Post-crisis development of creative industries in Czech cities

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The aim of this paper is to explore changes in the spatial distribution of creative industries in Czechia with the special emphasis on city or metropolitan level. Thus, we focus on the post-crisis period 2009-2013 from a multi-scale perspective. The core of the empirical research is based on a unique data set compiled from an annual survey of Czech-based firms by the Czech Statistical Office in productive sectors in 2009 and 2013. These data cover employment and financial indicators such as production, value added and wages disaggregated to particular industries according to the NACE 2-digit classification and are available for the level of municipalities with extended competencies (micro-regions). We examine metropolitan regions (further divided into urban cores and commuting hinterlands) from the viewpoint of spatial distribution, sectoral structure and productivity of creative industries – a cross-sectional analysis for 2013 and 2009-2013 changes. We ask if and to what extent the (post)-crisis development altered the spatial and sectoral organization of creative industries in Czechia.

The structure of the text is organized as follows. The first part discusses the possible scenarios of the response of creative industries to the crisis and the factors that may affect the probability of accomplishing the discussed scenarios. Subsequently, the data and methods are described. Since we have considered the national context to be an important factor in modifying the nature and importance of the creative sectors, we pay attention to it in the introductory chapter of the empirical part of the study. The analysis of the development of creative industries in post-crisis development is structured in two main lines, i.e. sectoral and spatial. The core of the paper consists of the characteristics of changes in the distribution of the creative industries at a micro-regional level with emphasis on slow growing metropolitan regions.

Creative industries and the crisis

Before the arrival of the economic crisis in 2008, the creative industries were perceived to be one of the new drivers of economic growth in the post-Fordist modes of production and consumption, in line with Scott (2000, p. 3), who notes that ‘cultural products of all sorts constitute a constantly increasing share of the output of modern capitalism, and cultural-products sectors represent some of the most dynamic growth industries in the world at the present time.’ However, the unexpected arrival of the financial and economic crisis has raised the question of how the industries are going to respond to this situation. With respect to conceptualizing the possible impacts of the crisis on the creative industries, Pratt (2009) has identified three possible scenarios. The first scenario is based on the assumption that the growth or decline of (market-oriented) creative industries depends on demand from other industries, or from the ‘real economy’ (p. 495). The drop in real economy would therefore reflect in a reduction in private demand and a decline in the employment and production in the creative industries Similarly, austerity measures in public funds, which form, in the advanced economies, as much as 50% of GDP, reduce the demand and direct the creative industries into a ‘vicious circle of decline’ (ibid. p. 495). Besides, it cannot be omitted that the decline in demand cannot only be associated with the relationship between the creative industries and the ‘real economy’, but also to the relationship within the creative industries and within the service sector. Finally, a highly fragmented and unstable segment of the creative industries is dominated by small and micro-businesses, which are highly sensitive to any change in demand (Grodach and Seman 2013). In this scenario, the creative industries are purely demand-oriented and their ability to respond to the crisis is based on the performance of other sectors.

Data and methods

In this chapter we first introduce methodology used to define metropolitan and non-metropolitan regions in Czechia. Subsequently, we describe the group of analyzed creative industries, data sources and limits of their informational value, construction of statistical indicators and the methods used.

Metropolitan regions have been defined by the OECD publication (2008) - Redefining Urban Areas. This methodology defines metropolitan regions in Europe as a subgroup of urban regions with more than 50,000 inhabitants, while the basic structural unit is LAU2 municipalities.

The primary data source used was the Annual Economic Report of selected production sectors, published by the Czech Statistical Office (CSO 2009, 2013). Data were available for 206 micro-regions and a 2-digital NACE rev. 2.0 sectoral aggregation. The indicators include employment (full-time equivalent) and financial indicators such as production, value added, wages or tangible assets. The database does not cover all sectors of the Czech economy - the data are available for agriculture and forestry, the manufacturing industry, the construction industry and most services (NACE 49-56; 58-64; 66; 68; 69-75; 77-82). What is missing are the figures for mining and energy, public services and part of the consumer and commercial services such as retail, wholesale and the repair of motor vehicles. Total employment in the administrative districts of municipalities with extended powers in the micro-regions is calculated only for the sectors for which there were data available on a micro-regional level; it does not cover the entire spectrum of economic activities. The shares of creative sectors in the regional employment rate must therefore be understood as shares in employment in the above sectors, not as shares of total employment.

