REGIONAL UNEMPLOYMENT AND INVESTMENT INCENTIVES IN CZECHIA

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Regional unemployment and investment incentives in Czechia

The paper aims to verify whether setting up the system of investment incentives in Czechia has determined the over-proportional location of supported jobs to regions with an over-proportional size of unemployed and thus meets the declared objectives of regional policy. Concentration analysis on the territorial level of districts and regions NUTS III of the Czechia was used to fulfil this goal. Regions according to the concentration of unemployed and supported jobs can be divided into five basic types: T1 – regions where the support is well targeted and implemented (regions with high unemployment and job support), T2 – regions with inappropriately targeted support (regions with low unemployment and high support), T3 – regions that are not eligible for support and support is realised on low level (low unemployment and low support), T4 – regions where support is lacking (high unemployment and low support), T5 – regions that cannot be clearly classified (their position changes significantly over time). Regional policy objectives are achieved through support realised in regions with a large amount of unemployment. Setting up a system of investment incentives in Czechia does not ensure an above-proportional direction of supported investments to regions with a larger size of unemployment and thus does not meet the declared objectives of regional policy.

Key words: investment, investment incentives, concentration, districts, regions, Czechia

INTRODUCTION

Investment incentives are still a very discussed topic. The governments in developing and transitive economies are actively using investment incentives to increase the attractiveness for investors. Czechia had already left the concept of traditional investment incentives before the long period of the economic policy of traditional investment incentives implementation was stopped in 1998. The suitable time for post-evaluation of their impacts (from different perspectives) is now. It is advisable to use the results for the concept of investment incentives that other governments are still using. This article focuses explicitly on the issue of territorial distribution of supported jobs in the context of the location of the unemployed. It answers the basic research question: "Did the settings (higher support of regions with high unemployment) of investment incentives in Czechia ensure that the supported jobs originated mainly in the regions with a concentration of unemployed?" The hypothesis is "Investment incentives meet the objectives of regional policy, specifically ensure that the supported jobs are created in the regions economically lagging, i.e. regions with a concentration of unemployment". This also corresponds to the specified objective of the article, which is: "To verify whether the setting up of the system of investment incentives in Czechia determined over the proportional location of supported jobs to regions with an over proportional amount of unemployment and thus meets the declared objectives of regional policy."

LOCATION OF INVESTMENT AND ROLE OF INVESTMENT INCENTIVES

Localisation factors influence the location of investments, and the characteristics of places attract or discourage investors. The location factors can be divided into: a) the concentration of investment in economically developed regions with lower unemployment, (which is a multiplication effect in generating the polarisation of the economy, the economies of scale, the market size and others) and b) deconcentrating factors (especially cost savings), see e. g. Vernon (1966), Markusen (1985) and Fujita et al. (2001). The task of investment incentives (public intervention in the regional policy) is to act against the concentration of investment in economically more robust regions and support economically lagging regions. But is it successful in reality?

Many studies show the effectiveness as well as the ineffectiveness of investment incentives. For instance, Crozet et al. (2004) examined the impacts of agglomeration and regional policy instruments on FDI (Foreign Direct Investments) in France. Lim (1983) has also analysed FDI in 27 developing countries. The authors determined the negative correlation between the amount of investment support and the volume of FDI. Liu et al. (2014) focused on investments in China since 1979 and evaluated localisation factors, including investment incentives. The authors found that government incentives have a negligible effect on the industry. Belkhodja et al. (2017) have shown (on the example of Chinese regions) that investment incentives and the environment have different influences on investors according to their origin. Investment incentives are essential for European investors. However, in Japan and South Asia, cultural and geographical proximity is more important (see also He and Long 2003). Basile et al. (2008) focused on the European environment and the importance of the EU cohesion policy (public intervention) in the process of space for multinational investment companies. They found an important role of the EU funds in the assessment of the attraction of peripheral regions.

However, these results are relevant only for regions with low technological levels. Mariotti and Piscitello (1995) also confirm (on the example of Italian regions) that investment incentives do not affect the imbalance of geographical placements of investment. Schal and Untiedt (2000) mentioned that investment incentives have a positive effect in a short period. However, investment incentives do not positively affect regional productivity and competitiveness over time. Fox and Murray (2004) ranked investment incentives very similarly. The effectiveness of investment incentives depends on the period in which they are realised. Klemm and van Parys (2011) analysed 40 Latin American and African countries using panel data between 1985 and 2004 and concluded that lower income tax rates and longer tax holidays effectively attract FDI. However, the new FDI do not lead to acquiring fixed capital and economic growth. Billington (1999) documented the uncertainty or zero impact of motivational policies on the flows of direct foreign investments in different countries. Bronzini and de Blasio (2006) also concluded that investment incentives were limited (based on a survey of Italian investors supported by the government).

INVESTMENT INCENTIVES AND FDI IN THE CZECH AND SLOVAK ENVIRONMENT

Jurajda and Stančík (2012) analysed the impact of foreign direct investments on national companies according to industrial measurement and target markets. The inflow of FDI has a) a positive effect on non-exporting companies and b) a negative impact on exporting companies. In the case of services, the influence is neutral. Pavlínek (2009) evaluated the role of direct foreign investments in Central Europe and found that FDI is attracted by economic clusters where investors can realise external savings from the size of markets, work resources, production factors, suppliers, infrastructure, institutions and innovation capacities. Therefore, developed and more industrialised regions attract more investment than less developed and less industrialised regions. Schäffler et al. (2017) states that Czechia represents a highly attractive target country for German direct investments in the Central and Eastern Europe region (CEE).

