

URBAN EMPLOYMENT AND FUNCTIONALITY IN ROMANIA IN THE POST-COMMUNIST PERIOD

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Abstract. The paper provides an overview of urban restructuring in post-communist Romania over the communist period. The objective of this paper is to emphasize the dynamics of the employed and unemployed population in the Romanian towns and the changes in the urban functionality over the post-communist period. Relevant indicators were used in order to provide comprehensive information on the urban workforce (active and employed population dynamics, degree of employed population and unemployment dynamics). The functional classification of towns was assessed by using the nomograph (in terms of the share of population employed in the three economic sectors: primary, secondary and tertiary), also by using the Specialization Index. The results show two distinct periods in the dynamics and structure of the active population of Romanian towns after the fall of the communist regime: one of steep decline until 2002 and the other of stagnation up to 2011. Presently, the urban system is undergoing a process of restructuring, the urbanization phenomenon acquiring new characteristics and dimensions. The industrial city – the representative type of urban settlement, was gradually replaced by the polyfunctional and services town, as part of the country's economic and social-political development targets set up in the *Romania's Territorial Development Strategy 2014–2035*.

Key words: active population, urban function, changes, specialization index, Romania.

1. Introduction

The development of Romanian towns was largely influenced by two major elements, namely, post-1990 industrial restructuring and the financial crisis begun in 2008.

The social and physical conditions of cities and their fortunes may seem to depend on their geography and legacy, but the root causes of their crises or otherwise are in the existing socio-political system which twists, distorts or recreates the meanings of the inherited landscape in its own image (Golubchikov *et al.*, 2014).

Restructuring the Romanian economy had a severer or milder impact on all the economic branches and sub-branches, whether in the country-side or in town. Looking at the dynamics and structure of the active urban population in this country, one can distinguish two periods: of increase, through the political decisions made in the communist period and of steep decline in the period of economic transition. This evolution confirmed the interest of the pre-1989 political leadership to maintain a high population employment ratio and the concern for the economic downslide that followed.

Among the main elements defining the urban system (demographic size, economic and socio-cultural activities, urban equipment grade, etc.) the functions of towns, that lie at their origin and determine their development, represent the most significant, but also the most difficult element to quantify in any geographical analysis (Urucu *et al.*, 2006).

The range and complexity of urban functions, materialized in the activities

of towns, whose dimension and structure evolve in time, lead to changes in their importance and rank within their own urban network, or within the territory (Ianoș, 2004). It is important to analyse the economic and social activities going on in Romania's towns during the post-communist period in order to realize the radical economic changes occurred in the dimension and characteristic features of the general process of the country's urbanization compared with the pre-war period and with the particularities of that process in Europe. Right after 1989, as a result of the radical political and economic changes that took place in this country, towns in Romania experienced essential modifications in their demographic, social and economic evolution and hence, in their size and functional structure. The new particularities of Romania's development, less obvious in the 1992 Population Census, but strikingly evident in mid-10th decade, would restructure urban dimensions and functions.

The departure from the legacies of the communist past has been effected through multiple transformation dynamics of institutional, social and urban change (Sýkora and Bouzarovski, 2012).

The main objectives of this paper are to highlight the dynamics of the employed and unemployed population and the changes in urban functionality over the post-communist period.

2. Data and methodology

In view of the above, specific spatial and statistical data were used in order to assess the urban workforce and the functionality patterns of Romanian

towns. Thus, spatial data (GIS processing of maps at different spatial and temporal scales after the fall of the communist regime, when urban sprawl began), statistical data (supplied by the National Institute of Statistics for the 1991-2012 interval were resorted to) and field surveys were undertaken. In addition, relevant statistical data were processed (e.g. active and employed population dynamics, degree of employed population and unemployment dynamics) in order to provide comprehensive information on the urban workforce.

Functional classification implied placing each urban centre on the nomograph in terms of the share of population employed in the three economic sectors (primary, secondary and tertiary). This procedure led us to single out four functional categories of town: industrial (50% and over of people working in industry and constructions); agricultural (50% and over in farming, forestry, hunting and fishing); services (50% and over in the tertiary sector) and mixt (no sector with an over 50% record of employed population). The database used included the overall employed population and its structure by economic activities (INS, 1992, 2002, 2011).

The functional profile was also assessed by using the Specialization Index (Enache, 1986) (also referred to in the specialist literature as Disimilarity Index - Merenne-Schoumaker, 1991 or "Mean deviation" - Marshall, 1975). This index represents a unit of measure quantifying the grade of specialization of an area compared with the territory it belongs to, in our case the local level (the town) and the national level. The Specialization Index was calculated by taking into account all the economic branches

existing in the respective territory. Each branch is calculated by percentages of employees in a branch from the total town employees and employees by branch to national total employees (INS, 1992, 2002, 2011).

3. Results and discussions

3.1. The town workforce

3.1.1. Workforce dynamics

In the 1990s, the population employment model suffered essential changes compared to the previous period, the employment of labour being one of the most tensioned components of transition. The privatization and decentralisation of the Romanian economy had a major effect on the job market, leading to significant lay-offs and the official acknowledgement of unemployment as a phenomenon. Economic involutions reduced labour employment chances; the number of active population would decrease, the activity and occupancy rate would fall, while unemployment would become ever more acute (Mitrică, 2008).

During the 1992-2011 period, the population would shift between the economic branches, both at national and local levels. The structure of the employed population by economic activities would alter as the national economy passed through a period of transition from the central-based socialist economic system to the private one. Diminished industrial activity, of big inefficient economic units, in particular reduced the share of active population in the secondary sector. Workforce employment distribution in the territory indicates high concentrations in the urban area, which is a highly-industrialized environment, hosting numerous companies with state capital, as well as mixt companies with foreign and private capital.

