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THE URBAN BUBBLE PROCESS IN SPAIN: AN INTERPRETATION FROM THE THEORY OF THE CIRCUITS OF CAPITAL

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Abstract: Urbanization in Spain has advanced rapidly in the last twenty years or so. The phenomenon was particularly pronounced in the period spanning 1990-2007, when the construction of housing on a mass scale was a clear indicator of the second circuit of capital accumulation, with space playing a key role through the work of David Harvey. This led to a property bubble – one of the defining features of the economic and financial crisis in Spain between 2008 and 2013. In this contribution to the subject, we analyse the factors that triggered unchecked speculative urban growth in the context of the financialization of land. In tandem, our conclusions present the new resulting urban and metropolitan map of Spain, which is now characterized by uneven levels of occupancy among regions.

Key Words: *circuits of capital accumulation, metropolitan areas, polycentric urban system, urban sprawl, Spain.*

Introduction

Urbanization means demographic growth, economic concentration, a particular way of life, and the artificialization of land – a process that entails removing soil, leveling, parceling and urbanizing. This process is of interest because it allows for an analysis at different scales (Piñeira Mantiñán 2010). This is the reason why ever since the real estate bubble in Spain began showing alarming signs, and after it burst in 2008, numerous geographers have studied the phenomenon and analysed its impact on the worsening of our nation's economic-financial crisis (Bellet Sanfeliu 2007, Brandis García 2007, Burriel De Orueta 2008, Murray Mas and Blázquez Salom 2009, Ocaña Ocaña 2009, García 2010, Piñeira Mantiñán 2010, Romero 2010, Gómez Moreno 2011, Lois González and Piñeira Mantiñán 2011, Troitiño Vinuesa 2011, Rullán Salamanca 2012, Charnock et al. 2014).

Most studies involve regions where speculative urban growth was most intense (EEA 2010, Greenpeace 2010, Lois González and Piñeira Mantiñán 2011). Urban growth, in a process clearly described by classic authors (Harvey 1985, Marx 2000), has adjusted itself to the theory of the circuits of capital (Harvey 1985, Davies 1989, Rullán Salamanca 2012), by which excess capital in circulation is directed towards the secondary circuit of capital. Thus, the direct relationship between urbanization and the processes of capital accumulation is justified to the extent that if masses of fixed capital are mobilized for the construction of homes and large infrastructures, the advent of problems of excess capital are postponed. This explains the fact that while the construction sector in Spain made up 4.7% of GDP in 1997, ten years later this figure had risen to 9.3%, an increment which drove an unprecedented urban expansion financed by means of massive projects undertaken to satisfy a heterogeneous demand within the framework of an expanded concept of homeowners (Romero 2010, Rodríguez López and López Hernández 2010).

The real estate crisis in Spain has resulted in a general crisis. Extravagant land development and construction projects have ended up in default, bankruptcy or contraction of the companies. The urbanizing tsunami (Gaja i Diaz 2008) has destroyed the traditional system of savings and loan

associations which were directly involved in the speculative financing of residential urbanization (Rullán Salamanca 2012). Consequently, the previous ease with which credit could be obtained has turned into strict restrictions, a noticeable increase in defaults, and a dramatic increase in the number of foreclosures.

In view of these factors, we might speak of a Spanish singularity within the global economic crisis emerged in 2008. A large part of the crisis in Spain emanated from the property sector: the collapse of a part of the financial system dragged down by the failing construction businesses; the thousands of families unable to keep up with their mortgage payments; rising unemployment, particularly among unqualified young people of working age previously employed in the public and private construction trades; the proliferation of vacant plots of land, and so on. In fact, the unique features of urbanization in Spain (Muñoz 2003, Méndez Gutiérrez 2013, Charnock et al. 2014) have afforded the crisis a distinctly property and mortgage-based slant: similar in some ways to what unfolded in the United States and Ireland (Aalbers 2009), but differing substantially from other examples of the crisis closer to home, such as France, Portugal and Italy. As it happens, and as indicated in a number of recent studies, innovation and creation does not feature heavily in the economic structure of most Spanish cities (Sánchez-Moral et al. 2014) and there are major differences in their production bases and in the structure of local job markets.

The extended crisis has developed into a model analysed in depth. This is the reason why this article investigates the subject. It does so, however, following the theoretical approximation formulated by D. Harvey (1985). This article seeks to systemize the underlying causes of the property crisis in Spain since 2008. This characterization will then allow for comparisons to be made on an international scale. Secondly, we will attempt to verify whether theories on the subject of capital circuits remain relevant today. A third objective is to review the most significant literature on the Spanish case so as to provide an up-to-date report on the state of play in relation to the issue. Lastly, we will show a direct correlation between the speculative land development process and the new territorial lay-out of the current urban and metropolitan system in Spain.

Methodology

The secondary circuit of capital accumulation and the territorial dimension of late capitalism

Harvey, following Marx, refers to the existence of three circuits of capital accumulation (Harvey 1982). The basis of the circuit of accumulation is constituted by the primary circuit of capital: the production of surplus value and its interrelation with the consumption of merchandize allowing capitalists to obtain surplus value, while consumption allows for the reproduction of the work force. As a result of their labour, workers also accumulate savings. The financial system captures the capitalists' surpluses and savings, and then transforms these into new financial products which allow a reinvestment in different capital circuits (primary, secondary and/or tertiary). Consequently, it can be stated that the dynamics of accumulation of the capitalist system consists of the reinvestment of surplus capital because, otherwise, the logic of accumulation ceases to function.