The authors analysed the localisation of German companies that have invested in Czechia and found that Czechia combines cheap and educated labour power and, at the same time, growing purchasing power. Similarly, Czechia was evalua-ted by Hecht (2017), who determined the agglomeration effects and workforce quality as key localisation factors. Valachyová (2006) determined that the location of FDI follows the geographical distribution of the processing industry at the beginning of the transformation. Dinga and Münich (2010) elaborated on the case study of TPCA (Toyota Peugeot Citroën Automobile Czech) investment (the largest foreign investment project in Czechia between 1993 and 2006) in the Kolín district. They evaluated this project in terms of its impact on the local labour market. The authors compared this project to the control group of districts without large direct foreign investments and identified a positive impact on unemployment.

Guagliano and Riela (2005) analysed the impact of the support of the industrial zone (specific investment motivational instrument) on the location of direct foreign investments in Czechia, Hungary and Poland. Their results show only a weak connection between the presence of the industrial zone and the FDI inflow. Hlaváček and Janáček (2019) researched various impacts of foreign investment and investment incentives on socio-economic development in Czechia, including that FDI and investment incentives are considered positive for a region's economic growth. Musil and Hedija (2020) analysed the relationship between investment incentives and the economic cycle and determined that investment incentives are pro-cyclic. Similarly, Dinga (2011) examined the impact of investment incentives on the location of direct foreign investment in Czechia in 2001 – 2007. The number of allocated incentives was relatively higher in districts with high unemployment. However, the positive effect of investment incentives is minimal. Bolcha and Zemplinerova (2012) conducted a conceptual analysis of the impact of investment incentives and the growth of supported companies in Czechia and pointed to very low incentive efficiency. Bobenič Hintošová et al. (2021) evaluated the effects of investment incentives on the inflow of foreign investments in Slovakia. They asserted that statistically significant positive impacts are only in the case of financial investment support, but fiscal incentives are not motivating. Táncošová (2019) focused on analysing the territorial distribution of investments in Slovakia. She mentioned that the increased inflow of FDI into the economy positively affects GDP growth and reduces unemployment. Fabuš and Csabay (2018) evaluated investment incentives as

a still-needed essential instrument for stimulating job creation and regulation of foreign investors' inflows in Slovak regions. Táncošová (2019) mentioned the problem of unequal territorial distribution and that more investments are directed to the economically stronger regions because the concentration of investment in the automotive sector is also risky. Evaluating investment incentives in the Czech and Slovak environments remains an unresolved topic.

METHODOLOGY

The basis of the analysis is a simple concentration analysis which allows the division of the regions according to the comparison of supported jobs and unemployment. The study is based on a variation of concentration analysis, usually used to evaluate a structure of a regional economy. The results are not less accurate than the results of regression analysis. Their advantage is that it is easier to understand. The analysis is performed at territorial levels a) "district" ("okres" in Czech), b) "Region NUTS III" (also "kraj" in Czech). The lower territorial units are problematic. The data for these units are often inaccurate. Using a lower territorial level distorts impacts caused by investment exceeding the boundaries of a small territorial unit. Using a higher territorial unit (NUTS II) is unsuitable due to the internal heterogeneity of these territories (having more centres). The position of the capital city of Praha is specific. Praha is in the analysis accepted as a district and region. The division of Praha into multiple sub-regions is purely administrative without real effects (it is a homogeneous area).

Databases of projects (list of investment incentives), which were created by the Ministry of Industry and Trade of the Czech Republic with the support of the Agency for Business and Investment Support – CzechInvest, are used as the data source. This database contains information about all projects in the Czechia supported by investment incentives. The database contains information concerning the entity requested for support, sector, NACE, type of investment project, country of origin, amount of investment, newly created jobs, public support, public support ceiling, district, NUTS III, NUTS, submission date, date of decision and incorporation into small and medium-sized enterprises. And the regional statistical data was obtained from the Czech Statistical Office with information on the number of unemployed and population (especially age structure).

The analysis contains indicators a) the number of supported jobs, b) the population in the productive age 15 – 64 (a primary indicator of the size of the region), and (c) the number of unemployed persons at the NUTS III and district levels. The following coefficients were used in the analysis:

(1) Coefficient of settlement

$$SP_{i,j} = \frac{X_{i,j}}{X_i},$$

where $X_{i,j}$ is the population in age 14 – 64 of the j-region of Czechia in i-year, X_i is the population in age 14 – 64 in Czechia in i-year.

(2) Coefficient of specialisation based on the number of unemployed

$$P(u)_{i,j} = \frac{Y_{i,j}}{Y_i},$$

where $Y_{i,j}$ is the number of unemployed in the j-region of the Czechia in i-year, Y_i is the number of unemployed in Czechia in i-year.

(3) Coefficient of specialisation based on the number of supported jobs (5 years)

$$P(s)_{i,j} = \frac{Z_{i-4,j} + Z_{i-3,j} + Z_{i-2,j} + Z_{i-1,j} + Z_{i,j}}{Z_{i-4} + Z_{i-3} + Z_{i-2} + Z_{i-1} + Z_i},$$

where $Z_{i,j}$ is the number of supported jobs in the j-region of the Czechia in i-year, Z_i is the number of supported employees in Czechia in i-year.

The 5 year period chosen is in line with regard the established sustainability in support of the rules. This aggregation is done to avoid temporary fluctuations.

(4) The localisation index is based on the number of unemployed and settlement

$$L(u)_{i,j} = \frac{P(u)_{i,j}}{SP_{i,i}},$$

where $P(u)_{i,j}$ is the coefficient of specialisation in j-region in i-year, $SP_{i,j}$ is the coefficient of settlement in j-region in i-year.