The years spanning the 1992-2011 period witnessed a numerical decrease of the active population, and an increasing inactive segment, a phenomenon due largely to ageing (ever more people would retire), as well as to a negative natural increase balance (Fig. 1). However, percentages could be irrelevant since the black labour-market is not statistically recorded. Another trend shows ever more people working in the private sector, an alternative of employment for the laid-offs (Mocanu, 2008).

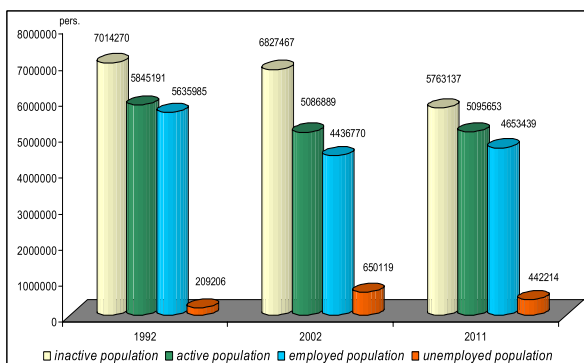


Fig. 1. Workforce dynamics in towns, 1992-2011

Speaking of participation in the economic activity, figures show a decrease in the share of the active urban population, a main consequence of restructuring the major branches of the national economy and of the privatization process which led to numerous lay-offs among industrial employees, in particular (Ianoș, 1998). Thus, the rate of activity in the urban had a fluctuating evolution, with decreases in-between the last three censuses, especially in the first interval (from 47.4% in 1992 to 42.9% in 2002), followed by a period of growth of up to 46.9% in 2011. Growth in this case was the result of raising 53 rural settlements to town status between 2002 and 2011, a decision that contributed to increasing the number and share of the active population.

In 1992, the share of the active population varied from 80% at Mioveni (a town which hosted Dacia Car Factory, one of the most dynamic economic companies in this country, attracting the workforce from the surrounding settlements) to 30.4% at Bălan, while 72 towns (i.e. 26.9% of the urban network) had an above-average-score. After 1992, the economic and social conditions (restructuring and privatization of industrial units), of mammoth ones, in particular, brought also unemployment and urban-to-rural migration. In 2002, active population values frequently ranged between 30-40%, with the lowest record at Bolintin-Vale and the highest one (59.9%) at Budești.

In the years spanning the 1992-2011 interval, a number of 238 urban centres had a low record, with steepest decreases at Roznov, Bălan, Buhuși and Anina (between -45.0 and 60.0%), one-industry towns at the time of the central-based economy. Eighteen towns registered workforce increases by up to 10%, mostly those located in the influence areas of Bucharest Municipality, e.g. Bolintin-Vale, Buftea, Fundulea (Grigorescu *et al.*, 2012), as well as Odobești, Mihăilești, Valea lui Mihai, Borșa, and Ovidiu in the vicinity of large cities. The numerical growth or decrease of industrial employees and of the workforce, generally, is not so much dependent on town profile as on local economic conditions.

3.1.2. Employment and unemployment

The occupancy level, calculated as percentage ratio between employed population and working-age population, indicates the job-offer of an area's economy. Between 1992 and 2002, simultaneously with the general trend of numerical increases of the unemployed

and constant reduction of the workforce, the labour occupancy level kept falling.

After controlling for centre size, density, industry mix, location within the region and spatial amenities, labour force accessibility is significantly related to growth centre (Giuliano *et al.*, 2012).

The general dynamics and territorial distribution of the labour occupancy level in the urban was largely influenced by the delayed implementation of restructuring certain industrial branches (Popescu, 2000; Mitrică, 2008). A slight numerical increase of employees occurred in the years 2002-2011.

In the 1992-2002 period, the level of employment kept decreasing constantly

(from 96.4% to 87.2%) (Fig. 2). At the beginning of transition, greater fluctuations had registered the processing industry, the situation being relatively constant in the mining sector which benefitted from state subventions. However, as of mid-1990s, when neither mining would be financed by the Government, the number of employees suddenly dropped, adding to the unemployment figures. While in 1992, the occupancy level varied between 98.3% (Azuga) and 81.9% (Borșa), ten years later the discrepancy widened, from a maximum of 97.3% at Piatra-Olt to a minimum of only 62.0% at Zărnești. In 2011, the economy recovering and the high proportion of the newly-declared towns with an agricultural profile, the occupancy level rose to 91.3%.