From Harvey's point of view (2008), the politics of capitalism are shaped by the need to find profitable terrains for capital-surplus production and absorption. Within this need, the capitalist faces a number of barriers to continuous and trouble-free expansion: labour and wages, means of production, natural resources, purchasing power and profit rates (Harvey 2008). Secondly, capitalists must discover "new means of production in general and natural resources in particular" (Harvey 2008: 24). Thirdly, "if there is not enough purchasing power, then new markets must be found by expanding foreign trade, promoting novel products and lifestyles, creating new credit instruments, and debt-financing state and private expenditures" (Harvey 2008: 24). If the profit rate is too low, the solution is found through state regulation, monopolization and capital exports. When these barriers cannot be circumvented, capitalists are unable to reinvest their surplus product profitably, and capital accumulation is thus blocked (Harvey 2008).

This is the reason why this model reflects a tendency to generate crises of overaccumulation. When difficulties exist for investing capital-surplus, the market becomes saturated, prices and profit rates decrease, while at the same time causing an excess of labour and an increase in the rate of exploitation of the labour force (Harvey 2008).

Nevertheless, profits can be reinvested into either the secondary or tertiary circuit of accumulation. The second circuit is composed of fixed capital and the consumption fund. Fixed capital is made up of the production of durable goods and the built environment (e.g., homes). The secondary circuit of capital is made up of capital which has been turned into fixed assets and the framework of the consumption fund (Harvey 1985). Its reason for existence is the extension of the accumulation cycle by investing surplus capital to obtain long-term benefits, thus delaying a systematic crisis. This circuit has two fundamental implications. In the first place, fixed capital is immobile. Secondly, the investment in the built environment implies the creation of a whole physical space for the purpose of production, circulation, interchange and consumption (Garcia 2010). This is where the circuits of capital create the space where the role of the city is situated within capitalism, becoming a mechanism of absorption of surplus capital (Vives Miró 2013). This is the phenomenon Harvey has called *spatio-temporal 'fix'*, and the basic idea is that the surplus of labour and capital derived from overaccumulation within a given territory can potentially "be absorbed by *(a)* temporal displacement through investment in long-term capital projects or social expenditures […], *(b)* spatial displacements through opening up new markets, new production capacities, and new resource, social and labour possibilities elsewhere, or *(c)* some combination of *(a)* and *(b)*" (Harvey 2004: 64).

Finally, to complete the circulation of general capital, one must keep in mind that the reinvestment of surpluses can also be absorbed by the tertiary circuit of capital. This includes investments in science and technology and the social costs having to do mainly with the processes of the reproduction of the labour force.

The process in which capital changes from the productive circuit to the production of the built environment or the tertiary circuit with the purpose of delaying the emergence of the crisis of overaccumulation has been called *capital switching* (Harvey 1982). In other words, when problems of overaccumulation begin to appear within the productive sphere, investment is substantially "switched" toward the built environment (Christophers 2011).

This switching of capital towards the built environment is facilitated by a series of institutions, particularly the credit system and the State (Smith 1984). On the one hand, investment in the built environment has been linked to the economy's financialization, a process consisting in the "articulation of rent by means more related to finance than to wages, and the articulation of the economy by means of valuations that are more related to money than to production" (Rodríguez López and López Hernández 2010). On the other hand, the State boosts capital switching towards a built environment, which in the phase of late capitalism appears as a new type of urban governance (González 2007). The goal is the production of urban space coherent with processes of economic restructuring, while configuring territorial expression by means of policies directed fundamentally towards urban promotion and the development of the real estate market, something known as *boosterism*: the promotion of the image created of cities calling for investors of interurban competitiveness (González 2007). Private agents and urban elites incorporate themselves into this political role of the neoliberal city. While on the same subject, please note that the expression *late capitalism* stems from the term first popularized by E. Mandel (1975), as used many years later by F. Jameson (1991) and then incorporated into the critical social theory that has recently sprung up in Spain.

Spain, during the late capitalist stage, as it was the case with other European countries, opted for the spatial solution of specializing its economy in the secondary circuit (Rodríguez López and

López Hernández 2010), giving way to a model of urban development based on financial and real estate speculation. Nevertheless, Spain's model (Fig. 1) would become unique because the expansion of credit was the basis for the switch of capital towards the built environment. Financialization thus affected the dynamics of expansion of the secondary circuit (Coq-Huelva 2013). Low interest rates provided excellent conditions for the purchase of real estate and for the construction projects and urban developments. Tax legislation also favoured home ownership over renting. Laws favoured deregulation of land for building development, supposedly for lowering costs, although the effects were exactly the opposite since deregulation brought about an increase in land prices.