(5) Localisation index based on number of supported jobs (5 years)

$$L(s)_{i,j} = \frac{P(s)_{i,j}}{SP_{i,j}},$$

where $P_{i,j}$ is the coefficient of specialisation in j-region in i-year, $SP_{i,j}$ is the coefficient of settlement in j-region in i-year.

The value of localisation index can be a) $L_j > 1$, over-proporcional, b) $L_j < 1$, under-proporcional, c) $L_j = 1$, proporcional.

The indicators are well comparable. Inflation has no effect. The regions can be divided into four quadrants in accordance with the indicators. Q1 forms regions with an excessive representation of the unemployed and an excessive representation of supported jobs. These regions are optimal for support. Q2 forms regions with an excessive representation of supported jobs and insufficient representation of the unemployed. Support is redundant in these regions. Q3 includes regions with an insufficient representation of supported jobs and unemployment. This combination is suitable in terms of the objectives of state regional policy. Finally, the Q4 includes regions with an excessive representation of the unemployed and insufficient representation of the supported places. This quadrant includes regions with inadequate support (according to the objectives of state regional policy).

(6) Localisation coefficient based on the number of unemployed and settlement

$$LC(u)_{i,j} = \sum_{1}^{j} positive \ (SP_{i,j} - P(u)_{ij}) \,,$$

where $P(u)_{i,j}$ is the coefficient of specialisation based on the number of unemployed in j-region in i-year, $SP_{i,j}$ is the coefficient of settlement in j-region in i-year.

(7) Localisation coefficient based on the number of supported jobs (5 years) and settlement.

$$LC(s)_{i,j} = \sum_{1}^{j} positive \left(SP_{i,j} - P(s)_{i,j}\right).$$

where $P(s)_{i,j}$ is the coefficient of specialisation based on the number of supported jobs (5 years) in j-region in i-year, $SP_{i,j}$ is the coefficient of settlement in the j-region in i-year.

The localisation coefficient (LC) demonstrates the (in)uniformity of the phenomenon. $LC = 0$ means completely uniform distribution, $LC = 1$ is an unrealistic extreme value of the completely non-uniform distribution.

The analysis focuses on the period from 2002 to 2020. The date of submission of the project of investment incentive is indicated as the date of creation of the investment incentive in this analysis. Data about supported jobs are monitored from 1998 to 2020.

RESULTS

The Czech government implemented extensive investment support for newly created jobs. From 1998 to 2020, 145,435 jobs were supported by an investment incentive. The biggest support was in the district Louny (7,628 jobs). The smallest was support in the district Jeseník (14 jobs).

The localisation coefficient generally indicates the uneven distribution of supported jobs and unemployed in the territory (Tab. 1). The indicator focused on the supported jobs shows significantly higher values. However, the difference between the maximum and the minimum is not significant.

Tab. 1. Localisation coefficient, 2002 to 2020, districts and NUTS III

	Localisation coefficient based on the number of unemployed and settlement			Localisation coefficient based on the number of supported jobs (5 years) and settlement		
	Min.	Max.	Average	Min.	Max.	Average
Districts	0.13	0.19	0.15	0.43	0.56	0.47
Regions NUTS III	0.11	0.16	0.14	0.22	0.35	0.28

Data source: Data derived from the Czech Statistical Office (2023a and 2023b) and CzechInvest (2023).

Fig. 1. Number of supported jobs in districts, 1998 – 2020

Data source: Data derived from the Czech Statistical Office (2023a and 2023b)
and CzechInvest (2023).

Fig. 2. Supported jobs in regions NUTS III, 1998 – 2020

Data source: Data derived from the Czech Statistical Office (2023a and 2023b)
and CzechInvest (2023).

More detailed information about the concentration is provided by a) localisation index based on the number of unemployed and settlement, $L(u)_{i,j}$ and localisation index based on the number of supported jobs (5 years) and settlement, $L(s)_{i,j}$.

The highest value of $L(s)_{i,j}$ reached the Tachov district in 2013 (16.23) and the Ustecký kraj (region NUTS III) in 2018 (3.07). The lowest value is zero. $L(u)_{i,j}$ oscillates between 0.19 and 2.52 (districts) and 0.38 and 2.39 (regions NUTS III).

The territory can be divided into four quadrants (in individual years) in line with the value of indicators $L(u)_{i,j}$ and $L(s)_{i,j}$ ($L(u)_{i,j}$ – horizontal axis and $L(s)_{i,j}$ – vertical axis).

Fig. 3. Distribution of regions NUTS III in quandrants, 2002 to 2020, $L(u)_{i,j} > 1$, $L(s)_{i,j} > 1$ (Q1); $L(u)_{i,j} < 1$, $L(s)_{i,j} > 1$ (Q2); $L(u)_{i,j} < 1$, $L(s)_{i,j} < 1$ (Q3); $L(u)_{i,j} > 1$, $L(s)_{i,j} < 1$ (Q4)

Data source: Data derived from the Czech Statistical Office (2023a and 2023b) and CzechInvest (2023).

Q1 represents the optimal variant (high values of $L(u)_{i,j}$ and $L(s)_{i,j}$). This category includes only 2.16 units in an average of 14 NUTS III regions. The maximum is 5 (year, 2012). Q2 represent a region with a high value of $L(s)_{i,j}$ (support) and low value of $L(u)_{i,j}$ (unemployed), i.e. regions unsuitable for state support. This category includes 3.47 NUTS III units on average. Q3 are regions with low values of $L(u)_{i,j}$ and $L(s)_{i,j}$. This group includes 4.47 NUTS III regions on average. Q4 are regions with a high value $L(u)_{i,j}$ and low $L(s)_{i,j}$, i.e. regions where support is missing. The number of units in Q4 is an average of 3.89. The ratio of units Q1 and Q2 is shown in Figure 2. In most years, it reaches higher Q2 values.