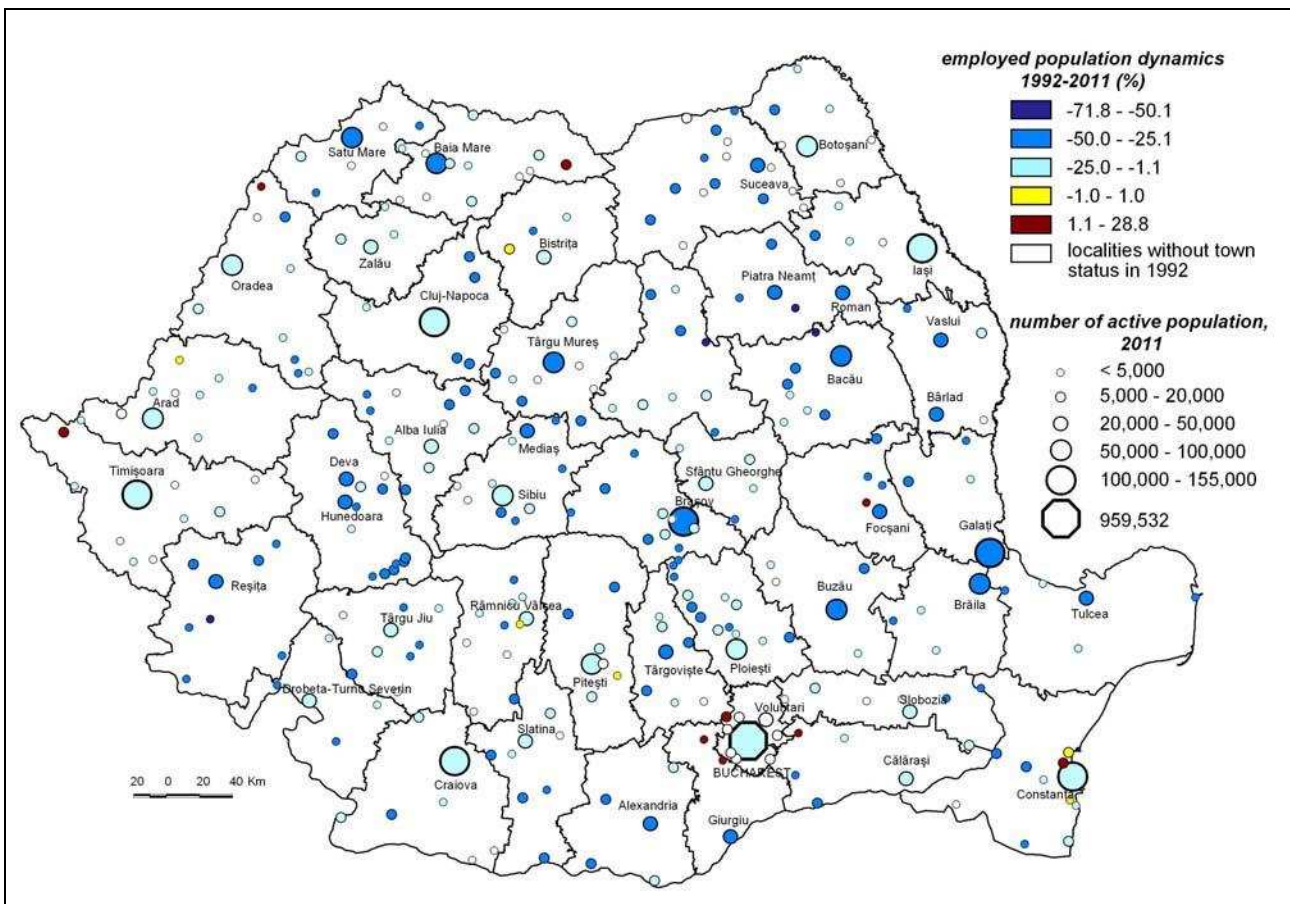


Fig. 2. The employed population dynamics, 1992-2011

Over 1992-2011, highest lay-offs registered the one-industry towns of Roznov, Bălan, Buhuși and Anina (50-65.2%), Ștei, Cugir, Târnăveni, Făgăraș, Moldova Nouă, Lupeni, Oțelu Roșu, Victoria, Vulcan, Balș, Plopeni, and Uricani (40-50%). A number of nine towns recorded mild employment increases (2.3-28.8%), e.g. Buftea, Mihăilești, Bolintin-Vale, and Fundulea (located within the influence area of Bucharest Municipality), Ovidiu (Constanța Municipality), Borșa (Baia Mare), Valea lui Mihai (Oradea), Odobești (Focșani) and Sânnicolau Mare (Timișoara).

One of the components that tensioned the transition period was unemployment. In the urban area, from an average rate of 3.6%, values soared to 12.8% in 2007, dropping slightly to 8.7% in 2011. The 1992 unemployment values became reference points for the increase of this phenomenon. Subsequently, mild decreases at national level proved rather worrying at town level, as in mid-1990s unemployment appeared to be concentrated in well-delimited areas. Most affected were the Moldavian counties, next standing Hunedoara and Vâlcea counties which, having benefitted from mining subventions had been spared difficult problems. Between 1993 and 1996 the industrial decline was stopped and the privatization of big industrial units slowed down, the Government's intention being to modernize, restructure and eventually proceed to privatization.

After 1997, the policy promoted by the new Government was to accelerate the process of privatization and to close down the great debtor enterprises. A major impact had the reduction of

former financial facilities for the mining sector. Numerous miners were remitted and activities reduced, affecting also other economic agents engaged in connex activities—suppliers of materials, equipment and services, dealers in trade and services. The wave of remittances targeted not only the classical economic sectors, such as mining and the iron-and-steel industry, but also the chemical industry, machine-building and the textile works (Popescu, 2000; Pohoată, 2007; Mitrică, 2008). The situation became particularly difficult among the export-oriented companies affected by the powerful appreciation of the Romanian coin, the Leu, versus the US Dollar and the Euro.

The year 2002 registered the highest unemployment values out of the three censuses: 38.0% at Zărnești and 2.7% at Piatra-Olt. Elevated values (over 25%) scored several one-industry towns (Călan, Uricani, Copșa Mică, Comarnic and Râșnov), as well as agricultural towns (Siret, Isaccea, Corabia, Nehoiu, Pogoanele, Țândărei, Târgu Bujor, Mizil, and Băilești). Lowest values were recorded in some county-seat towns, such as Arad, Satu Mare, Oradea, Focșani and in Romania's capital Bucharest, offering the workforce a varied range of employment opportunities. Most laid-offs, who came from the mining sector, could hardly get adapted (primarily mentally) to the new economic and social demands.

Blažek and Netrdová in 2012 showed the ambiguous nature of the relationship between an economic crisis and the intensity of micro-regional differences or, rather, their dependence, owing to the nature and severity of the crisis as well as the statistical measures of variability.

The economic-financial crisis revealed the fragility of some industrial (sub) branches known for almost explosive development prior to recession (e.g. car parts, garments, etc.), which in the new global conditions had to restructure or slow down their activities. In the towns that had a high unemployment rate even before the crisis, imbalances in the regional or local labour markets became more acute (Mocanu, 2010).