We analyzed a group of market-oriented creative industries in a stricter definition:

- Printing and reproduction of recorded media (NACE 18)
- Publishing activities (NACE 58)
- Motion picture, video and television programme production (NACE 59)
- Programme and broadcasting activities (60)
- Architectural and engineering activities, technical testing and analyses (NACE 71)
- Advertising and market research (NACE 73)
- Other professional, scientific and technical activities (NACE 74)

Classical creative industries with a symbolic knowledge base prevail in this group (NACE 58, 59, 60, 73). A problematic result of the gross sectoral aggregation is the inclusion of certain service sectors, which have a prevailing synthetic knowledge base and with its character do not quite fit in the creative industries - NACE 71 (besides architecture itself) and NACE 74. The printing was also added, although it is a sector with a synthetic knowledge base, however, it belongs to the so-called semi-creative industries (Boix, 2013). Due to an intense supplier interconnection with a group of creative industries, a similar trend can be expected in the post-crisis period.

Changes in the spatial distribution of creative industries were evaluated by the Herfindahl-Hirschmann index (HHI), which was calculated from the relative shares of micro-regions in total employment of each particular creative industry. Intensity of structural changes in the group of creative industries was measured by the Finger-Kreinin Index (FKI) of structural change in employment. The index compares employment shares in particular creative industries over the period 2009-2013.

Creative industries in the context of Czechia

In the ‘varieties of capitalism’ concept (Hall and Soskice 2001) Nölke and Vliegenthart (2009) identify the third specific variety of capitalism for the countries of Central and Eastern Europe as the so-called ‘dependent market economy’. These economies have a comparative advantage in the production of relatively complex durable products, where the source of such a comparative advantage is the institutional complementarities between (a) the educated yet cheap labour, (b) the transfer of technological innovation within trans-national corporations (‘TNCs’) (c) the capital inflow through direct foreign investments (p. 679). An important role in this variety of capitalism is played by TNCs, which control the dominant part of the pro-export oriented key production sectors (automotive, mechanical engineering, electronics), based on an intensive use of the labour force. The preference of neoliberal approaches (‘embedded neoliberalism’ Bohle and Greskovits, 2007) also reinforces the position and role of TNCs. Novotný et al. (2016, p. 16) in their recent work confirm the status validity of a dependent market economy, because ‘evidence provided on productivity differentials suggest that Czech manufacturing – even though intensively integrated into the global economy – has adopted a specific and semi-peripheral position in the European economy based on the low cost of relatively well-trained labour’. Based on the above, the Czech economy can be evaluated as a semi-peripheral economy with a higher proportion of mature industries, which is driven primarily by efficiency. Such economies are characterized by a predominance of mostly large series (economies of scale) with lower value added and low design intensity (Slach et al. 2013).

Since the creative industries are attracted to growing regions, their distribution to some extent follows the trends outlined above. Empirical studies within CEECs point out a dominant concentration of creative industries in capital cities (e.g. Rehák et al. 2013). Analysis by Slach et al. (2013) identified, based on data from 2009, the following spatial patterns of the distribution of creative industries in Czechia. Creative industries in Czechia are strongly spatial concentrated, primarily in large cities. Prague, where almost 40% of all employment of all studied creative industries in Czechia is concentrated, occupies a totally dominant position. Besides, Prague is one of the cities with the highest proportion of creative industries in the labour market throughout the European Uni’n (Power 2011). These findings confirm Prague's position as a so called ‘global gamma city” (Beaverstock et al. 1999). Prague's position is documented with a low proportion of the other two largest centres - Brno and Ostrava - concentrating only 9% and 3% of all jobs in the creative industries. The order of other positions is largely determined by the size, or their vertical geographic location. The peripheral location of the regions (horizontal) also adversely affects absolute unemployment.

Aggregation at the level of metropolitan regions also confirmed a high concentration at the national level. Three metropolitan areas of European character (more than 500,000 inhabitants) concentrated together 56% of all jobs.