Q1 consists of only 13.32 districts on average (totally, 77) in individual years. The maximum is 19 (2008). Q2 (regions with high value of $L(s)_{i,j}$) and low value of $L(u)_{i,j}$) form, on average, only 13.79 districts. The maximum value is 19 (2015), and the minimum is 6 (year 2009). The number of districts in the Q3 group reaches

an average value of 26.68. Q4 (districts where support is missing) has an average of 23.21 districts.

Fig. 4. Ratio of quadrants Q1 and Q2, 2002 to 2020, regions NUTS III
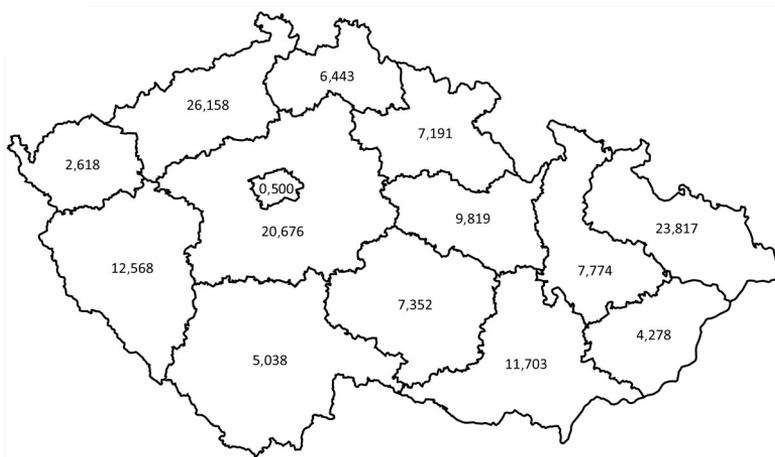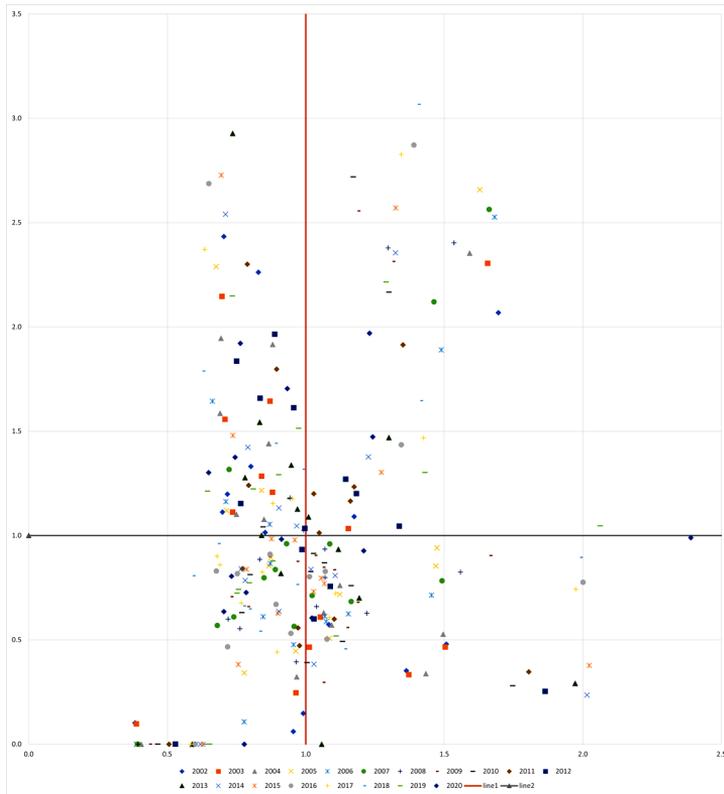
Data source: Data derived from the Czech Statistical Office (2023a and 2023b) and CzechInvest (2023).

Fig. 5. Distribution of districts in quandrants, 2002 to 2020, $L(u)_{i,j} > 1$, $L(s)_{i,j} > 1$ (Q1); $L(u)_{i,j} < 1$, $L(s)_{i,j} > 1$ (Q2); $L(u)_{i,j} < 1$, $L(s)_{i,j} < 1$ (Q3); $L(u)_{i,j} > 1$, $L(s)_{i,j} < 1$ (Q4), without extreme values

Data source: Data derived from the Czech Statistical Office (2023a and 2023b) and CzechInvest (2023).