In 2011, unemployment varied from 23.3% at Fieni and 3.4% at Cajvana, so that only 96 towns ranked below the urban average of 8.7%, 21 of them being new towns given that status after 2002 (Fig. 3). Highest values (over 15%) are characteristic of towns with a coal industry (10), processing industry (4), agricultural (6), or mixt activities (2). Lowest values registered the group of newly-declared towns, whose population was engaged mainly in agriculture.

The failure of the national economy to provide decently paid jobs, encouraged, and still does, the qualified workforce (but others, too) to look for work abroad. The massive migration (external and internal) of labour from the less-developed zones (rural and small towns), would imbalance and even depopulate certain areas (in Muntenia, the Danube-limitrophe counties, those around Bucharest city, in central Transylvania and south Oltenia regions), especially if they also had a low birth record (Moldavia and Maramureș).

The economically disadvantaged towns with a declining economy, generalised job shortage, low educated workforce and few development opportunities fell into the category of disadvantaged communities (World Bank, 2013).

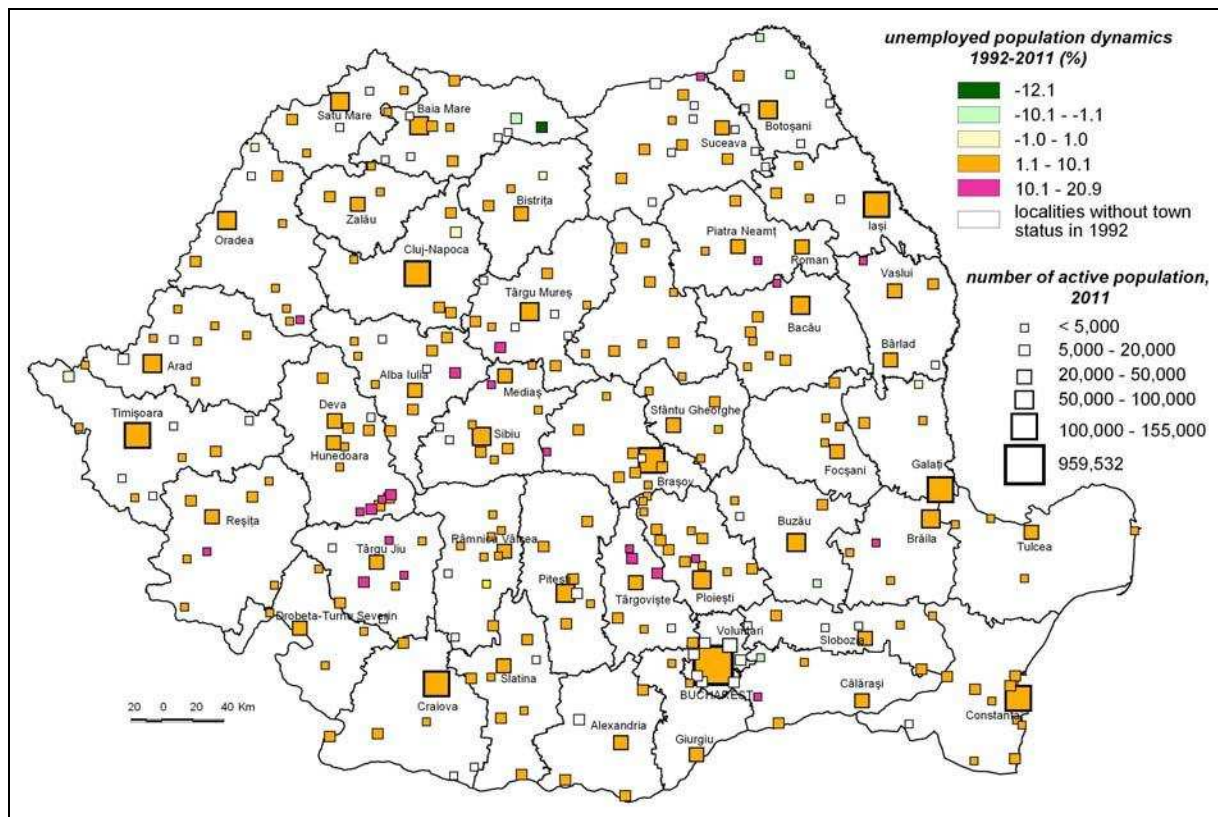


Fig. 3. Unemployed population dynamics, 1992-2011

3.2. *Urban functionality changes*

The urban function has been studied extensively in urban planning and geographical science. The dynamics and structure of the active and of the employed population are closely correlating with the functional capacity of cities, the urban function representing the 'profession' exerted by the city, the very reason for its being, it is the form in which it is viewed from the outside. The urban functions are those activities that justify the existence and development of a town, producing the resources needed for its life. The town exerts its influence through the products it buys or sells, through its administration, more precisely through certain outside-oriented activities that constitute its very functions (Beaujeu-Garnier and Chabot, 1971). The range and complexity of urban functions are visible in the activity of towns, whose structure evolves in time both in terms of size and structure, entailing changes of importance within the urban network they are part of, or within the territory itself.

The biggest problem is to functionally classify the urban centres. Classification is made according to the main activity discharged by each town. All large cities are more or less multifunctional and, saying that a town is industrial does not mean that trade is not going on there. Besides, a town's original function is in no way relevant for the main activity currently discharged there. In *The Dictionary of Human Geography* (Johnston *et al.*, 2000), one reads that the 'functional classification of towns represents their being grouped by economic functions, mainly by the structures of industrial activities and of the occupied population. Most classifications are inductive, underlain

by analysis methods of the town's functional components'.

The town is a 'product' of society, being influenced by the wide range of social, economic and political conditions, as well as by the elements of its geographical environment. People which use to gather in town in order to better discharge an activity, could be essential to push the town forward. Function, a term borrowed from physiology (towns being compared to an organism), was introduced by Frederic Ratzel in 1891 and taken over by specialists from other domains (urbanism, geography, economic sciences, etc.) (Cucu, 2001).

