trešl, F.: Vývoj průmyslové koncentrace a specializace v regionech NUTS3 České republiky v kontextu dynamizace regionální komparativní výhody. *E + M Ekonomie a Management*. roč. 2011, vol. 14, iss. 1 s. 38 – 52. ISSN 1212-3609.

Primary Paper Section: A

Secondary Paper Section: AH