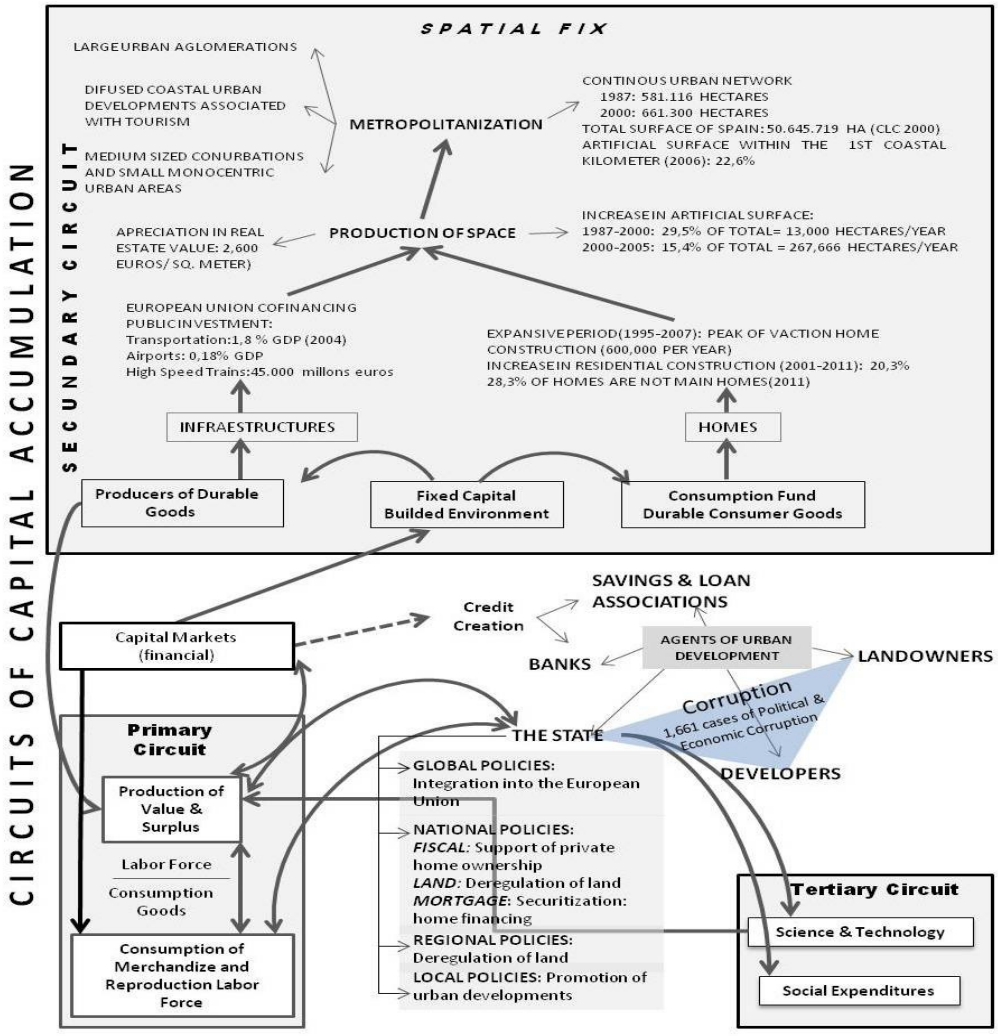


Fig. 1 – **The circuits of capital and their incidence on Spain's urbanization process**
Source: Elaborated by the authors based on Harvey (1982)

As discussed, the Spanish model has offered some distinctive feature. Thus, although the influx of international capital during the years of economic growth associated with the housing bubble was significantly increased (Deloitte 2014), empirical studies show that its direct presence in the real estate and construction companies was very limited (Sánchez 2003). In this regard, it is noted that when building companies operate on a local or regional scale, they need to be considered as something close or national in most cases (Sánchez 2003).

Within this context (2006), 18 000 new homes were built for every million inhabitants, as opposed to the 5000 average of the European Union. At the start of the crisis (2008), there were in Spain 544 homes per one thousand inhabitants, as opposed to 537 in Germany (Fernández-Tabales and Cruz 2013).

It can be said that the Spanish model was guided by the compass of profit which polarized the terrain into centres that attracted population, capital, resources, and areas for supply and for waste management, with its respective networks and staff. It was, furthermore, a model that supported an urban sprawl. It also homogenized construction typologies, abstracting itself from surrounding conditions and locally available materials (Naredo 2010). In conclusion, it was a quick and uncontrolled model of development that transformed existing urban realities, favouring processes of metropolization that completely modified the landscape. Since then, new home construction has fallen to less than 10% of the total recorded in 2006 during the height of the building boom. The number of transactions fell 53.6% between 2007 and 2010, a percentage surpassed only by Ireland (-68.21%) (Dol and Haffner 2010).

Staying with the Spanish experience, a number of recent theoretical contributions to the subject have improved our understanding of the property bubble phenomenon and the resulting economic and financial crisis. Brenner et al. (2010) have developed a framework for interpreting the recent dimensions of the regulatory restructuring process within a context of tensions between neoliberalism and state control of economic activity. In fact, we ourselves have tied neoliberalism to deregulation, even though the differences between both terms have been spelled out recently (Aalbers 2015). In the case of Spain, both conservative and social democratic governments continued to champion the deregulation of land use from the end on the 1980s onward. It was believed that construction stimulated GDP growth and that the oversupply of housing would help lower prices. As already pointed out, property investment captured the minds of thousands upon thousands of people, as it was seen as a means of combining a tangible and unmovable asset with a fixed location with very high estimated returns (often overvalued) (Gotham 2006).

Results

The Peculiarities of Spain's Accumulation Model: the artificialization of land through real estate speculation and major public projects

Since 2008, Spain has been suffering from two overlapping crises: the one derived from the bursting of the real estate bubble, and the one generated by the international economic-financial crisis. According to Evans (2011), the depression was the result of two main factors: 1) the collapse of business credit, when the euro zone depended especially on international trade; 2) the problems faced by the banking sector, which brought about the collapse of credit for non-financial corporations due to the serious problems faced by the banking system. We must recall that it was this same banking system which played a leading role in financing the expansive cycle and the creation of liquidity necessary for the increase in housing prices (Rodríguez López and López Hernández 2010).