According to *Dicționarul de Geografie Umană* (Erdeli *et al.*, 1999) the functional classification of towns represents a 'typology based on the functional specialisation of towns in terms of complex series of indicators regarding their economic activity and social-cultural life. This typology individualises industrial, administrative, commercial, agrarian, cultural, academic and tourist functions, all having also communication, transport and other functions.

In 2007, in ESPON (2007) project 1.4.3. *Study on Urban Functions*, it was studied the functional aspects of all the Functional Urban Areas defined by the morphological study. They have studied 5 functions for which it could gather enough data: administrative functions and international functions; decisions function; transport functions; knowledge function; and cultural function.

The factors that account for the differences in the economic productivity of urban areas have remained difficult to measure and identify unambiguously. As

a result, Lobo *et al.* derive a new expression for the Total Factor Productivity (TFP) of urban areas, which is the standard measure of economic productivity per unit of aggregate production factors (labour and capital). Productivity is maximized by the combination of high wages and low labour input, high productivity cities show invariably high wages and high levels of employment relative to their size expectation (Lobo, 2013).

In 2015, Crooks *et al.* have been focusing 'in particular on information harvested from social media and other open-source and volunteered datasets (e.g. trajectory and OpenStreetMap data). These data provide a first-hand account of form and function from the people who define urban space through their activities. This novel bottom-up approach to study these concepts complements traditional urban studies to provide a new lens for studying urban activity. By synthesizing recent advancements in the analysis of open-source data, we provide a new typology for characterizing the role of

crowd sourcing in the study of urban morphology. They illustrate 'this new perspective by showing how social media, trajectory, and traffic data can be analyzed to capture the evolving nature of a city's form and function'.

Looking at town dynamics by functional type as it appears in the last three censuses (1992, 2002 and 2011), one finds a series of changes in the town functional profile (Table 1).

1. *Industrial towns.* In 2011, this category included 29 towns, that is, only 15% of those registered in 1992 (Fig. 4). As a result of industrial collapse, their share within the urban network as a whole fell from 72.7% in 1992 to 37.0% in 2002 and to 9.1% in 2011 (Table 1). In a number of 44 towns, the population employed in the secondary sector represented less than 25%, while in 1992 only 2 towns had been in this situation. At the head of the town hierarchy stand one-industry towns (Borsec-67.2%, Copșa Mică-64.3%, Mioveni-63.0%, Cugir-62.1%, Țicleni-60.6%, and Rovinari-60.3%).

Table 1. Dynamics of functional town types, 1992-2011
(no. of towns)

Functional types	1992	2002	2011
INDUSTRIAL TOWNS	189	98	29
Complex industrial and services	156	95	29
Specialised industrial	23	1	-
Industrial and agricultural	-	-	-
Mixt industrial	10	2	-
AGRICULTURAL TOWNS	2	6	11
Agricultural and services	-	-	5
Mixt agricultural	2	6	6
SERVICES TOWNS	14	83	146
Services and industry	14	74	132
Specialised services	-	3	5
Services and agricultural	-	1	1
Mixt services	-	5	8
MIXT TOWNS	55	78	134
TOTAL TOWNS	260	265	320

Source: data processed from the Censuses of Population and Housing, 1992, 2002, 2011, National Institute of Statistics.

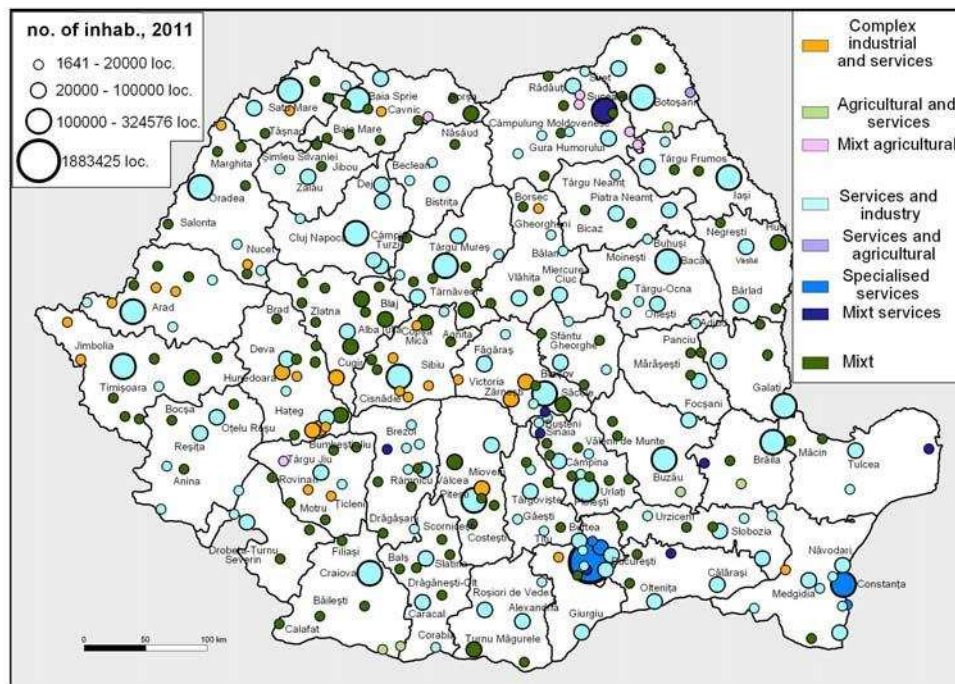


Fig. 4. Urban functionality - disparities, 2011

After 1989, a transition from the industrial to the services town type is noticeable a number of 143 towns losing their industrial function, over the 1992-2011 period (Fig. 5). However, the industrial functions continued to be important, much more important than in the developed West-European economies, because industry and modern technology had to secure the Romanian urban system a future development compatible with the exigency of integration into the European urban system. From a number of three sub-category of industrial towns in 1992 (mixt industrial, specialised industrial, complex industrial and services), the 2011 census data indicate only one categories, namely, complex industrial and services towns. The 29 towns in this category had an industrial population (50-75%), services population (25-50%) and agricultural population (up to 25%). The biggest industrial town was Hunedoara, which hosted the Arcelor Mittal Industrial

Company and an Industrial Park that had the best offers for investors.

