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THE IMPACT OF THE ECONOMIC CRISIS ON THE METROPOLISATION PROCESS IN THE CAPITAL CITIES OF THE CEE COUNTRIES¹

Abstract: The aim of this paper is to discuss the situation of the EU-10 CEE capital cities during the years since the 2008 financial crisis. The paper concentrates on metropolisation processes that became particularly pronounced at the end of the first stage of the transformation, long before the accession of these countries to the European Union. The main hypothesis is that these processes also continued in the conditions of the economic crisis. As a result, the capital cities in most CEE countries should have done relatively well coming out of the crisis, mainly due to the nature of their diversified economies and the significant share of advanced business services in their structure. As a result, the crisis provided an opportunity to ‘verify’ the viability of the current economic model in the short term, in the specific conditions of transformation economies.

Keywords: CEE countries, metropolisation, economic crisis, capital city.

WPLYW KRYZYSU GOSPODARCZEGO NA PROCES METROPOLIZACJI W MIASTACH STOŁECZNYCH KRAJÓW EUROPY ŚRODKOWO-WSCHODNIEJ

Streszczenie: Celem artykułu jest przedstawienie sytuacji 10 miast stołecznych krajów Europy Środkowo-Wschodniej w okresie następującym po kryzysie finansowym z 2008 r. Artykuł koncentruje się na procesach metropolizacji, które stały się szczególnie widoczne w pierwszej fazie transformacji, na długo przed przystąpieniem tych krajów do Unii Europejskiej. Przyjęta hipoteza zakłada, że te procesy postępują również w warunkach kryzysu gospodarczego. W rezultacie należy oczekiwać, że sytuacja miast stołecznych krajów Europy Środkowo-Wschodniej powinna być dobra z uwagi na zdwersyfikowaną strukturę gospodarczą i duży udział zaawansowanych usług dla przedsiębiorstw. W efekcie kryzys stworzył możliwość weryfikacji odporności aktualnego modelu rozwoju gospodarczego w krótkim okresie w specyficznych warunkach transformujących się gospodarek.

Słowa kluczowe: kraje Europy Środkowo-Wschodniej, metropolizacja, kryzys gospodarczy, miasto stołeczne.

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Introduction

Contemporary metropolisation processes taking place on different spatial scales are the main factor shaping the economy and space of large cities, particularly in well-developed countries (Castells, 1989, 1998). In an information economy, the development of metropolises is based on three mutually supplementary pillars (Sassen, 2001; Hall and Pain, 2006; Krätke 2007). The first is related to transnational corporations, including companies providing advanced business services. The second is associated with hi-tech and creative industries. For instance, T. Hutton (2010) draws attention to contemporary, specific reindustrialisation processes in the central areas of metropolises. The third pillar encapsulates cultural and trade functions, including their role in the development of the tourism sector (Wrigley and Lowe, 2002; Degen and Garcia, 2012). At the same time, it is possible to observe the spatial dimension of the growing polycentricity of existing spatial structures (cf. e.g. Batten, 1995; Kunzmann, 1998; Criekinging et al., 2007), with centrality becoming increasingly fuzzy in the metropolitan space (Soja, 2000).

To sum up, the observable metropolisation processes are associated with (cf. Smętkowski and Gorzelak, 2008):

- transition from a traditional industrial economy, with capital and labour as its main production factors, to an information and service-based economy in which innovation is the main factor of development;
- segmentation of the global economy, where the competitive advantage in the high-technology segment is based on the capacity to create and adapt innovations, whilst the low-technology segment is governed by the price competition. The former segment is usually located in metropolitan areas, while the latter – in non-metropolitan areas;
- changes in the spatial linkages within the economy, which involve the development of a network of global cities that attract firms providing advanced business services, headquarters of the largest international corporations and research-intensive industries that organise global information flows.

In recent years, the changes taking place in the service sector have had a crucial impact on the economies of the metropolitan centres in highly-developed countries, and the most important changes took place over approximately 10-year periods, starting in 1970 (cf. Hutton, 2010). The first of these periods, which began in the 1970s, involved the externalisation of services from industrial enterprises, a process that fostered the development of business services and led to the cities becoming specialised, national or regional, service centres. The second phase, associated with the increasing internationalisation of the service sector, began in the 1980s and was characterised by a growth of intermediation services such as banking and finance, but also of other advanced business services, coupled with their increasing specialisation in control and management functions. Over this period, metropolises became the main hubs for international exchange and investments. The current phase, which started after 1990, can be described as the globalisation phase, due to the rapid growth of information and communication technologies (ICT), accompanied by an expansion of knowledge-based business

services and tougher competition between metropolises for control over the flows of capital, technologies, and information.

In Central and Eastern European countries (CEECs), locked in the fetters of the old industrial development paradigm until 1989, it could be expected that the scale of metropolisation processes associated with the transition to a free market economy and becoming a part of globalisation flows would be much more spontaneous than in Western European countries. Furthermore, it should be assumed that these waves of changes in the service sector typical of metropolises in highly-developed countries would overlap with each other. This is corroborated by many empirical studies that clearly show that large cities, especially those incorporating capital cities, became the leaders of the transformation process (Gorzelać, 1996; Petrakos, 2001; Smętkowski and Wójcik, 2012). This was a consequence of the fact that capital city regions had the best transport accessibility, as well as their capital city functions and the human capital with the best qualifications, a key factor in the development of a knowledge-based economy. In effect, this led to a huge inflow of capital from abroad, with investments *inter alia* in the sector of advanced business services, which in turn resulted in a boom in the market for office and retail space, boosted the numbers of university students, increased air travel, and produced considerable structural changes triggered by deindustrialisation processes (cf. e.g. Kuć-Czajkowska, 2010; Gorzelać and Smętkowski, 2011).

The global economic crisis originating in a crisis in the financial sector could have exerted a strong impact on metropolisation processes in the CEECs. However, the regional dimension of the crisis phenomena has not yet been discussed in depth, due to the lack of relevant statistical data. Preliminary analyses based on the changes taking place in the labour markets (cf. Gorzelać, 2011) led to a hypothesis stating that the regions the least affected by the crisis should include metropolitan regions with the most diversified economic structure on the one hand, and on the other – agricultural regions with the least presence in globalisation processes. In consequence, the remaining regions should be most heavily exposed to the crisis phenomena, especially those with the most attributes of the former, ‘Fordist’ model of economic development.