The burst of the real estate bubble brought to light the processes of land financing and its conversion into financial assets (particularly by way of mortgages), as well as the appearance of new ways of appropriating urban rent which ended up transforming the relationship between land

agents. Confronted with this situation, the government enacted new fiscal programs. Unfortunately, economic recovery would require severe government spending cuts and a new growth model of territorial planning. We cannot forget that prior administrations had vested interests to increase property prices as much as possible, thus triggering the effects of the "economy of growth" and employment in the real estate sector, as well as the "effects of wealth" that was behind a skyrocketing consumer demand and growth of the economy as a whole (Rodríguez López and López Hernández 2010).

Looking back in time, we can see that the roots for Spain's growth model were the modernization programs set up during the Franco regime at the end of the 1950s. Franco wanted growth and thus invested in industrial facilities and equipment and also in bolstering mass tourism. Tourism also gave a boost to the building sector which had been suffering from a tendency towards hypertrophy (Romero 2010). Large public work projects were launched. Under the slogan "we want a nation of homeowners, not proletarians", the virus of speculation was starting to set in. Construction companies became consolidated, some of them giving way to large land development firms whose directors would become members of the boards of savings and loan associations (and certain banks) and who, during the dictatorship years, were able to infiltrate themselves into local government to promote their own interests (Pareja Eastaway and San Martin Varo 2002).

Following its entry into the European Union, Spain became part of the continent's southern periphery, thus strengthening the dynamics of expansive growth and land artificialization. All the Southern European countries received considerable amounts of funds for improving infrastructures, building new facilities, restoring old cities and industrial areas. European funds were used for the construction of thousands of non-residential buildings and all types of roadways. All this occurred at a time when grants were not strictly monitored. Spain's integration into a united Europe also had the effect of bringing about an increase in the number of tourists and European residents along the coast. The expectations generated by this process encouraged the urbanization of new areas and the restoration of many towns. Net investment in real estate increased from 150 billion pesetas in 1985 to more than 300 billion in 1989 (Rodríguez López and López Hernández 2010). This social support of the urbanization model was the result of the belief that the purchase of real estate was the best possible investment, safer than bank deposits or investing in the stock market.

The decade of the 1980s was thus marked by an unprecedented economic specialization, giving way to the first Spanish cycle of the so-called Keynesianism of Asset Prices (Rodríguez López and López Hernández 2010). It was a decade characterized by the appreciation in value of financial assets and real estate and by the rise in homeownership – which increased from 63% in 1971 to 73% in 1981. It generated a new spatial fix in which the winners where those who maintained a privileged position with respect to the new regimen of accumulation based on tourism, finance and the real estate market (Rodríguez López and López Hernández 2010). Nevertheless, the decade of the 1990s would start off with a crisis, due mainly to the low competitiveness of the Spanish economy within the global market. The nation's products were becoming more expensive and the trade deficit was already 6% of GDP. This lack of competitiveness was due to an overvaluation of the peseta, high interest rates and the uncontrolled use of public funds for the creation of public employment. The overvalue of the stock market ended up in a crash which was accompanied in 1990 by a sudden halt in the rise of property prices (Rodríguez López and López Hernández 2010). I would take until 1995 for Spain's economy to enter once again into a growth cycle, a cycle lasting until 2007.

During this new period of economic growth (1995 to 2007), known as the era of *España va bien* (Spain is doing well), the construction sector – an influential lobby composed of land owners, real estate developers, banks and savings and loan associations (Rullán Salamanca 2012) – created a comparative advantage on an international level in the real estate and tourist sectors due to the dual function of public investment in infrastructures: 1) it was a way of transferring capital to the

construction sector, which absorbed workers; 2) it served as an anticyclical mechanism. According to data from the *Plan Estratégico de Infraestructuras y Transportes* (Strategic Infrastructure and Transportation Plan) of 2004, Spain became one of the European Union countries with the highest percentage of GDP invested in the construction of new highways (1.7 to 1.8% in 2004, when the E.U. average was 0.85 to 1%) (OECD 2011).

In geographical terms, the artificialization of land was the engine of economic progress and also a valuable generator of employment. Few had the courage to voice concerns over the uncontrolled building expansion and its subsequent impact on the landscape and the environment (AGE and Colegio de Geógrafos 2006, Greenpeace 2010), and their voices were quelled due to a continuous increase in GDP of approximate 4% and the creation of seven million new jobs.

But in 2008 this model collapsed, and no alternative sectors for future economic progress have yet been found. We ask ourselves if the theory of the circuits of capital can explain this crisis, since the theory has associated this type of event to a depressive period following the model of the second phase accumulation (Harvey 1985, Davies 1989, Rullán Salamanca 2012). It is no coincidence that the European countries most specialized in the secondary circuit are also those suffering most from the current crisis (Férnández Durán 2006). It is evident, therefore, that Spain's productive system must search for cutting-edge sectors to bring about short term as well as long term growth, possibly by resorting to a new phase of capital accumulation and reinvestment.

The agents of urban space production

It is possible to do a quick review of the main players in Spain's urbanization process during the last twenty-five years. The classical groupings which have been elaborated at an international level are quite interesting (Capel Sáez 1983). The first group is made up of landowners who attempted to obtain the maximum profit on their lots by getting city councils to rezone them for development. On many occasions, developers purchased large tracts of land to put greater pressure on local governments and to negotiate with them from a more advantageous position. This has been one of the determining factors for analysing the increase in political corruption at the local level.