Noteworthy, in 2011 no other county-seat fell into this category (recalling that there had been 4 in 2002: Vaslui, Braşov, Baia Mare, Piteşti and 39 in 1992) because they migrated towards the services and mixt-town types.

Through the 7- growth poles (Constanţa, Craiova, Ploieşti, Iaşi, Braşov, Cluj-Napoca and Timișoara), the industry contributes significantly towards the achievement of economic development (Iacoboaia *et al.*, 2015). For exemple, Cluj-Napoca Growth Pole recorded the highest number of firms in the industry/1000 inhabitants, but in terms of the number of active employees in this sector is ahead of the Timișoara Growth Pole (Dranca, 2013). The advantages of some of these poles can be justified by the proximity to the European Union markets, the growth

poles benefiting from indicators values above the average country indicators (the percentage of employees in the industry and the density of firms in the industry) (Iacoboaia *et al.*, 2015). In the case of Iași Growth Pole, the regional polarization is based on the supply of high level services over the entire North-East Region and opportunities to cross border cooperation through the expansion of an agro-alimentary supply-chain. At the same time, human capital and higher birth rates than the national average are the strengths, and low connectivity and accessibility are the weaknesses for regional growth (Popescu, 2011).

Small industrial towns had to cope with new difficulties regarding the rational use of labour, the limited sphere in which it could be used, and disparities in the

workforce gender structure, industrial centres usually having a mining or textile profile.

2. *Agricultural towns*, by far more numerous 50-60 years before, appeared to increase numerically from two in 1992 (Însurăței and Mihăilești) to six in 2002 (Însurăței, Solca, Budești, Mihăilești, Sângeorz-Băi, and Piatra-Olt) and to eleven in 2011 (Fig. 4). In 2002, four of these settlements rose to town status in 1989, showed obvious signs of forcible rural-to-urban promotion, while in Solca and Sângeorz-Băi (towns since 1926 and 1960, respectively), agriculture had held an important place in the course of time, being a characteristic function of these urban settlements. In 2011, the population of these newly-declared towns was engaged mainly in agriculture (between 61.5 and 76.3%).

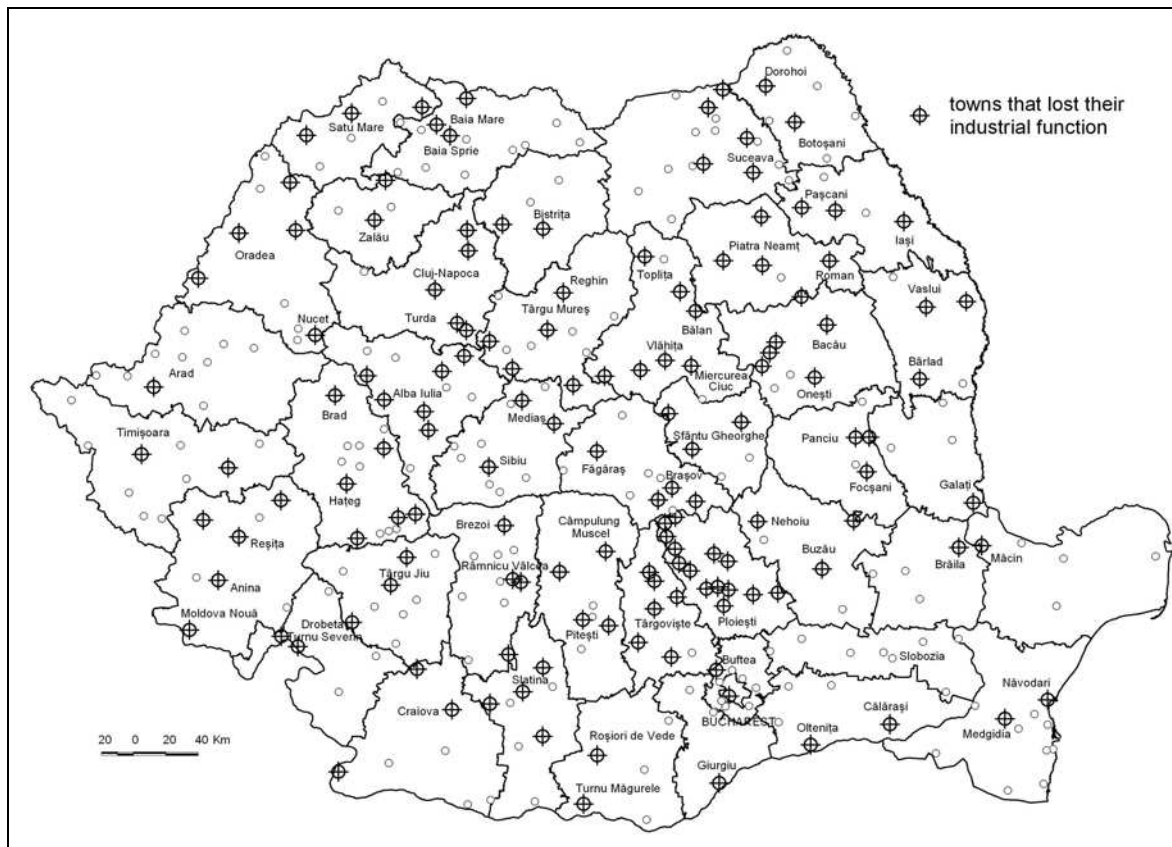


Fig. 5. Urban deindustrialization, 1992-2011

3. *Services towns*. The tertiary sector employed at least 50% of the population, while the other two sectors, being dependent on each other, had lower percentages. In 2011, services towns (141) represented 45.6% of all towns, beside 83 services towns in 2002 (31%), that is 9 times more than in 1992 (16 towns) at the Population Census (Fig. 4).