The main aim of this paper is to present the situation in ten capital cities of CEE countries that are members of the European Union over the last three post-crisis years, i.e. 2008–2011. The paper concentrates on metropolisation processes that became particularly pronounced at the end of the first stage of the transformation, long before the accession of these countries to the European Union. The main hypothesis is that these processes also continued in the conditions of the economic crisis. As a result, the capital cities in most of the CEECs should have done relatively well coming out of the crisis, mainly due to the nature of their diversified economies and the significant share of advanced business services in their structure. As a result, the crisis provided an opportunity to ‘verify’ the viability of the current economic model in the short term, in the specific conditions of transformation economies.

The paper has the following structure: the first part discusses the national (domestic) dimension of the economic crisis and the development trajectories of the capital city regions in 1995–2011. The second part identifies the factors that underpinned the metropolisation processes in the CEECs. The third and final part demonstrates how the capital city regions of the CEECs were affected by the recent economic crisis, with an emphasis on the dynamics of their economic growth compared to their respective national economies, the direction of structural changes taking place over this period, and the changing relationships between the metropolises and their regions. In addition, based on two selected case studies of metropolitan centres, Warsaw and Riga, the developments taking place in the labour and office property markets during the economic slowdown/crisis are discussed.

1. Economic crisis in the CEECs and capital cities

The financial crisis, the onset of which was symbolically epitomised by the collapse of Lehman Brothers, a US investment bank, on 15 September 2008, quickly turned into a global economic recession. The main channels through which the global crisis was imported into the CEECs included (Orłowski, 2010) the collapse of exports to Western European countries due to shrinking consumer demand, reduced scale of FDIs globally, and financial instability caused by dependency on external sources of financing that were crippled due to declining confidence in emerging markets. In parallel, G. Gorzelak (2011) divided the factors underpinning the crisis into two categories: external, which include decreasing exports, reduced activity of foreign banks, drop in FDIs, and outflow of capital; and internal, embracing high specialisation levels of the national economies, housing bubble, excessive salary rises, overvalued national currencies, high public deficit levels, and weak institutions.

The scale of the economic crisis differed across the CEECs (Figure 1). In 2009, the crisis was the most acutely felt in the Baltic states, leading to a real GDP drop by a staggering 15%, a figure unheard of even in the first stage of the economic transformation. In the remaining countries, the recession oscillated between 5% and 8%, with the exception of Poland, which recorded a 1.7% rise in GDP. A comparison of the GDP level in 2008 with that at the end of 2013 showed that Poland had an aggregate economic growth of 14.3%. In this period, Slovakia and Estonia were the countries whose economies had bounced back (a 5.0% and a 3.0% increase, respectively). Changes in the GDP of another four countries approximated the EU average, which meant a slight decrease of ca. 2%. However, Hungary, Latvia (a 5–6% decrease) and Slovenia (a 9.4% decrease) had not rebounded, even though two of these countries were the first to enter the recession phase. In addition, post 2010, only five countries clearly recovered growth; these were Poland, Slovakia and the Baltic states, whilst growth in the case of Romania and Bulgaria was much lower than in the former group. At the same time, the economies of Slovenia, the Czech Republic, and Hungary were still stagnating, and even recorded a small drop in GDP in 2012–2013.

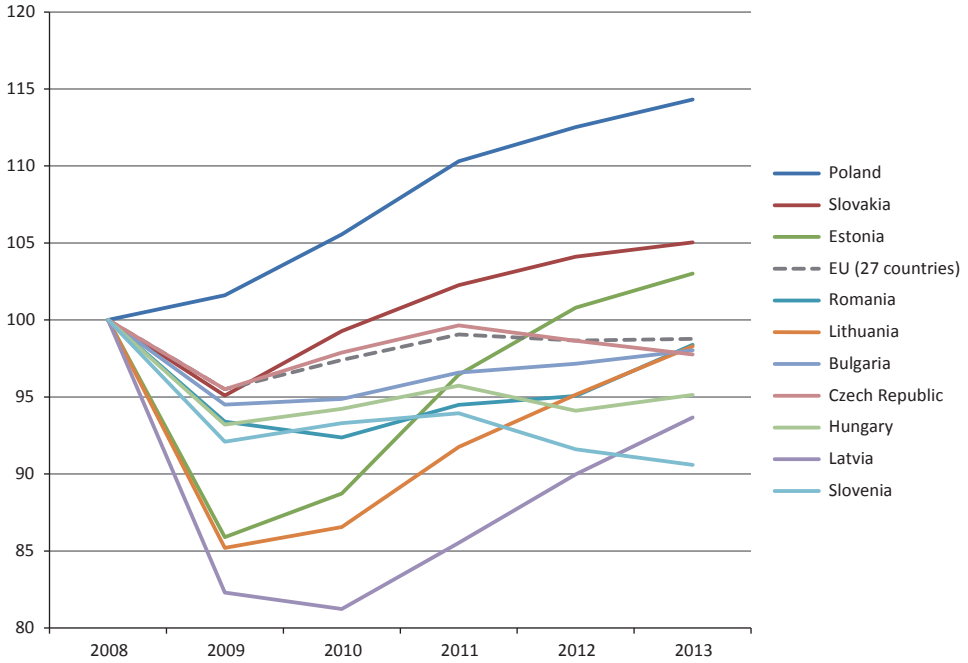


Figure 1. Real GDP changes in CEECs in 2008–2013 (2008 = 100)

Source: own elaboration based on Eurostat data.

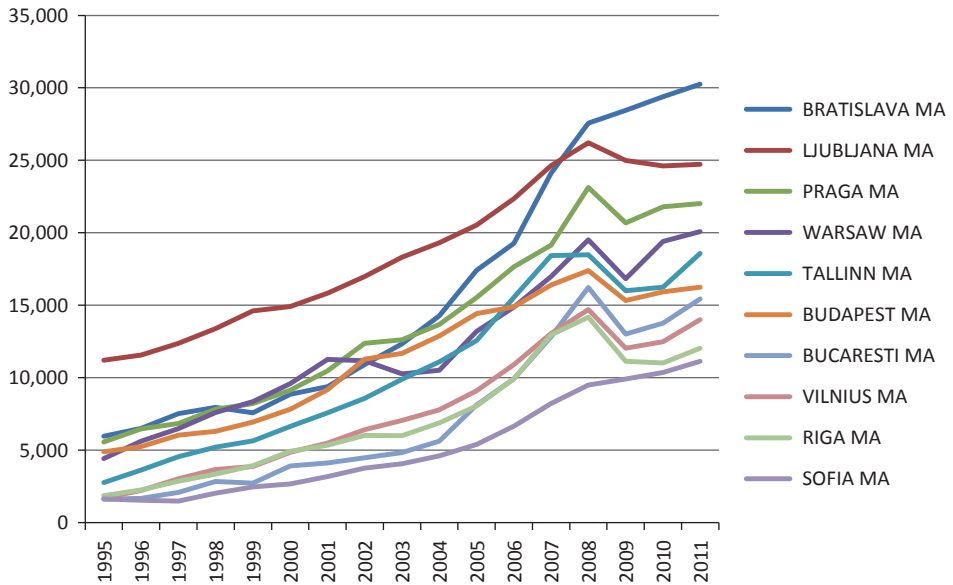


Figure 2. Dynamics of economic development of the capital city regions (GDP *per capita* in EUR)

* MA – metropolitan area

Source: own elaboration based on Eurostat data.