The number of districts in Q1 reaches a higher value than the number of districts in Q2 in 2005, 2008, 2009, 2010, 2011, 2013, 2012 and 2007. The number of districts in Q2 is higher than the number of districts in 10 years.
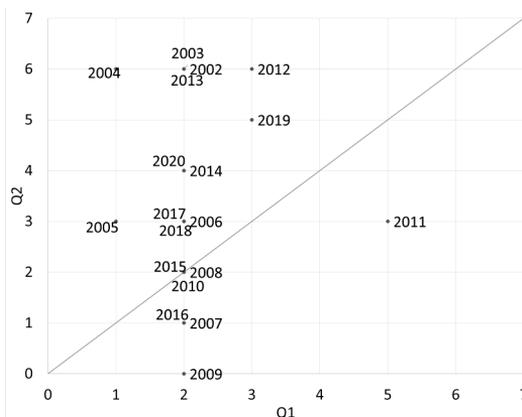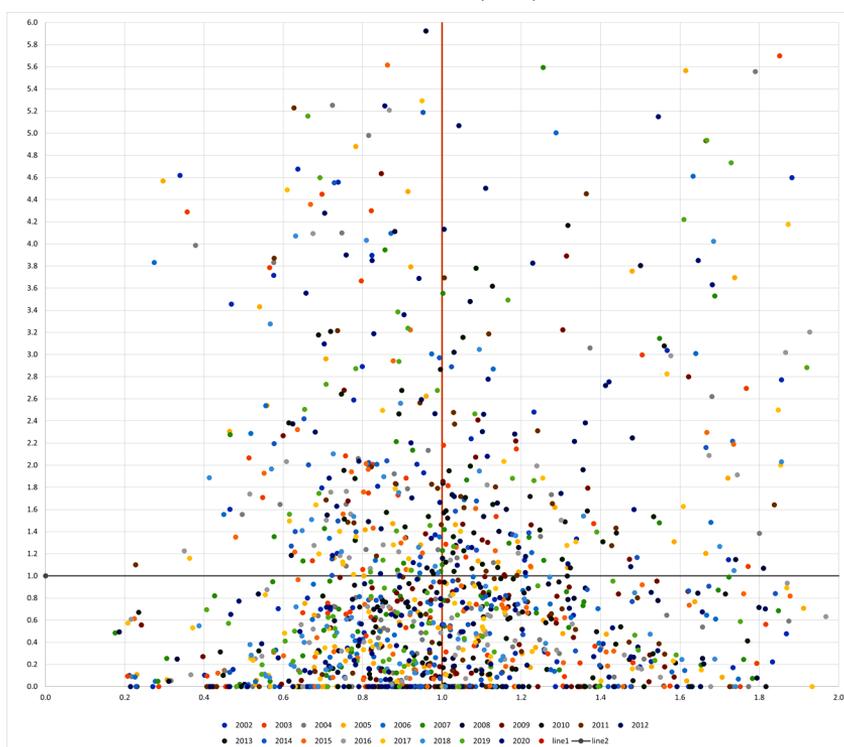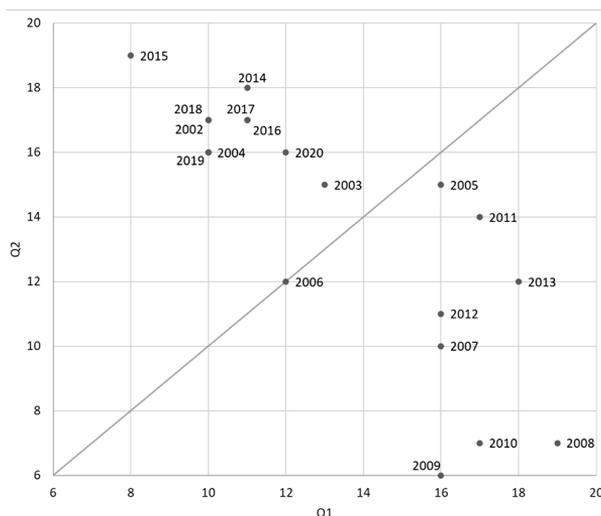

Fig. 6. Ratio of quadrants Q1 and Q2, 2002 to 2020, districts
Data source: Data derived from the Czech Statistical Office (2023a and 2023b)
and CzechInvest (2023).

Regions can be divided into five basic groups (types) according to the value of $L(u)_{i,j}$ and $L(s)_{i,j}$. T1 – regions where support is well targeted and implemented, T2 – regions with inappropriately targeted support, T3 – regions that are not eligible for support and support is also under-average, T4 – regions lacking support, T5 – regions which cannot be unambiguously classified (their position is changing in time).

T1 form districts Louny, Chomutov, Most, Teplice, Ústi and Labem, Liberec, Plzeň-město, Ostrava-město and Brno-město. The restructuring of the economy in these spatial units has not often been completed and social endangered groups of the population are located there.

T2 is relatively heterogeneous. This category includes (a) the economic poles of the Czech Republic, i.e. districts Mladá Boleslav, Rychnov nad Kněžnou (both with the location of the Škoda Auto company), Pardubice, and Jihlava, (b) peripheral regions, are also in this category as districts Domažlice and Prachatice. The nearness of the economic centre is crucial for the good economic level of districts, Náchod (linked to Rychnov and Kněžnou), Beroun (on the development axis Praha – Plzeň) and Pelhřimov (on the development axis Praha – Brno). Significant investments of the processing industry were supported in these districts despite the low number of unemployed.

Category T3 consists of diverse spatial units with good economic conditions without major economic or social problems. They are primarily located in central part of Czechia, in the districts Praha (public support is not allowed here), Jindřichův Hradec, Písek, Strakonice, Tábor, Blansko, Brno-venkov, Vyškov, Hradec

Králové, Jičín, České Budějovice, Jablonec nad Nisou, Chrudim, Ústí nad Orlici, Plzeň-jih, Plzeň-sever, Rokycany, Benešov, Mělník, Praha-východ, Praha-západ, Havlíčkův Brod, Žďár nad Sázavou, Uherské Hradiště and Zlín.