The share of employees in the services sector ranged from 50.2% to 78.5% (in Bucharest City). Regarding the Capital City, it has seen the possibility of combining public and private interventions towards a strategy geared at sustainable reuse of industrial sites in the city (Moțcanu-Dumitrescu, 2015). Another 13 towns had also an over 70% record (Otopeni, Voluntari, and Bragadiru, falling into Bucharest's influence area), Eforie, Constanța, Techirghiol, Sulina sited on the Black Sea coast (sea resorts), Sinaia and Predeal (mountain resorts) and the county-seat cities of Cluj-Napoca, Iași, Suceava, and Giurgiu. The workforce of the other economic sectors varied between 10.1% and 48.0% in industry, whereas in the case of the agricultural sector the situation ranged from 0.9% to 31.8%, findings revealing the numerical growth of the primary sector workforce.

After 1989, the economic and urban crisis led to the functional destructuring of towns, bringing up into discussion the functional model of town tertiarisation, with services having a positive evolution, particularly in the urban area.

Unlike 1992, the year in which all services towns ranked into the services-and-industrial town sub-category, in 2002 sub-categories diversified into three types: specialised services, services and agricultural, and mixt services towns.

Services and industrial towns became more numerous (132) than previous census data show (74), including the county-seats (38) that had migrated from the industrial, and spas-and-health resorts, as well as several other towns dominated by transport-and-trade activities, which justifies placing them into the services functional type. A special case is Mangalia, where tourism and trade held an important share, while the transport sector decreased compared to 1992.

Specialised services towns have an over 75% workforce in the tertiary sector (Otopeni, Voluntari, Constanța, Eforie and Bucharest). A special situation has Constanța City, the main port of Romania, with 75.5% of the workforce employed in transport and storage (15.2%), public administration, education, health-care and social assistance. However, it is Bucharest, Romania's capital that stands out with 78.5%, the city's profile including commercial activities, public administration and defence, social security, professional, scientific and technical activities, information and communication.

The category of services and agricultural towns has only one town – Ștefănești (Botoșani County), with 10.1% of the workforce in industry and 31.8% in agriculture, a percentage that also places this town into the latter category.

Mixt services towns have only 25% of the population employed in the primary and secondary sectors, industry declining at Sulina, Măgurele, Horezu, Predeal, Lehliu Gară, Sinaia, Făurei and the county-seat Suceava.

4. *Mixt towns* (134) have most of their population working in the secondary and tertiary sectors rather than in the primary one, industry employing only between

13.0% and 49.9%, services sector values range from 24.1% at Scornicești and 49.9% at Comănești and in Mediaș.

Statistical data show that in 2002 the three sectors, with the exception of agricultural towns, held approximately equal shares within the whole urban network. In 2011, services and mixt towns, respectively, industrial and agricultural held approximately equal shares within the whole urban network.

The functional profile was also assessed by using the Specialization Index. The 1992 index values oscillated from 0.67 at Uricani to 0.05 at Dumbrăveni. Only nine urban localities, among them Bălan, Țicleni, Lupeni, Aninoasa, Petrila, Căvnic, Vulcan and Moldova Nouă, all one-industry mining towns, scored above 0.50. A number of 19 towns (0.40 - 0.50) were engaged in tourism (Băile Herculane, Băile Tușnad, Eforie, and Predeal), constructions (Cernavodă), farming (Însurăței) and industrial activities (Rovinari, Motru, Nucet, Plopeni, Zărnești, Anina, Cisnădie, and Copșa Mică). Several small towns, discharging beside farming also basic services and small industrial activities, rank towards the bottom of the hierarchy (Dumbrăveni, Piatra-Olt, Valea lui Mihai, Strehăia, Isaccea, Seini, Zimnicea, Negrești, Întorsura Buzăului, Ovidiu, Hârlău, and Târgu Frumos (under 0,10).

In 2002, Specialization Index values (Fig. 6), fluctuating between 0.59 at Țicleni and 0.04 at Făget, dropped, so that only three towns (Țicleni, Lupeni, and Uricani) had an over 0.50 score. Towns with a mining, machine-building and tourism profile would register between 0.40 and 0.50.

Values under 0.10 registered the towns of Făget, Urlați, Negrești, Târgu Lăpuș, Curtici, Panciu, Săveni, Întorsura

Buzăului and Calafat, with highest negative values at Basarabi (-0.17), Azuga, Bălan (each -0.16), Uricani (-0.15), Borșa, Negru Vodă (-0.14), and Videle (-0.13). In some cases this variation was the result of the spectacular decrease of active population in the extractive industry, in others it was in the processing industry. The negative variation at Negru Vodă and Videle came from major decreases in the primary sector. What these towns had in common were important employment increases in the services sector (e.g. from 16.2% to 43.9% at Azuga). High positive index variations were recorded at Isaccea (by 0.25, due to the increase in the tertiary sector from 31.4% in 1992 to 62.6% in 2002), Valea lui Mihai (by 0.21, in the processing industry), Solca (0.20 in the primary sector, from 34.7% to 57.9%, while employment in the processing branch fell from 32.3% to 3.7%).