Furthermore, multivariate regression analysis confirmed the positive impact of size or density (expressed by the number of inhabitants) on the one hand and the negative impact of the employment in the manufacturing industry and economic specialization. These results suggest two facts. Despite the different context, urbanization economies have a positive impact on the presence of creative industries in the Czech regions combined with the sectoral sub-specializations (localization economies) as a diversified specialization. Findings also partially explain the low importance of creative industries both in old industrial regions (Ostrava and Ústí nad Labem regions) and peripheral regions. If the spatial organization of the creative industries and the principles affecting it can, to some extent, be seen as universal, the sectoral characteristic of the creative industries in the post-socialist context may appear to be far from universality. Rozentale and Lavang (2014), for example, point out that the creative industries in this space differ by a lower level of internationalization, a lower level of demand uncertainty, and generally by a lower value-added production. For the first characteristic, it is apparent that the language barrier, limiting a number of creative industries, plays an important role here. Rumpel et al. (2010) confirm the low level of internationalization and the high dependence of creative industries on regional markets.

A unique database of the Czech Statistical Office (2010) provides very interesting information about selected creative industries. In 2010, one of the largest creative sectors in Czechia was advertising. Information about wages (at a company level) shows that in Prague the average wage (38,689 CZK in the advertising sector), exceeded not only the national average (23,231 CZK), but also the regional average (30,100 CZK). In contrast, the average wage (18,800 CZK) in the advertising sector in non-metropolitan regions was significantly lower than the national average. Additionally, more than 88% of overall wages were below this threshold, while - by comparison to Prague - it was only 44.1%. Other metropolitan regions did a little better, but even there the average wage in advertising (21,371 CZK) was below the national average. Large differences were also in production per employee, which in non-metropolitan regions reached 51% and in other metropolitan regions was even as low as 40.3% of the production per employee in Prague. So it seems that the advertising sector creates, especially in non-metropolitan regions, poorly paid jobs with low productivity. And therefore the question is how the creative industries in Czechia were responding in the aftermath of the crisis.

Preliminary conclusions

This paper aims to evaluate the development of creative industries in the post-crisis period between 2009-2013. These industries underwent a number of changes in the observed period. Firstly, at the sectoral level, both employment in the monitored creative industries and their share in value added and employment were declining. The sectors most affected by the crisis included the motion picture and TV industries, as well as most symbolically oriented industries. Simultaneously, the job growth in NACE 71 and 74 was noticed, however, it is necessary to view these results, due to their 2-digital classification, with a certain degree of caution. Particularly in the case of NACE 71, it can be justifiably assumed that the growth was primarily driven by technical expertise and less so by architecture, because employment grew in the industry in general but not in the construction industry.

Secondly, at the regional level the degree of spatial concentration of employment and value added increased in favour of Prague, which was, however, primarily due to the significant decrease of the observed values in other metropolitan regions. The core and hinterland of metropolitan regions, rather than the non-metropolitan regions, surprisingly became the main losers in the post-crisis development of the creative industries. On the other hand, the decrease in these regions was made up for by an increase in high-tech manufacturing.

Thirdly, at the micro-regional level we register a de-concentration trend of the creative industries in the Prague metropolitan region, but the trend is still relatively weak. Development in other micro-regions took different forms. Apparently, the most obvious trend was the close interconnection between regional economic growth, due to increased specialization, and the increase or only moderate stagnation of the creative industries. It has turned out that the creative industries in Czechia are highly regionalised. Furthermore, micro-regions with a high degree of specialization in mature industries (printing) reached an above-average rate of employment growth in the creative industries. Finally, in the structurally affected regions, which already have a low proportion of creative industries, the decline in employment and value added reached above-average values.

Fourth, when compared with the scenarios presented by Pratt (2009), we may conclude that, in the context of Czechia, we have noted a predominantly ‘dependent scenario,’ because the development of creative industries was copying or even ‘overtaking’ the development of the economy as a whole in the monitored period. The sectoral trajectory of NACE 74 seems to be a partial manifestation of the second scenario, which most likely absorbed some jobs that were lost in other creative industries, especially at the core of the Prague metropolitan region. However, there is a need for closer examination of the nature and type of these new jobs. There is virtually no empirical proof for the third scenario.

All in all, the obtained results suggest that to understand the nature, development, role and importance of the creative industries it is essential to consistently integrate the context in which these creative industries operate (see Comunian et al. 2014). An analysis of the development of creative industries in the post-crisis period indicates that the expectations outlined in the Introduction are really rather wishful thinking than a reflection of social reality. For the implementation of the first policies emerging in the creative industries in the Czechia (see Marková 2014), to ignore their specific nature could be a mistake.