During the period leading up to 2008, developers benefited from easy financing. From the mid-1990s onward, following recommendations from the different administrations that governed Spain (Rullán Salamanca 2012), credit flowed toward the real estate sector. Construction was done under favourable conditions, and vast profits resulted from elevated prices. During this period, capital was directed towards urbanization, benefitting a multitude of construction firms of different sizes.

Another fundamental player was the financial system that backed the promotion, construction and financing of housing as part of a business they controlled from start to finish. Land prices increased across the country and so did the profits of developers and real estate firms. Housing prices rose higher every year, while the accounting books of the financial system showed profits in a virtuous circle of accumulation of capital and wealth which, nonetheless, hid the magnitude of a speculative bubble that would end up bursting in 2007-2008.

Regarding the active players in Spain's urbanization process, we must point out that the public sector was an accomplice in the process. Local governments promoted urbanization because they obtained copious profits from licenses and taxes. Regional governments supported developers in their quest for land deregulation under the rationale that urbanization generated employment and wealth. The national government was also at fault because starting in the mid-1990s it chose to couple Spain's economic growth model with the deregulation of land and the housing boom.

The production of homes

A turning point in Spain's urban development came about in 1985 when the *Decreto Boyer* (Boyer Decree) gave an impulse to the housing sector, which sustained itself throughout these years due to numerous incentives for home purchases: reduction of interest rates, easy access to credit, deregulation of the rental market, as well as tax breaks for home buyers. In 2001, as well as in 2011, homeownership represented 82.2% of the housing sector, almost ten percentage points higher than in 1981. This phenomenon continued in later years when the middle class became the target of developers, while home purchases by youngsters was encouraged with home-purchase savings accounts which offered higher interest rates than regular accounts, with the only requirement that a home be purchased within six years.

Other factors also stimulated the housing sector: 1) Spain had become one of Europe's main tourist destinations; 2) salaries were increasing and the population was developing a preference for living in new urban developments.

There are four variables allowing us to analyse this homebuilding boom: building permits, municipal licenses, new home construction, and volume of transactions (Fig. 2). These variables reveal different range levels for the period 2000-2013 (data for transactions is limited to 2004-2012):

- A tendency towards growth can be observed in all four variables until 2006. The outcome was a dramatic increase in the volume of new homes, reaching 2.5% in the period of 2001-2006 (Rullán Salamanca 2012), which resulted in an increase in the number of homes from 17.2 million in 1991 to 24.6 million in 2006. The provinces with the most intensive building activity were Madrid and Valencia, with more than 400 000 new homes, as well as many of the provinces along the coast and on the islands.

- As of 2006, the tendency for all these variables is negative and it continues this way till the present time. Some clarifications are nevertheless called for:

  a) In 2007, the decline in the number of municipal licenses was more moderate than that recorded for the other three variables (14% as opposed to 20-24%), indicating that although the crisis had already set in, there was still a desire to continue building new homes.

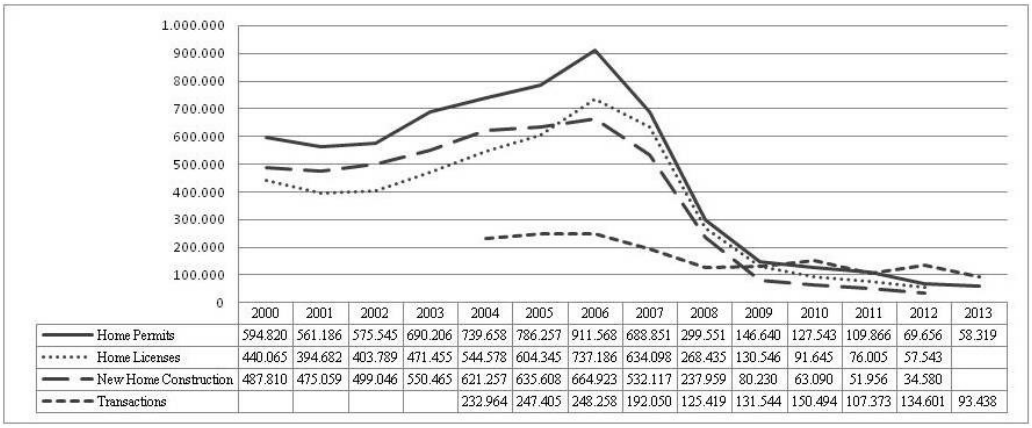
  b) By 2008, the decrease became more abrupt, with a reduction of approximately 55-57% in the number of permits, licenses and new homes. The decrease in the number of transactions was lower, at 34%, since at the time there was still a flow of capital because financial institutions had not yet moved toward the generalized credit freeze.

From 2004-2006, we can observe the large gap between new home construction and the number of transactions. While the number of new homes was 664 923, the number of transactions was only 248 258, meaning that for every transaction there were 2.7 new homes. As of 2009, there was a tendency for transactions to exceed the number of new homes due to the halt in the building sector, although there continued to be a considerable stock of new homes.

During this expansive period, real estate property became the most important asset of Spanish families. In 2006, real estate assets made up approximately 70% of total wealth. There were more than 500 homes for every 1000 inhabitants. Even regions which suffered a net loss of population such as Castile and Extremadura had an increase in the number of homes in the range of 20-25%. Although there certainly was a demand for first homes as a result of the transformation of the traditional family units and the arrival of immigrants, the need for a main home was not enough to justify the high level of properties on offer (Mata Olmo 2007), nor can it explain the housing bubble for residential markets.