Extreme variations were caused by huge deviations from the national average. A number of 12 towns had the same value record at all the censuses discussed herein, in some cases the employee percentage structure being approximately equal, in other cases, there was a balance between positive and negative deviations (Abrud, Aiud, Dorohoi, Eforie, Lugoj, Mediaș, Motru, Tecuci, Țicleni, Toplița, Turnu Măgurele, and Vaslui).

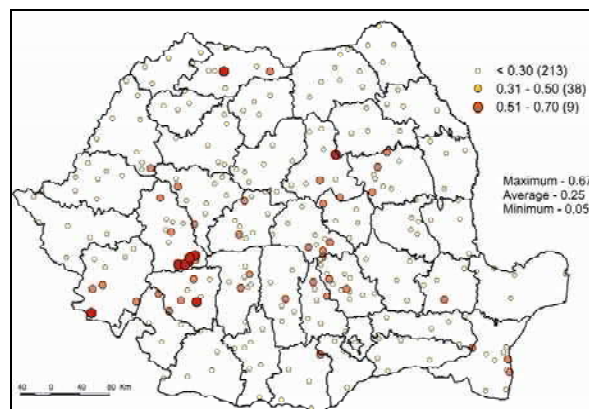


Fig. 6. Towns Specialisation Index, 1992

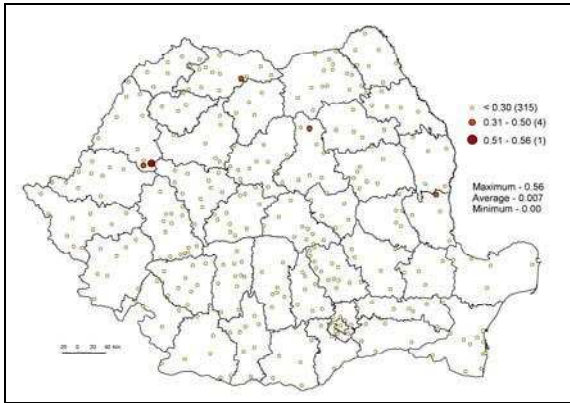


Fig. 7. Towns Specialisation Index, 2011

In 2011 Specialisation Index values were even more depressed, only five towns had an over 0.30 record – Nucet (mining, 0.55), Borsec (mineral water bottling, 0.49), Vașcău (mining, 0.46), Dragomirești and Berești (both agricultural, 0.38 and 0.35, respectively) (Fig. 7).

4. Conclusions

Two major elements had a great impact on the economy of Romanian towns, it is the post-1990 industrial restructuring and the financial crisis begun in 2007. Privatizing some mammoths industrial units proved a very difficult process, but it was especially the deindustrialization of some small and middle towns that delayed and complicated the functional restructuring of towns. The transition from the pre-1989 industrial town type (based on the one-industry pattern in many cases) to the early 21st century one, featuring well-represented services, proved to be complex and long-lasting for Romania, with social implications and high costs.

The post-communist evolution of town functions (see the active population structure in the 1992, 2002 and 2011 census data) reveals significant disparities in the town functional profile in terms of demographic size and place within the territorial urban structures.

The interval between 1992 and 2011 witnessed a shift in the town functional profile, from industrial to services and mix; with industry collapsing, from 189 industrial towns (1992) only 29 remained in 2011, the number of services towns rising from 14 to 146 within the same interval. The highest secondary sector percentages had some one-industry towns (over 60% of the employed population). High secondary sector percentages (over 70%) were registered in Bucharest and in the small towns falling into its Metropolitan Area, county-seats and tourist towns. While in 1992, only two large-demographic county-seats had below 50% industrial population, the industrial workforce of all the 41 county-seats was below that percentage in 2011.

Although at the beginning of the transition period it was mostly the large-size demographic towns that had been severely affected by the high proportion of lay-offs, their economy could recover. Firstly, because large-size cities also implied big selling markets, hence good opportunities for expanding the services sector previously ignored by socialist-based development, services proving to be an alternative to developing and re-balancing the urban economies. Secondly, the administrative functions of large cities and their position within the regional settlement systems, as well as the concentration of transport, research-development, and high-grade services, attracted foreign investment more than other categories of towns did. Thirdly, the educational and professional level of their workforce was an asset for accelerating entrepreneurial initiatives, the emergence of new private economic actors, the development of innovation in the organization of companies and their strategies (Popescu C., 2014; Ministerul

Economiei, Comerțului și Mediului de Afaceri, 2010).

The process of industrial restructuring produced severest effects for the industry-governed small and middle towns. Limited development alternative opportunities, attracting few people, contributed to the higher inactivity rate, producing chronic unemployment. The local economic milieu of some industrial towns started degrading, while in others, the primary sector underwent a steep economic decline, generating structural imbalances. Recent studies have been warning against the tendency of labour turning agrarian and of small towns acquiring a rural character. The effects proved particularly severe for one-industry towns, or for towns hosting mammoth enterprises, artificially planted during the socialist period, and which failed to develop new activities capable of employing the remittent workforce. Large cities, which expanded, were among the winners of transition (Benedek, 2005; Ministerul Dezvoltării Regionale și Administrației Publice, 2015). At the other end of the spectrum stood the small and middle towns, the centres of a declining processing industry, mining towns and county-seats with an artificially increased population after 1968. As a result, many urban centres experienced a socio-economic downfall, a situation that reduced their role in the development of neighbouring areas. Social problems would crop up (both in the towns themselves and in some intra-urban areas), affecting a declining and aged population dependent on social assistance.

Whatever the available data and the analyses method used, the findings have revealed a constant change in the post-war functional profile of towns from the pre-war services-industrial and agrarian-services types, late industrialisation

producing a preponderantly industry-governed town (specialised or diversified), mixt (industry-services, industry-agrarian) and quite seldom a services town type (specialised or services-agrarian). The functional destructuring of towns, caused by the post-1989 economic and urban crisis, brings up into discussion the future urban functional model based on the gradual emergence of the future services town.

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