Fig. 7. Division of districts into groups T1, T2, T3, T4, T5 (2002 – 2020)
Data source: Data derived from the Czech Statistical Office (2023a and 2023b)
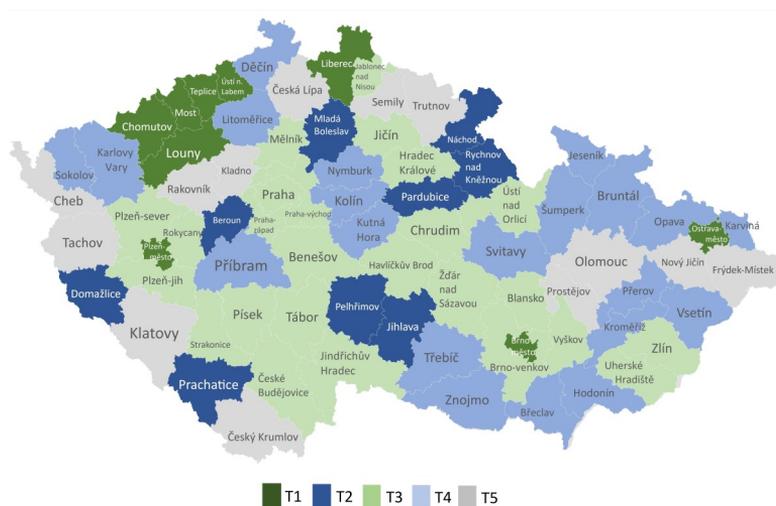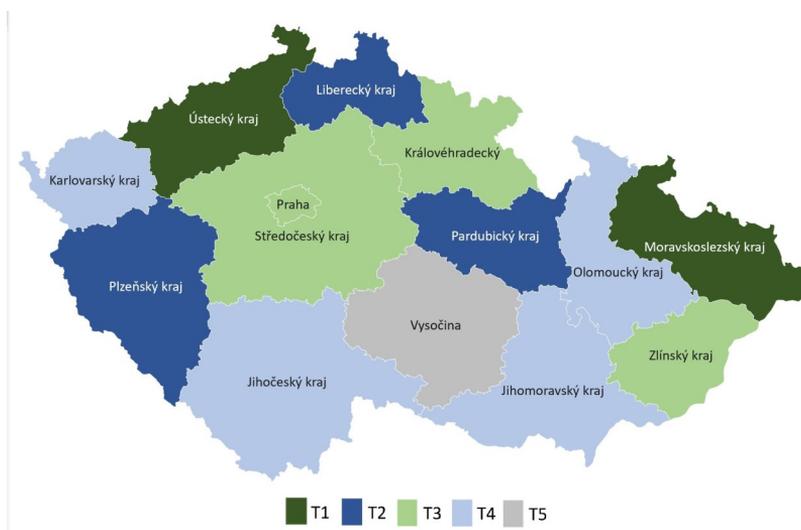and CzechInvest (2023).

Fig. 8. Division of regions NUTS III into groups T1, T2, T3, T4, T5 (2002 – 2020)
Data source: Data derived from the Czech Statistical Office (2023a and 2023b)
and CzechInvest (2023).

Spatial units in T4 can be divided into (a) areas without completed economic restructuralisation; with social problems (social exclusion, deteriorating skills

structure), such as districts like Sokolov, Přerov, Děčín, Příbram, Karlovy Vary, Karvina, (b) the post-agricultural areas, including the districts of Břeclav, Hodonín, Znojmo, Kroměříž and (c) the peripheral areas, which are the districts of Bruntál, Opava, Jeseník, Šumperk and Vsetín. On the other hand, there are no significant economic or social problems in districts like Svitavy, Kolín, Kutná Hora, Nymburk, Litoměřice, and Třebíč and the share of the unemployed is only slightly increased here.

Development of the districts Česky Krumlov, Cheb, Trutnov, Česká Lípa, Semily, Frýdek-Místek, Nový Jičín, Olomouc, Prostějov, Kladno, Tachov, Rakovník is changing in time, and a significant classification is not possible.

The support of jobs is correctly targeted to the Moravskoslezký kraj and the Ustecký kraj. On the contrary, support for creating new jobs is missing in Karlovarský kraj, Jihočeský kraj, Jihomoravský kraj and Olomoucký kraj. Public support is realized in Plzeňský kraj, Pardubický kraj and Liberecký kraj. There are traditional industrial centres in these regions. Low support is realized in Praha, Stredočeský kraj, Kralovehradecký kraj and Zlínský kraj. Development of the Kraj Vysočina can not be classified in an unambiguous way.

Eliminating some districts (closer to the statistical average) provides another perspective on the correct territorial targeting of job support in the system of investment incentives (for data, see Tab. 2). Only districts in interval $0.75 < L(u)_{i,j} > 1.25$ and $0.75 < L(s)_{i,j} > 1.25$ are included.

Tab. 2. Division of districts into groups T1, T2, T3, T4, T5, $0.75 < L(u)_{i,j} > 1.25$ and $0.75 < L(s)_{i,j} > 1.25$

	T1	T2	T3	T4	T5
2002	6	7	13	13	38
2003	6	5	11	13	42
2004	7	6	11	12	41
2005	8	5	11	8	45
2006	7	5	13	11	41
2007	7	3	13	8	46
2008	6	2	10	6	53
2009	6	1	7	9	54
2010	7	2	6	8	54
2011	7	4	6	10	50
2012	5	4	6	10	52
2013	4	4	7	11	51
2014	3	7	6	6	55
2015	4	4	9	8	52
2016	7	6	9	9	46
2017	9	4	12	6	46
2018	6	6	17	6	42
2019	5	6	15	7	44
2020	5	4	11	8	49
Average	6.05	4.47	10.16	8.89	47.42

Data source: Data derived from the Czech Statistical Office (2023a and 2023b) and CzechInvest (2023).

The number of districts in T1 oscillates between 3 and 9 with an average value of 6.05. The districts include Ostrava-město, Plzeň-město, Chomutov, Louny, Most, and Ústí nad Labem with the characteristics of T1 in 10 or more years. Ostrava-město, Chomutov, Louny, Most and Ústí nad Labem are industrial regions without a conclusion of restructuralization and long-term social problems. The position of the district Plzeň-město can be surprisingly very attractive for foreign direct investment. The size of unemployment is the result of social problems and exclusive locations.

T2 are typically key economic poles of Czechia. These are Mladá Boleslav (Škoda Auto) and Pardubice (Foxconn's investment following the tradition of Tesla Pardubice). The FDI project in the processing industry possibly explains the surprising position of the district of Pelhřimov.