In nominal values measured by GDP per capita in EUR, the capital city regions (which, for the purposes of this study, are defined as the capital cities together with the surrounding NUTS3 subregions) in the CEECs were developing rapidly until 2008. In this period, the situation deteriorated only in Sofia as a result of foreign currency fluctuations (in 1996–1997), and in Warsaw (in 2002–2004) (Figure 2). In contrast, the most dissimilar paths of growth characterised Bratislava and Tallinn, the success of which could be explained by the advantages created by their location in the proximity of Vienna and Helsinki, respectively. On the other hand, and especially in the years 2004–2008, the regions of Sofia and Ljubljana, the capitals of the poorest and the wealthiest countries of the macroregion, were developing at a visibly slower rate.

As a result of the crisis, the situation of the Bratislava capital region improved significantly, with it being ranked first among the CEE countries (EUR 30,000 per capita), a likely consequence of Slovakia's accession to the eurozone in 2009. Other than that, the figures for GDP measured in EUR did not decrease only in the Sofia MA (metropolitan area), as a result of which it had again recorded a GDP per capita growth similar to that of the Riga, Vilnius, and Bucharest MAs. The latter, following the deep recession of 2009, began to improve their situation starting in 2011, similarly to Warsaw and Tallinn, which had recovered from the 2009 level. In contrast to this trend, the position of Ljubljana, Prague, and Budapest began to deteriorate steadily, which could be viewed as a consequence of poor dynamics of growth nationally, discussed above.

2. Drivers of metropolisation processes in CEECs before the crisis

Position of the CEECs' capital city regions in advanced producer services rankings

In general, metropolises in the CEECs occupy quite distant places in various global city rankings. For instance, on the basis of the GaWC (Global and World Cities) study (Taylor, 2007), it can be concluded that, of a pool of 315 surveyed global cities, only Prague, Warsaw, and Budapest were ranked among the top 50 cities in terms of the connectivity of global service firms, at a level of ca. 40% of London's potential in that regard, whilst the respective values in the case of Bucharest, Bratislava, and Sofia were between 20% and 25%, and for the capital cities of the Baltic states and Slovenia – only 15%. (Table 1). However, this situation gradually changed in the following years. In 2011, based on another analysis examining the branch structure of 350 transnational corporations providing advanced business services (CBRE, 2011), it could be seen that the cities in question visibly went up in the ranking (although compared to a smaller number of cities). For the three cities with top positions in the ranking, i.e. Warsaw, Budapest, and Prague, this could be observed particularly well in the case of the former two cities. In the next group of cities, the change of rank was even more pronounced, particularly in the case of Bucharest and Bratislava, and to a lesser extent – Sofia. On the other hand, the remaining CEECs' capital cities

continued to be scored at the very bottom of the ranking, probably due to the small size of their national economies.

Table 1. Rank of CEECs' capital cities based on the location of headquarters and subsidiaries of largest advanced producer services (APS) companies

City	CB Richard Ellis (2011)		GAWC (P. Taylor) (2000)	
	Rank (197 cities)	Number of global APS companies (max. 350)	Rank (315 cities)	Connectivity index for 100 global APS companies (max. 1.00 London)
Warsaw	12	150	39	0.42
Budapest	20	128	45	0.41
Prague	21	126	29	0.43
Bucharest	29	110	83	0.25
Bratislava	35	93	113	0.21
Sofia	53	80	121	0.20
Riga	76	59	154	0.16
Vilnius	86	51	179	0.14
Tallinn	89	49	176	0.14
Ljubljana	93	45	185	0.14

Source: prepared by the author on the basis of data from: CBRE, 2011; Taylor, 2000.

It should be noted, however, that a high place in any of the above rankings does not mean that these metropolises serve any significant control or management functions in the global economy but rather that they:

- provide convenient locations for branch offices of global service companies (with a significant role of international airports), which offer services mostly to local/domestic enterprises;
- employ a well-qualified and cheap workforce, largely performing ancillary functions in relation to those performed by the head offices of such companies;
- some of the branch offices may be small in size when compared to the scale of operations in their home countries and/or globally.

These observations are corroborated by the low position of these CEE cities in the location rankings of major transnational corporations (covering not only service firms), particularly when the location of corporate head offices is taken into account (cf. ESPON FOCI, 2010). At the same time, cities in this part of the Europe lag behind the major city centres of the EU, also in relation to the location of branch offices of such corporations.

Metropolisation and supply and demand factors

The prominent places occupied by the CEEC capital city regions in these rankings can be explained by both supply and demand factors. The former notably include ready availability of a cheap workforce with the required qualifications.