According to the 2001 Housing Census, of the 20 946 554 homes existing in Spain, 67.7%

were first homes, 17.4% were second homes, and 14.8% remained empty. During the following decade, the number of homes reached 25.2 million, almost 4.3 million more than in 2001.



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Home Permits	594.820	561.186	575.545	690.206	739.658	786.257	911.568	688.851	299.551	146.640	127.543	109.866	69.656	58.319
Home Licenses	440.065	394.682	403.789	471.455	544.578	604.345	737.186	634.098	268.435	130.546	91.645	76.005	57.543	
New Home Construction	487.810	475.059	499.046	550.465	621.257	635.608	664.923	532.117	237.959	80.230	63.090	51.956	34.580	
Transactions					232.964	247.405	248.258	192.050	125.419	131.544	150.494	107.373	134.601	93.438

Fig. 2 – **Evolution of new home construction (permits, licenses and transactions)**
Source: Ministry of Public Works, Spain

The building boom was accompanied by a rise in home prices of approximately 12% between 1997 and 2007 until an average of 2.085 euros/m^2 in this last date. According to data from the Ministry of Public Works, in Madrid, Barcelona, Biscay and Gipuzkoa home prices surpassed 2600 euros per square meter.

The bursting of the property bubble resulted in the collapse of credit, the contraction of the building sector (664 923 new homes were built in 2006, but only 34 580 in 2012, with a decrease of 94.8%), a reduction in home sales (which fell 49.4% between 2006 and 2008), and an unemployment rate of 25.93% (National Statistics Institute 2014). By December 2012, there was a stock of 583 453 unsold homes. Although prices had fallen 23.6% from their 2008 peak, they were still high (1466.90 euros per square meter), making it difficult to purchase a home, especially due to the severe credit crunch. Mortgages represent 76.77% of total home debt, and many of these mortgages surpass a home's value because during the boom period banks overvalued housing prices by approximately 30%. The deficit generated from 1997 to 2007 was thus transferred from the State to the population.

We can conclude, therefore, that Spain's growth model and its "wealth effect" resulted in a 7% annual increase in private spending between 2000 and 2007, compared to 4.9% for the United Kingdom, 4% for France and Italy, and 1.8% for Germany. It also resulted in the employment of seven million people. The employment generated by the building sector (with a remarkable increase in the unqualified personnel) and the increase in consumption resulted in a growth rate of 36%.

The increase in artificial surface

As a result of this model of economic growth (based on sectors of intensive land use), the consolidation of urban sprawl and heavy investment in infrastructures, the number of artificialized spaces in Spain has grown dramatically since 1985. Of the 50 645 719 hectares which make up Spain's surface, 1.6% consisted of artificialized spaces in 1987. Data offered by the CORINE Land Cover project show that between 1987 and 2000 artificialized surface increased 29.5%, representing an annual increase of 13 000 hectares, while between 2000-2005 this rate was 15.4%, representing an annual increase of 27 666 hectares. These figures place Spain (along with

Ireland and Portugal) among the countries where artificialized surfaces have increased the most, with an annual rate of 1.9%. The regions with the highest percentage of land artificialization are Madrid (13.7%), the Canary Islands (6.5%), and the Balearic Islands (6.4%).

Urban networks and infrastructures form the bulk of artificial surface. Urban networks increased from 581 116 hectares in 1987 to 661 300 in 2000. It is interesting to look at the evolution of the discontinuous urban network. In 1987 it was much smaller than the continuous urban network (253 512 hectares versus 327 604 hectares); while in 2000 it was approximately equal to its total value (320 418 hectares versus 340 882 hectares). Nevertheless, it was not only housing which caused land artificialization, the construction of infrastructures also had an effect, having increased by 149%; as well as the proliferation of sports and recreational facilities (134%), construction sites (115%), and industrial or commercial areas (59%).

In later years, specifically between 2000 and 2005, the uses which represent the greatest level of land artificialization have coincided. Urban networks continued to be the main protagonists, although those of a discontinuous character were the ones which grew the most, registering an increase of 9%; while the compact ones only increased 3%. Roads, railways and related grounds increased 166%, and construction sites increased 173%.

Finally, we must point out that the artificialization of coastal areas became evident during this period. On a national level, the artificialized surface of the first kilometre coastal strip represents 22.6% of total surface. It has grown 8% within one kilometre of the coast, and 11 % within 10 kilometres. According to data furnished by the Ministry of Agriculture, Food and Environment, the coastal region most affected is that of Valencia, with 42.9% of artificialized surface within one kilometre of the coast, and 15.2% within 10 kilometres; followed by Cataluña with 41.7% and 17.9%.

Discussion

The new territorial model of urban dominance in Spain

As we have shown above, the vast majority of Spanish cities have been affected by the processes of urban expansion, processes which have determined the appearance of a new territorial model. This model has been thoroughly studied by Bruekner (2000), having evaluated the effects of urban sprawl and the possible solutions to its impact, and also by Salet et al. (2003), who have centred their studies on the decisions taken in metropolitan areas and the coordination of spatial policies in European urban regions.

Within this model, the traditional cities have seen their immediate peripheries occupied by new residential and commercial complexes, thus acquiring an ever greater prominence (Ortega Delgado 2003). The concept of the traditional city diminishes and a new metropolitan reality develops which we can define as a “city of cities”; in other words, an urban system in which each urban centre plays a role.