The districts in T3 are Praha with suburban districts Praha-východ, Praha-západ, Benešov and České Budějovice (regional centre). The position of Plzeň-jih comes from attractive industrial zones and connectivity to Plzeň and Praha.

T4 can be characterised as districts with social problems and industrial tradition (as well as T1), for example, Děčín, Sokolov, Jeseník, Hodonín, Znojmo, Třebíč, and Přerov. Znojmo and Třebíč have the characteristics of rural and peripheral districts with a dominant single quadrant (see Fig. 7).
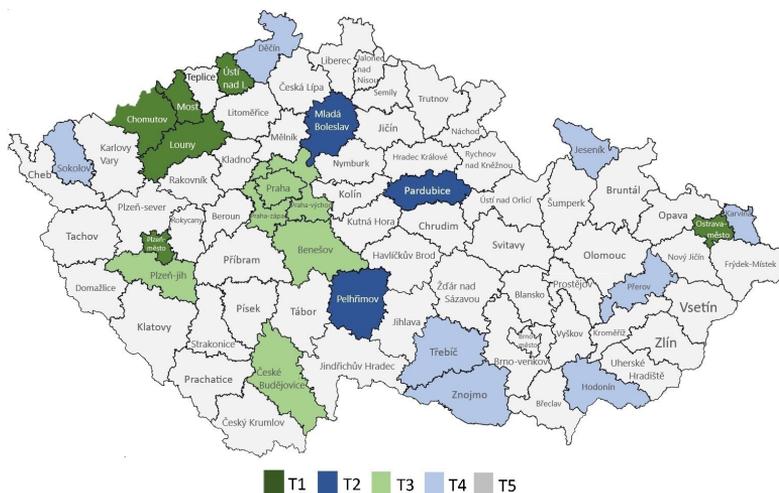
Fig. 9. Districts with one type clearly dominating

Data source: Data derived from the Czech Statistical Office (2023a and 2023b)
and CzechInvest (2023).

DISCUSSION

The paper aims to verify whether setting up the system of investment incentives in Czechia determined the over-proportional location of supported jobs to regions with an over-proportional size of unemployed and thus meets the declared objectives of regional policy. A simple concentration analysis was used to fulfil this goal. The system of investment incentives in Czechia could not sufficiently counteract localisation factors leading to a concentration of investments in more eco-

nomically developed regions with lower unemployment. Previous findings about positively influenced of investment location have not been confirmed (Schalk and Untiedt 2000, Basile et al. 2008, Dinga 2011, Klemm and van Parys 2011, Belkhodja et al. 2017, Fabuš and Csabay 2018, Hlaváček and Janáček 2019 and Táncošová 2019).

The results affirmed studies about the ineffectiveness of investment incentives, for instance (Lim 1983, Mariotti and Piscitello 1995, Billington 1999, Fox and Murray 2004, Guagliano and Riela 2005, de Blasio et al. 2007, Bolcha and Zemplinerova 2012 and Liu et al. 2014).

The results also confirmed that more than setting the investment incentive system (with the advantage of economically lagging regions) is needed for the effective investment direction in regions with higher unemployment. Therefore, Czechia is not a positive example to be followed by governments that would like to establish an investment incentives system to support the lagging regions (with over-average unemployment). On the other hand, it also shows in the result that the share of supported jobs is more frequently realised in regions where the number of unemployed is under proportional.

CONCLUSIONS

The objective of regional policy is usually to support regions with high unemployment. Supporting the creation of new jobs is a traditional instrument to help economically affected regions. The regions according to this context can be divided into five basic types: T1 – regions where support is well targeted and implemented (regions with high unemployment and job support), T2 – regions with inappropriately targeted support (regions with low unemployment and high support), T3 – regions that are not eligible for support and support is realised on low level (low unemployment and low support), T4 – regions where support is lacking (high unemployment and low support), T5 – regions that cannot be clearly classified (their position changes significantly over time).

Districts of the Ústecký kraj dominated in T1, that is, Louny, Chomutov, Most, Teplice, Ústi and Labem. The rest of this group are regions of Liberec, Plzeň-město, Ostrava-mesto and Brno-město. The restructuring processes of the economy in these regions have not often been completed, and socially endangered groups of the population are located here. T2 is relatively heterogeneous. Districts in this group are typically high-economic performance areas based on the existing powered industrial companies, for example, Mladá Boleslav, Rychnov nad Kněžnou (Škoda Auto), Pardubice (Foxconn), Jihlava (Bosch) and the districts linked to economic poles (Domažlice, Prachatice, Náchod, Beroun and Pelhřimov). Support for new jobs in these regions is not very regional in the context of reducing unemployment. Finally, there are districts with good economic power without significant economic or social problems mostly located in the central part of Czechia in T3 (Praha, Jindřichův Hradec, Písek, Strakonice, Tábor, Blansko, Brno-venkov, Vyškov, Hradec Králové, Jičín, České Budějovice, Jablonec nad Nisou, Chrudim, Ústí nad Orlici, Plzeň-jih, Plzeň-sever, Rokycany, Benešov, Mělník, Praha-východ, Praha-západ, Havlíčkův Brod, Žďár nad Sázavou, Uherské Hradiště and Zlín). Districts in T4 are typically regions without completed economic restrukturalization (Sokolov, Přerov, Děčín, Příbram, Karlovy Vary and Karviná), post-agricultural regions (Břeclav, Hodonín, Znojmo and Kroměříž), peripheral regions (Bruntál,

Opava, Jeseník, Šumperk and Vsetín). The rest are districts without significant economic or social problems (Svitavy, Kolín, Kutná Hora, Nymburk, Litoměřice and Třebič). Deve-lopment of the districts Český Krumlov, Cheb, Trutnov, Česká Lípa, Semily, Frýdek-Místek, Nový Jičín, Olomouc, Prostějov, Kladno, Tachov, Kladno, Rakovník is changing in time, and the significant classification is not possible. The evaluation of the situation and development on the territorial level NUTS III regions proves to be problematic. Analysis at the district level shows considerable internal differences in the NUTS III regions.