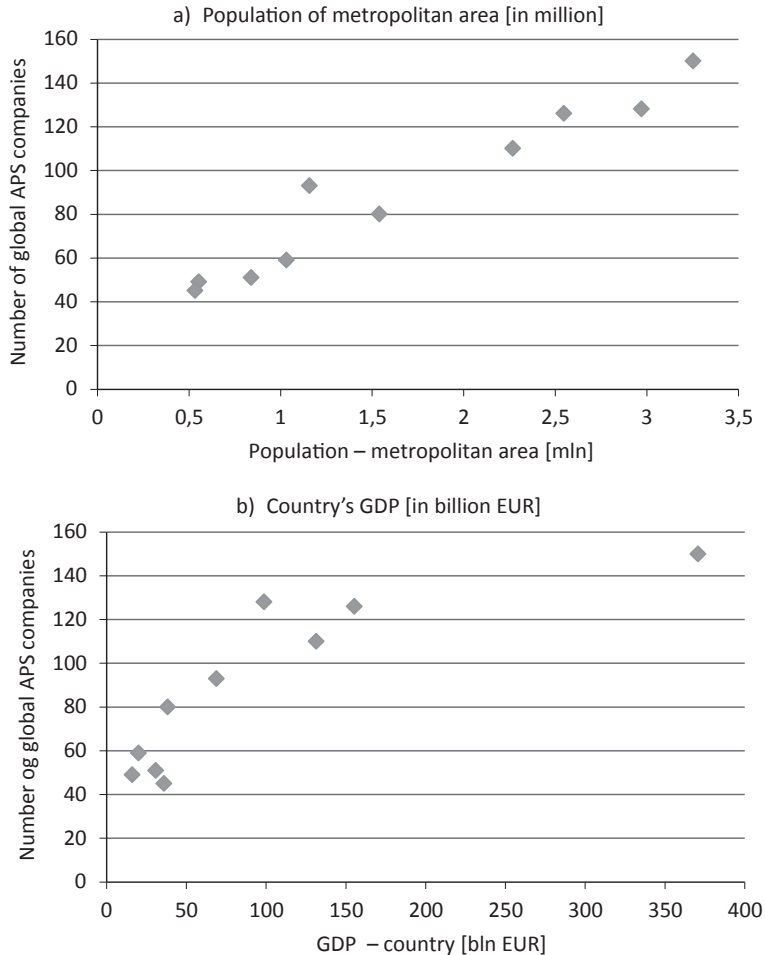


Figure 3. Advanced producer service firms location vs. supply/ demand factors on local and country levels in 2011

Source: own elaboration based on CBRE, 2011, Eurostat data.

It is quite accurately expressed by the total number of the population in the metropolitan area, which reveals a linear correlation between the size of the population and the number of subsidiaries of international corporations providing advanced business services (Figure 2a). One significant exception to this rule is the Bratislava MA, where demand factors are also likely to play a role due to its close proximity to Vienna. This hypothesis is corroborated by the region's high scores in the attractiveness ranking of European MAs for business activity in terms of costs of labour. In 2011, Bucharest, Bratislava, and Warsaw occupied the top three places in this ranking, while Budapest and Prague were ranked 6th and 7th, respectively (Cushman and Wakefield, 2012). On the other hand, the demand-side correlation between the number of subsidiaries/branches and the size of the national economy that could generate demand for the provided advanced services

is curvilinear (Figure 2b). This could demonstrate that, in bigger countries with a more polycentric structure of the settlement system (notably such as Poland), other cities can also offer attractive locations for advanced services providers. On the other hand, it should be borne in mind that some of these services may be exported. Nevertheless, the low scores awarded to metropolitan areas in investment attractiveness surveys suggest that the scale of operations reaches only slightly beyond national borders. In this approach, Warsaw was ranked 19th, whilst Prague and Budapest were at the bottom of the 33 MAs analysed (Cushman and Wakefield, 2012).

Structural changes in metropolitan areas

The considerable attractiveness of the CEECs' capital regions for transnational corporations led to far-reaching changes in their economic structures, which took place in the period of rapid growth preceding the recent economic crisis. The prevailing trend was the transition from an industrial economy to an information economy, manifested by a falling share of industry in gross value added (GVA) and an increasing share of business services (Table 2). In 2008, these services were of the greatest significance for the economy of the metropolitan area in Warsaw, reaching a level close to 30%, whereas in Vilnius and Riga their share was only 21.3% and 24.4%, respectively. In the latter regions, the sector expanded at the fastest rate, reaching ca. 6 pp in 2000–2008, compared to a mere 1.7 pp in Warsaw. The share of advanced services in the remaining metropolises oscillated at ca. 25–26%, and their significance increased at a rate ranging from 2.0 pp in Ljubljana to 4.8 pp in Prague. In this context, the situation of Budapest differed from the general picture, as the share of this sector had not undergone any major changes, while the specialisation of the regional economy in this area, measured by the location quotient (LQ), had even slightly decreased. Such specialisation was the greatest in Warsaw (1.6) and Bratislava (1.5). Among the remaining cities, Prague recorded higher-than-average values (1.4), and Tallinn and Riga – below-average values, with the degree of specialisation being very low compared to the national economy being very low, reaching ca. 1.1 in 2008.

On the other hand, deindustrialisation processes had been most advanced in Warsaw, Riga, and Sofia, where the share of GVA in industry reached a meagre 12–14%, a comparable figure to those found in the majority of metropolises in highly developed countries. At the other extreme, there was Prague (20%) and Budapest (ca. 18.5%), which had maintained their industrial traditions in their functional urban area. In contrast, the share of industry in GVA in the remaining capital city regions oscillated around 15–17%. In the analysed period, deindustrialisation processes were occurring at the fastest rate in Vilnius and Bratislava (a drop of over 4pp), whereas in the case of Prague and Budapest this sector had still maintained a major role (a slight decrease by 0.5pp), with a similar situation being observed in Sofia and Tallinn (a 1pp decrease). In the remaining cities, the role of industry had diminished by ca. 3pp. It should also be noted that deindustrialisation had taken place across the respective countries, but

Table 2. Structural changes in CEECs' capital city regions*

Capital city regions	Business services						Industry					
	Share 2000	Share 2008	Change (pp)	LQ 2000	LQ 2008	Share 2008	Share 2000	Share 2008	Change (pp)	LQ 2000	LQ 2008	
Sofia	23.6	26.3	2.7	1.22	1.32	14.1	15.3	-1.2	0.72	0.65		
Prague	20.4	25.2	4.7	1.36	1.42	20.1	20.8	-0.7	0.67	0.64		
Tallinn	22.6	25.6	3.1	1.04	1.12	15.9	17.1	-1.2	0.79	0.79		
Riga	18.1	23.4	5.2	1.10	1.12	12.9	16.2	-3.3	0.87	0.85		
Vilnius	15.4	21.3	5.8	1.21	1.34	15.7	19.9	-4.2	0.84	0.73		
Budapest	25.9	26.0	0.1	1.35	1.26	18.3	18.9	-0.6	0.70	0.72		
Warsaw	27.8	29.5	1.7	1.53	1.61	12.4	15.3	-3.0	0.67	0.51		
Ljubljana	23.1	25.1	2.0	1.16	1.20	15.3	18.2	-2.9	0.65	0.60		
Bratislava	21.3	24.7	3.4	1.28	1.51	17.6	21.7	-4.2	0.75	0.61		

* Bucharest was excluded from the analysis due to low reliability of statistical data.

Source: own elaboration based on Eurostat data

a sharp decrease in industry location quotient values suggests that this process had a greater dynamic in the capital city regions.