Although each new urban reality responds to a different territorial logic, we can see that they are all supported by transportation networks (Brandis García 2007). During the last thirty years we have seen how peripheries have been transformed, how rural uses have been substituted for new ones. This is a dynamic that brings about the formal and functional homogenization among these areas of metropolitan expansion based on the localization of the characteristic uses of a dispersed urbanization. The low density urban model has been questioned for its efficiency and economic sustainability because it poses a greater economic load by increasing public expenses in the provision of networks and services to residents (Nel.lo 2004). The urban expansion across low density areas is combined with the development of compact satellite towns of varying sizes or even groups of high rises in the peripheries.

We should point out that the metropolization process has affected not only large cities, but mid-sized cities as well (Fig. 3). As a result, within Spain's current urban system we can distinguish between:

- Large urban agglomerations/metropolitan areas such as Madrid, Barcelona, Valencia, Seville, Bilbao or Zaragoza, all of which have been conditioned to a greater or lesser extent by centrifugal movements of population towards municipalities around the metropolitan ring during the period between 1981-1991. This tendency continued during the period between 2001 and 2006 while the peripheral areas maintained the same degree of growth, although the central cities began recording positive values as a result of immigration. It is revealing to look at the evolution of density recorded for these spaces during the period 1991-2001, when Madrid's peripheral municipalities recorded a growth of approximately 30%, while the central city recorded a decrease of over 10%. During the 2001-2006 period, the whole space maintained positive values.

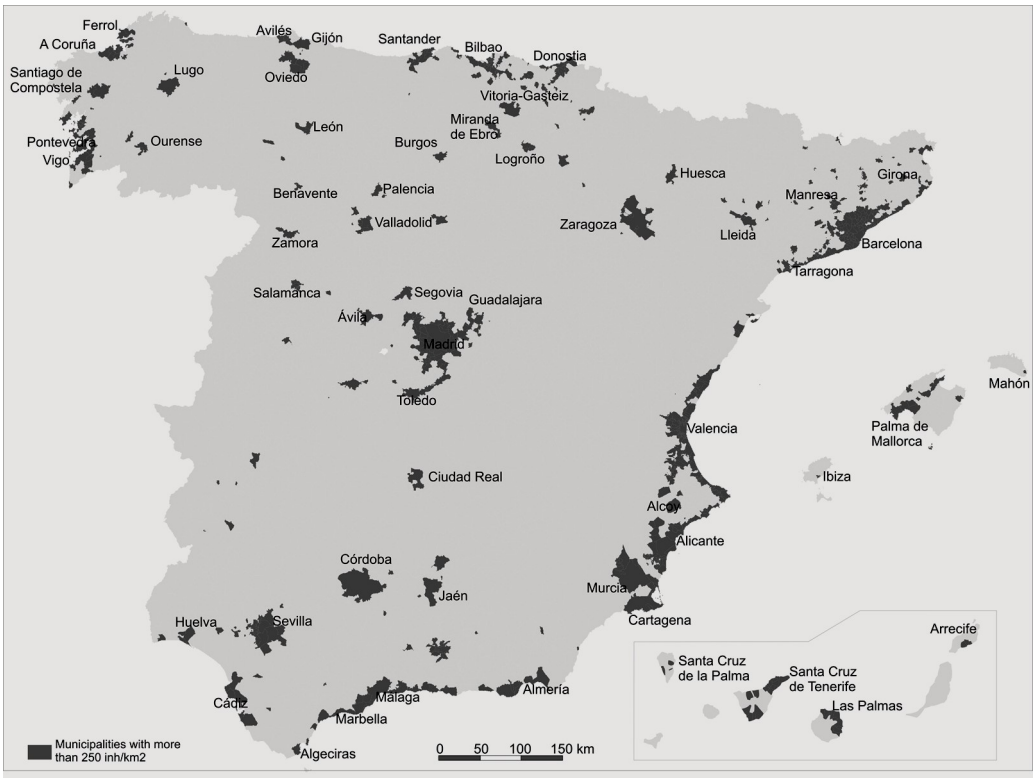


Fig. 3 **– Metropolization processes of Spain's main cities**
Source: Elaborated by the authors based on data from the 2011 Population Census (National Statistics Institute, Spain).

- Wide-spread coastal touristic developments which first attracted a large workforce and later attracted tourists and both Spanish and foreign residents. We can differentiate sectors with demographic increases of approximately 3% annually or higher, and densities of 500-1000 inhabitants per square meter in areas between Malaga-Marbella; the sector from Cartagena to Castellon which includes Murcia, Valencia and Alicante; as well as the north-eastern sector of Tarragona-Barcelona-Girona.

- Conurbations, e.g., spaces in which the growth of several urban areas have brought about the merging of their peripheries, giving way to a continuous urban area in which each centre maintains its independence and individuality (Zoido et al. 2013). Clear examples are those formed by Gijon, Oviedo and Aviles; Tarragona-Reus, and Vigo-Pontevedra, among others.

- Medium and small monocentric urban areas that coincide with the capitals of provinces or regions, which record positive population growth and maintain the classic city-region relationships (Calvo Palacios and Pueyo Campos 2008). Urban sprawl has also left its traces on these areas. Along the peripheries of cities, we find numerous urban developments of townhouses, which, in some cases, remain unsold because they were not the product of a realistic housing demand.