The analysis confirmed that the setting of the investment incentive system in Czechia could not sufficiently protect the economically lagging regions. The regionalisation of investment incentives is not on the level that determines the effective investment direction in areas with higher unemployment. The Czechia is not, in this context, a positive example. The results show that the share of supported jobs is more frequently realised in regions where the number of unemployed is under-proportional.

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Milan D a m b o r s k ý

REGIONÁLNÍ NEZAMĚSTNANOST
A INVESTIČNÍ POBÍDKY V ČESKU

Cílem příspěvku je ověřit, zda nastavení systému investičních pobídek v Česku zajišťuje nadproporcionální směřování podpořených pracovních míst do regionů s vysokou nezaměstnaností a naplňují se tak deklarované cíle regionální politiky. K naplnění cíle článku byla využita koncentrační analýza na územní úrovni okresů a krajů Česka (NUTS III).

Analýza je založena na jednoduchém měření koncentrace, které vychází z porovnání koncentrace počtu nezaměstnaných, počtu podpořených pracovních míst a počtu obyvatel ve věkové kategorii 15 – 64 let (produktivní věk). Tato koncentrační analýza se obvykle používá pro měření struktury ekonomiky. Analýza je provedena na úrovni okresů a krajů (regiony NUTS III).

Prostorové jednotky podle koncentrace nezaměstnaných a podpořených pracovních míst lze rozdělit do 5 základních typů: T1 – prostorové jednotky, kde je podpora dobře cílená a realizována (regiony s vysokou koncentrací nezaměstnaných i podporou nových pracovních místa); T2 – prostorové jednotky s nevhodně cílenou podporou (regiony s nízkou koncentrací nezaměstnaných a vysokou koncentrací podpory); T3 – prostorové jednotky, které jsou pro podporu nevhodné a podpora je realizována na nízké úrovni (regiony s nízkou koncentrací nezaměstnaných a nízkou koncentrací podpory); T4 – prostorové jednotky, kde podpora chybí (vysoká koncentrace nezaměstnaných a nízká podpora) a T5 – prostorové jednotky, které nelze jednoznačně klasifikovat (jejich pozice se v čase výrazně mění).

V kategorii T1 převažují okresy Ústeckého kraje, které se dosud nevypořádaly se strukturálními problémy vyvolanými ekonomickými změnami v době přechodu z centrálně plánovaného na tržní hospodářství (okresy Louny, Chomutov, Most, Ústí nad Labem a Teplice). Zbývající regiony jsou metropolitní oblasti, tj. Liberec, Plzeň-město, Ostrava-město a Brno-město.

Skupina prostorových jednotek T2 je relativně heterogenní. Jedná se o okresy typické vysokou ekonomickou výkonností (s přítomností silné ekonomické jednotky), tj. Mladá Boleslav, Rychnov nad Kněžnou (Škoda Auto), Pardubice (Foxconn), Jihlava (Bosch) a okresy spojené s hospodářskými póly (Domažlice, Prachatice, Náchod, Beroun a Pelhřimov).

Okresy zařazené do skupiny T3 tvoří ekonomicky silné prostorové jednotky většinou z centrální části Česka. Jedná se o Prahu, okresy Jindřichův Hradec, Písek, Strakonice, Tábor, Blansko, Brno-venkov, Vyškov, Hradec Králové, Jičín, České Budějovice, Jablonec nad Nisou, Chrudim, Ústí and Orlicí, Plzeň-jih, Plzeň-sever, Rokycany, Benešov, Mělník, Praha-východ, Praha-západ, Havlíčkův Brod, Žďár and Sázavou, Uherské Hradiště a Zlín.

Ve skupině T4 jsou typicky okresy bez dokončené ekonomické restrukturalizace (Sokolov, Přerov, Děčín, Příbram, Karlovy Vary a Karviná), bývalé zemědělské regiony

(Břeclav, Hodonín, Znojmo a Kroměříž), periferní regiony (Bruntál, Opava, Jeseník, Šumperk a Vsetín). U ostatních prostorových jednotek je problematické identifikovat nějaký signifikantní ekonomický nebo sociální problém (Svitavy, Kolín, Kutná Hora, Nymburk, Litoměřice a Třebíč).

Skupina T5 je tvořena prostorovými jednotkami, kde je vývoj nejednoznačný. Jsou to okresy Český Krumlov, Cheb, Trutnov, Česká Lípa, Semily, Frýdek-Místek, Nový Jičín, Olomouc, Prostějov, Kladno, Tachov a Rakovník.

Hodnocení situace na úrovní krajů (NUTS III) se ukazuje jako problematické. Navazující analýza na úrovni okresů ukazuje značné vnitřní rozdíly.

Výsledky potvrzují, že nastavení systému investičních pobídek v Česku (se zvýhodněním ekonomicky zaostávajících regionů) nestačí pro efektivní směřování investic, resp. podpořených pracovních míst, do regionů s vyšší nezaměstnaností. Česko tak není vhodným příkladem pro následování vlád, které by chtěly založit systém investičních pobídek na podpoře zaostávajících regionů (potýkajících se s vysokou nezaměstnaností). Výsledek ukazuje, že podpora pracovních míst je častěji realizována v regionech s podproporcionálním počtem nezaměstnaných. Regionalizace investičních pobídek je tak málo účinná.