The following simplified typology could be proposed to summarise the situation of the CEECs’ capital city regions in terms of both the status and the dynamics of structural changes. At the one end, we have Prague and Budapest, which retained a large share of industry in the economy of their MAs, with a strong leaning towards advanced services observable in Prague. At the other extreme, there is Warsaw, and, to a lesser extent, Riga, Vilnius, and Bratislava, where advanced services have a major share in generating GVA, or where such a share is growing at the fastest rate. Sofia, Tallinn, and Ljubljana can be placed between these two extremes.

3. Impact of the crisis upon the CEECs’ metropolises

The crisis and/or economic slowdown of 2008–2011 did not considerably affect the earlier position of the CEECs’ capital city regions compared to their respective countries (Figure 4). In most of them, the dynamics of GDP growth

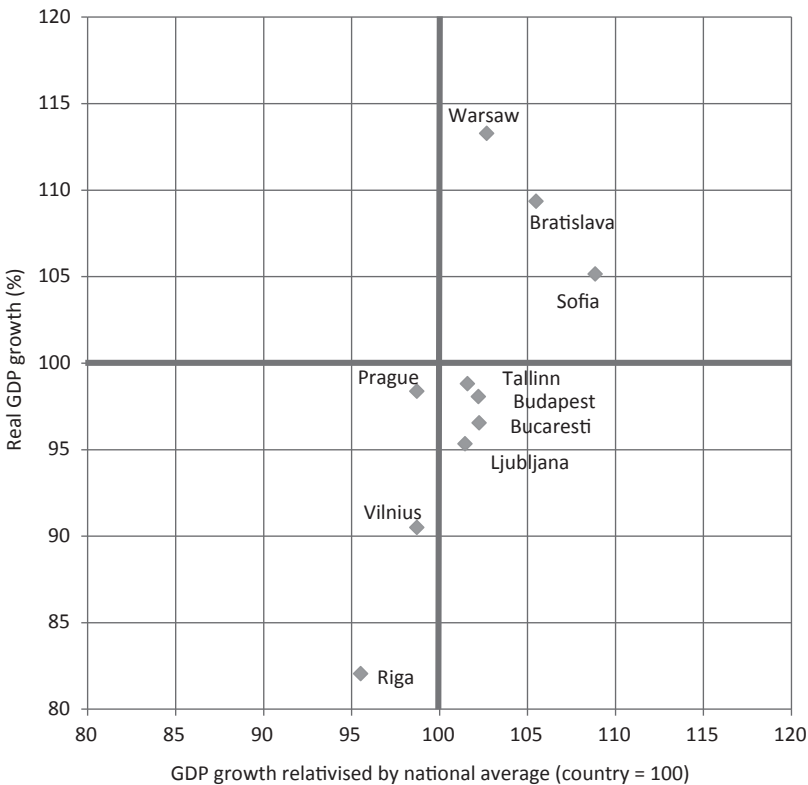


Figure 4. Performance of capital city regions* in GDP terms in 2008–2011

* Cities with their surrounding NUTS3 regions.

Source: own elaboration based on Eurostat data.

was higher than the national average, a phenomenon especially visible in Sofia, but also in Bratislava, i.e. capital cities which, in the researched period, were joining the global economy at the relatively fastest rate (the location rent due to the proximity of Vienna in the case of Bratislava, fast expansion of business services in Sofia). In the analysed period, only Prague, Vilnius and Riga were developing at a slower rate than the national average, but only insignificantly so in the former two cases. The Riga capital city region was an exception, as its position had considerably deteriorated, not only in relative, but also in real terms, as proved by an 18% GDP decrease compared to 2008. On the other hand, it should be noted that this was taking place in a situation of the greatest concentration, among all the CEECs, of economic potential in the capital city region. In the remaining countries, the capital city regions were developing more robustly than the national average, but the dynamics of this process was positive only in the Warsaw region. To sum up these changes, it could be said that the final picture was rather patchy in character, and made it impossible to offer any in-depth generalisations concerning the performance of the capital city regions in the time of the economic crisis.

More information can be derived from the structural changes taking place in the metropolitan areas, which occurred at a fast rate during the crisis and in the following years (Figure 5). First, it should be noted that, viewed in relative terms, the crisis in industry proved rather short-lived, and the share of the sector in GVA was similar to that from before the crisis as early as 2011. This could suggest that the deindustrialisation processes in the CEECs' capital city regions had come to an end. Furthermore, in some cases, such as the capital city regions of Bulgaria and the Baltic states, the role of the industrial sector had visibly increased, which can point to the huge scale of the economic collapse in other sectors. The construction sector was a branch especially badly hit by the crisis, particularly in the capital city regions of the Baltic states and Slovenia (with an exceptionally heavy drop in the case of Vilnius and Riga). This was the result of a speculative bubble in the real estate sector, which was largely financed by financial institutions from abroad. In this context, Warsaw could be viewed as an exception, as the construction boom was still strong there, a likely consequence of the fastest rate of GDP growth, relatively, in this period. A palpable regression could also be observed in the simple services sector, a phenomenon most clearly visible above all in Prague and Bratislava. This could be an effect of dwindling consumer demand, also that generated by consumers from abroad due to the weakening of the tourism sector. At the same time, paradoxically, this sector had become relatively stronger in the case of Riga and Vilnius – capitals of the countries most heavily affected by the crisis. Another typical feature of this period was the growing significance of advanced business services in all the analysed cases, which was particularly visible in Sofia. This indicates that the restructuring direction of the CEECs' metropolitan areas noticeable in the period before the crisis continued. Vilnius was one exception in this regard, although the relative stagnation of the sector could be observed in the capital city regions of Riga and Warsaw. In contrast, the increasing role of public services, quite probably due to

the continuing intervention of the central authorities, could best be observed in Ljubljana, Bratislava, and Tallinn.

To sum up, it should be noted that the largest, and thereby the most economically diversified, metropolitan areas of Warsaw, Budapest, and Prague demonstrated a relatively considerable inertia of their economic structures both during the crisis and in the post-crisis conditions. While in the case of Warsaw and Budapest this could be observed also in the period leading up to the crisis, Prague had earlier been able to change its economic structure much faster, following the expansion of the business services sector.

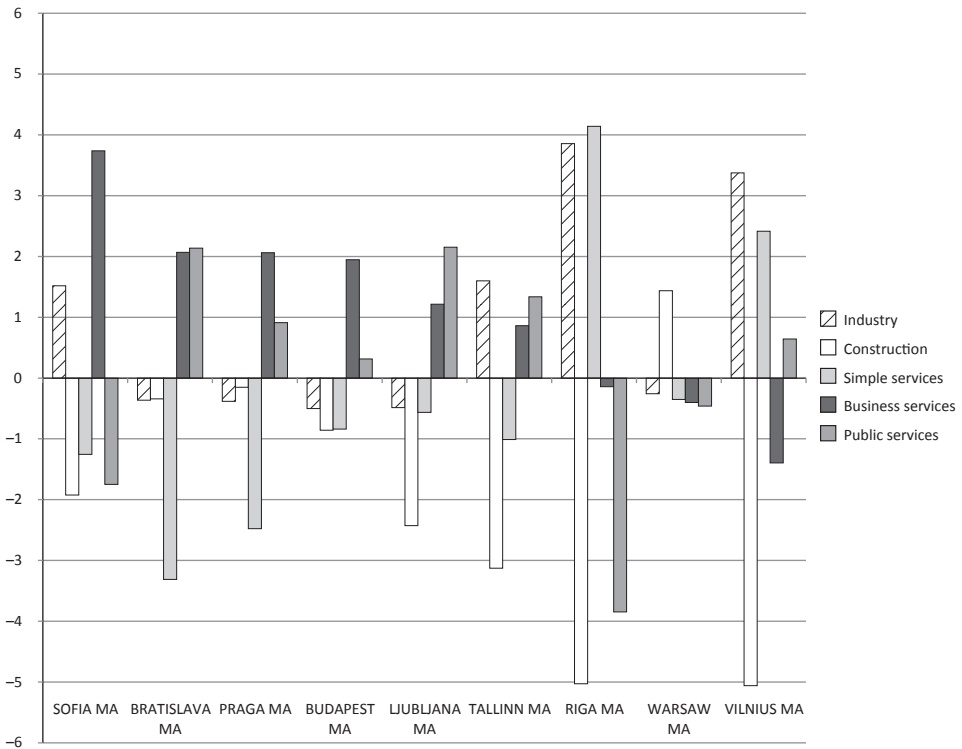


Figure 5. Structural change of MAs' economies in 2008–2011 (percentage points, pp)

* Bucharest was excluded from the analysis due to low reliability of statistical data.

Source: own elaboration based on Eurostat data.

Another sphere that could have been affected by the economic crisis involved the relations between the metropolis and its regional hinterland. The rapidly widening disparities in the level of economic development between the metropolis and the region, visible especially in the first phase of the transformation, characterised all the CEECs (Table 3). In effect, the scale of these disparities measured by GDP per capita was the highest of all the EU countries (cf. Smętkowski et al., 2011). Interestingly, there was a distinct catch-up effect observable during the

crisis, particularly in the Riga and Warsaw MAs, although in both these cases the narrowing scale of the disparities could also be seen in the earlier period of rapid economic growth. In the remaining cases, a visible tendency for reducing these disparities or their stagnation could be observed. The only unquestionable exceptions in this regard were Sofia, and to a lesser extent, Vilnius. One of the potential reasons for such convergence, which can be seen as quite surprising, given the relatively fast development of the metropolis compared to the rest of the country, could include the increased spread effects within the metropolitan regions. This could involve, on the one hand, an increased investment attractiveness of the direct metropolitan surroundings for business activities required by the metropolis, mostly in the sphere of transport and industrial operations. On the other hand, it could be a consequence of the increased polycentricity of the metropolitan areas' structure, which in turn could lead to increased work commuting from the regional hinterland to the metropolis. This can result in the transfer of earnings from work and a boosted consumer demand driving the development of simple services in the regional hinterland.

Table 3. GDP per capita ratio between the metropolis and its regional hinterland*

Metropolitan macroregion	Ratio				Change		
	1995	2004	2008	2011	1995–2004	2004–2008	2008–2011
Bratislava	1.86	1.87	2.01	2.02	0.01	0.15	0.01
Bucharest	1.32	2.43	3.17	3.05	1.11	0.74	–0.13
Budapest	1.72	2.00	2.17	2.20	0.27	0.17	0.03
Ljubljana	1.57	1.60	1.63	1.61	0.03	0.03	–0.03
Prague	1.39	1.77	1.94	1.82	0.37	0.17	–0.12
Riga	1.47	2.13	2.13	1.80	0.66	0.01	–0.33
Sofia	1.60	2.22	2.81	3.21	0.62	0.59	0.40
Tallinn	1.74	2.28	2.38	2.45	0.53	0.10	0.07
Vilnius	1.31	1.89	2.07	2.20	0.58	0.18	0.13
Warsaw	2.00	2.35	2.44	2.28	0.35	0.09	–0.17

* Ratio for the metropolis calculated for the city within the administrative boundaries together with the surrounding NUTS3; regional hinterland defined as the NUTS2 region or the directly adjoining NUTS3 regions

Source: own elaboration based on Eurostat data.

Case studies of selected metropolises

An in-depth evaluation of the impact of the economic crisis on selected aspects of metropolisation can only be attempted on a micro scale, that is, at the level of a single metropolis, due to the availability and comparability of statistical data. Consequently, two categories were selected for analysis – the labour market and the office property market – in two case studies of the cities that had opposite dynamics of economic growth. These are Warsaw, which recorded growth, and

Riga, whose MA, similarly to the whole country, suffered from the deepest crisis compared to all of the capital city regions included in this research.

The labour market

In the case of Warsaw, changes in the labour market were analysed for two sub-periods: 2005–2008, comprising a period of rapid economic growth, and 2008–2012, when an economic slowdown could be observed (Figure 6). The former period, taking into account the number of people employed in companies with 10 or more staff, saw an increase in employment by 10%, whereas in the next four years the aggregate increase in this area totalled a mere 2%.

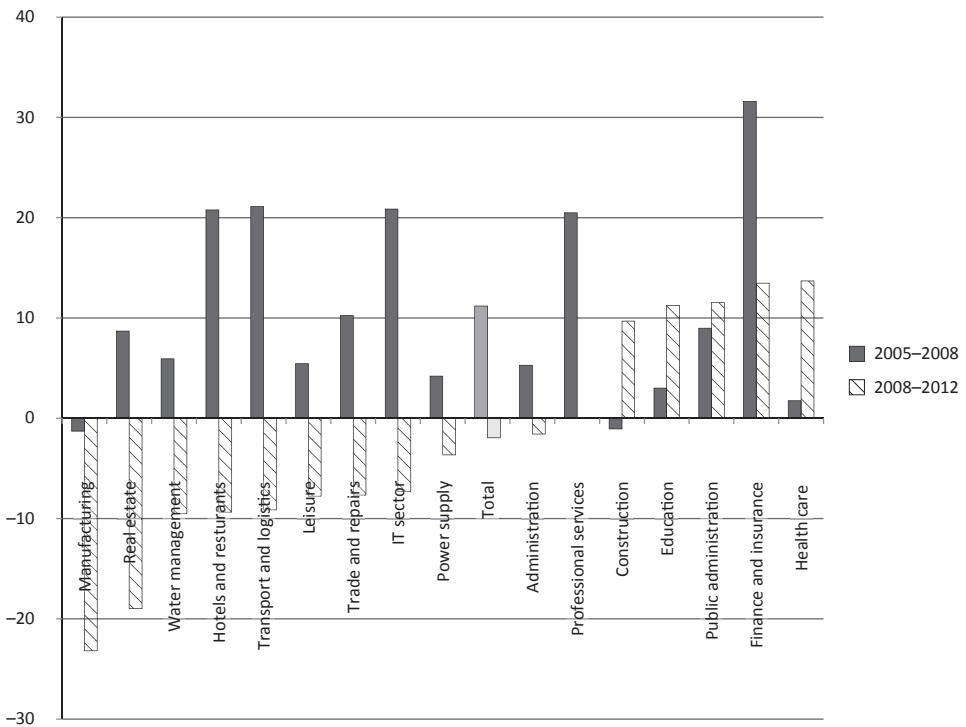


Figure 6. Changes in the number of employed in Warsaw in 2005–2012 [%]*

* Statistics for businesses employing 10 or more staff.

Source: own elaboration based on Central Statistical Office data.

Among the biggest losers in terms of their share in Warsaw’s labour market was the financial and insurance sector, which employed ca. 85,000 staff, and currently ranked 2nd with a 10.5% share. The sector expanded rapidly in the period leading up to the crisis (an increase by more than 30% in three years), but the years after 2008 saw a continued rise in employment in the sector, by 10,000 jobs (13.5%) overall. Other sectors that were developing at a modest rate prior to

2008, but grew rapidly in the recent period, included public services such as public administration, education, and health care. On the one hand, this can point to an increasing scale of public intervention, but on the other hand, it can be viewed as a consequence of the development of private enterprises to satisfy the growing demand for health and education services. A similar conclusion can be drawn in the case of employment in the construction sector, which is growing as a result of implementing many public investment projects, including those financed by the European Union, but also due to the continued demand for commercial property.

Other branches that were developing rapidly prior to 2008 responded to the new circumstances in a variety of ways. In the case of professional services, employment had stabilised and the sector maintained its 9.4% share in the labour market (securing its 3rd place in the ranking), whereas the ICT sector had shed more than 7% of jobs. The transportation and warehousing sectors performed rather badly (which could also mean that these activities were being relocated outside of the city's administrative boundaries), as were the accommodation and catering sectors, which lost nearly 10% of jobs due to the reduced demand.

Nevertheless, the biggest losers in the period of economic slowdown in Warsaw included manufacturing and real estate service providers, where the loss of jobs reached 20% of the workforce. In the former case, this was associated with the commissioning of new industrial plants in the vicinity of Warsaw. Similarly, the trade sector performed poorly but managed to retain its first place in the Warsaw job market, with a 16% share (130,000 employed).

Interestingly, a comparison of the situation of Warsaw to that of Riga, one of the capital cities most heavily hit by the economic crisis (with an overall loss of jobs in the 2008–2012 period reaching 17%) reveals certain similarities (Figure 7). Firstly, in Riga the financial, insurance, and professional services sector was developing better than other branches during the crisis, recording an astounding 20% increase. Just as in Warsaw, this was accompanied by increasing employment in the public sector, mainly in education and health care. However, there were no new jobs created in public administration, where the government's austerity schemes slashed 30% of jobs over a four-year period. The construction sector was even worse hit, as it had lost more than half of its jobs, together with the industrial sector, which recorded a drop in employment of nearly 40%. In the former case, this could demonstrate the scale of the speculative bubble, whose size was nowhere near to that of Warsaw. In the latter case, the crisis, just as in Warsaw, had accelerated deindustrialisation processes within the centre of the agglomeration, while at the same time the industrial sectors in the metropolitan area were being consolidated. On the other hand, the fall in individual consumption, which was bigger than in Poland, and weaker economic performance, led to a drop in the number of jobs in the simple services sector by 20%, mainly in trade, hotel, and catering activities.

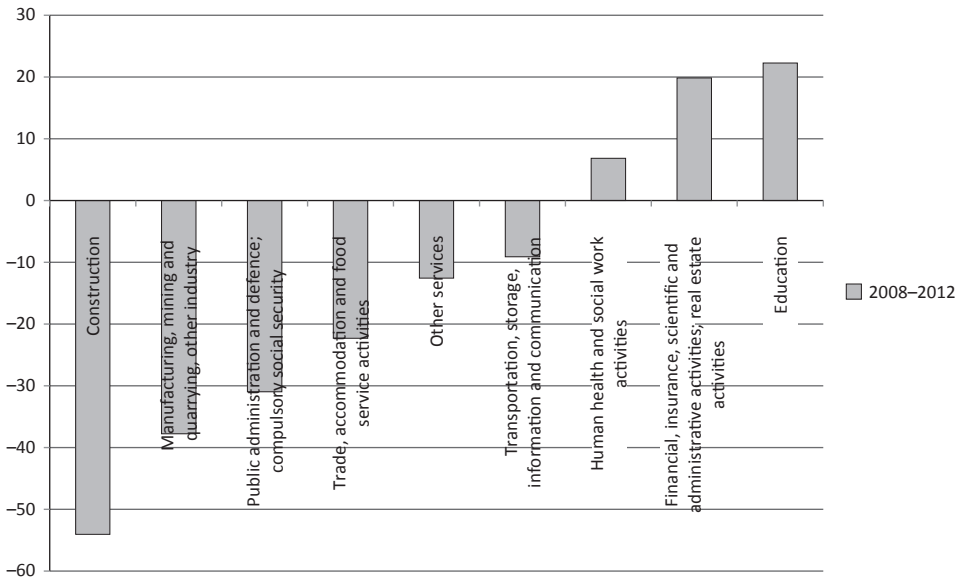


Figure 7. Change in the number of employed in Riga in 2008–2012 [%]

Source: own elaboration based on CSO data.

Office property market

In 2004–2014, the volume of modern office space in Warsaw increased twofold, from 2,400,000 m² to ca. 4,400,000 m². The annual increase of modern office space in Warsaw, shown on the diagram (on average, 250,000 m² per year) were characterised by a distinct cyclicity: periods of high supply, 250–300,000 m², were alternating with periods of downturn in the office property market, when ca. 150–200,000 m² of new office space was put to use (Figure 8). It should also be noted that the impact of the most recent economic slowdown in 2008 was felt only in 2011, which indicates a delay of two to three years in relation to GDP performance. Overall, the outlays on the construction of new office buildings in Warsaw could be estimated at MEUR 500 per year, while the annual investment spending by the city authorities totals were ca. MEUR 900.

The dynamics of office space growth in Riga in 2004–2014 were even faster than that of Warsaw, but were largely a consequence of the low base effect (Figure 9). The stock of modern office space increased nearly threefold, from 200,000 m² to 600,000 m². In Riga, just as in Warsaw, the years leading up to the crisis brought record highs in this regard. The main difference between Riga and Warsaw was the lower supply of modern office space in the former as a result of the crisis. Stagnation in the property market, which was observable in 2011–2013, was slowly replaced by a recovery, visible in the first half of 2014. It should be borne in mind, however, that a large single development project could significantly affect the overall picture in such a shallow market.

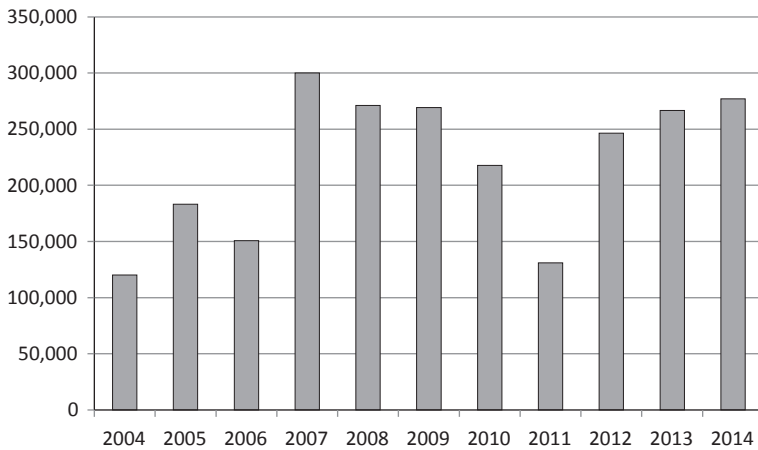


Figure 8. Annual increase of office space in Warsaw in 2004–2014 (sq m)

Source: own elaboration based on Warsaw Research Forum data.

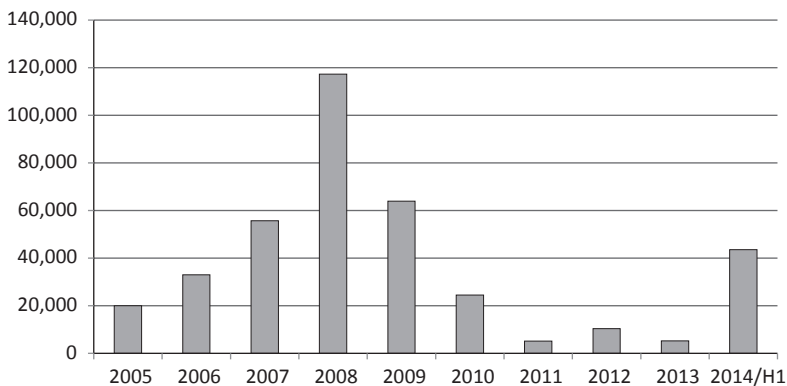


Figure 9. Annual increase of office space in Riga in 2005–2014 (sq m)

Source: own elaboration based on NEWSEC data (2014).

Conclusions

Metropolisation in the CEECs is manifested mainly by the growing role of large cities, especially the national capitals, in economic development processes. The global financial crisis, which developed into a recession that affected most of the CEE countries, has not put an end to this process either in the countries which were the least hit by the crisis, i.e. Poland and Slovakia, or in the Baltic states where the economic downturn was the deepest.

The main factor underpinning the development of the capital city regions was the increasing role of the advanced business services sector in their economies, which triggered a number of interrelated changes in the labour market or the

office property market. It should also be noted that, in some countries, the share of the business services sector in generating GVA reached a saturation level of ca. 30%. Therefore, the structural changes taking place within the metropolitan areas are becoming slower. In addition to that, specialisation within the metropolitan areas is increasing, due to some business activities being pushed from the city centres to the outer parts of the metropolitan area, especially in industry and selected simple services. Presumably, these developments are taking place on an increasingly wider spatial scale, which is manifested by an improvement of the situation in the outer parts of the metropolitan macroregions in relation to the metropolis, a process particularly visible during the crisis and the economic slowdown.

The development of business services is largely driven by the influx of foreign capital, including transnational corporations drawn to metropolises by a low-cost workforce with relevant qualifications for the advanced services sector. The role of supply factors is demonstrated by the linear correlation between the size of the population in the metropolitan area (functional urban area for work commuting), and the number of branches/subsidiaries of major global corporations, whereas the demand factors associated with the scale of the national economy can be of lesser importance, especially given the growing volume of export services, also those, provided by transnational corporate structures. Among advanced services, financial and insurance services play a special role; they contributed to the increase in the number of jobs even in the time of the economic crisis, as proved by the examples of Warsaw and Riga. During the crisis, the number of people employed in public services such as healthcare and education also increased. This, however, could be a consequence of the development of the metropolitan class and an increased demand for such services from corporate employees, satisfied by private companies operating in these sectors.

The expansion of the service sector was noticeably associated with an increase in modern office space, which means that the construction sector, despite a downturn driven by the speculative bubble in the residential property market, is also developing relatively well. This, however, could also be affected by public investment projects, also those co-financed from the EU funds.

To sum up, the recent economic crisis did not change the development model that had evolved in the last decade, which suggests that the currently observable metropolisation processes in the CEECs will continue. It should also be noted that the high level of development that the capital city regions of the CEECs had achieved, associated with the expansion of knowledge-intensive business services, needs to be complemented in the near future with the two remaining pillars driving the growth of contemporary metropolises, viz. hi-tech and creative industries. Should this not be the case, the current developments and processes are likely to lose momentum, which could in effect gradually lead to the narrowing of the gap in levels of development between the metropolises and the remaining regions in the countries that were analysed.

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