We can therefore state that during the last twenty-five years we have witnessed a generalization of the metropolization processes which have affected practically all Spanish cities and urban areas, although the degree of intensity was in line with the size of the central city. Thus, while large urban agglomerations recorded demographic and housing volume increases which reached second or third peripheral rings; in small cities the process was limited to the nearest municipalities. Finally, we should mention that along the coastal areas these urban expansion processes have contributed to the appearance of coastal conurbations where the classic cities are juxtaposed with their peripheries and the new residential areas which were built primarily for touristic purposes.

Conclusions

In this article, we have described the repercussions that the neoliberal model has had on the development of Spain's cities and urban areas. With this objective in mind, we began by elaborating a theoretical description of the long waves of capitalist development, focusing our attention on the fourth wave, commonly denominated *late capitalism*. Spain's boom and subsequent bursting of the housing bubble for residential markets took place within this fourth wave, following step by step the descriptions of authors such as Marx and Harvey of the secondary circuit of accumulation. This article's whole analysis and its concrete descriptions are based on an analysis providing a perfect explanation for the events that occurred in Spain during the last decades.

We have observed how the economic growth phase that started in Spain in the 1980s favoured the investment of excess capital in the secondary circuit, which was led by the building sector. The data we analysed has allowed us to show how the rule of the markets prevailed over the concept of territorial and urban planning based on cost/benefits and the rate of return invested capital. The main beneficiaries were financial institutions, contractors, developers and public administrations.

The crisis, however, exposed the weak links in this economic model. We can speak of an urban development crisis and a deregulation of urban growth because town and country planning fell into the hands of private agents whose prime objective was the personal profit. Although the public administrations continued hiring the services of specialists to elaborate their planning documents, unfortunately these documents – instead of regulating the indiscriminate artificialization of land – were often used for the opposite purpose. From the current perspective, we can state that in many cases real estate developers were the ones who really guided the growth of our urban areas. Along with real estate developers, we find a coalition of interests which includes landowners, financial institutions, and construction companies. This sort of venture led to the overassessment of land values. The price of land was not the real price but the price which could be obtained in the future if the land were to be rezoned (Rullán Salamanca 2012). According to various analysts, current land prices are barely 14% of the value at which they were assessed during the expansive phase.

Meanwhile, a hidden financial crisis was developing, a crisis in which banks were selling risky investment products offering quick profits, while at the same time, banks and savings and loan associations alike were approving mortgages through fraudulent practices. After the start of the crisis, many homeowners who had purchased their homes during the bubble phase began having difficulties paying for them, or simply defaulted. Those same products, previously considered to be a source of wealth by individuals and banks alike, have become a severe problem resulting in foreclosures, thousands of unsold homes, unfinished buildings, urbanized areas left unoccupied. The secondary circuit of capitalist accumulation has turned the financial products of the expansion phase into toxic assets which holders wish to dispose of as soon as possible.

References

AALBERS M. (2009), *Geographies of the financial crisis*, Area 41 (1), 34-42.

AALBERS M. B. (2015), *The Great Moderation, the Great Excess and the Global Housing Crisis*, International Journal of Housing Policy 15 (1), 43-60.

AGE, COLEGIO DE GEÓGRAFOS (2006), *Manifiesto por una nueva cultura del territorio*, AGE & Colegio de Geógrafos, Madrid.

BELLET SANFELIU C. (2007), *Los nuevos espacios residenciales: estructura y paisaje,* in: Delgado C. (ed.), Espacios públicos, espacios privados: un debate sobre el territorio, AGE, Bilbao, pp. 93-130.

BRENNER N., PECK J., THEODORE N. (2010), *After Neoliberalization?,* Globalizations 10 (3), 327-345.

BRANDIS GARCÍA D. (2007), *Los espacios residenciales españoles en el cambio de siglo,* in: Delgado C. (ed.), Espacios públicos, espacios privados: un debate sobre el territorio, AGE, Bilbao, 25-53.

BRUECKNER J. K. (2000), *Urban Sprawl: Diagnosis and Remedies*, International Regional Science Review 23 (2), 160-171.

BURRIEL DE ORUETA E. L. (2008), *La década "prodigiosa" del urbanismo español (1997-2006)*, Scripta Nova 12 (270), 64.

CALVO PALACIOS J. L., PUEYO CAMPOS Á. (eds.) (2008), *Atlas Nacional de España: Demografía*, Centro Nacional de Información Geográfica, Madrid.

CAPEL SÁEZ H. (1983), *Capitalismo y morfología urbana en España*, Los libros de la Frontera, Barcelona.

CHARNOCK G., PURCELL T., RIBERA-FUMAZ R. (2014), *The limits to capital in Spain. Crisis and Revolt in the European South,* Palgrave-Macmillan, Hampshire.

CHRISTOPHERS B. (2011), *Revisiting the urbanization of capital*, Annals of the Association of American Geographers 101 (6), 1347-1364.

COQ-HUELVA D. (2013), *Urbanisation and Financialisation in the Context of a State Rescaling: The Case of Spain*, Antipode 45 (5), 1213-1231.

DAVIES W. K. D. (1989), *Towards a Conceptual Integration of the Urban Systems Literature*, in: Bourne L., Sinclair R., Ferrer M., D´Entremont A. (eds.), The Changing Geography of Urban Systems, Pamplona, Navarra, pp. 61-86.

DELOITTE (2014), *La Inversión Extranjera en España y su contribución socio-económica*, Deloitte, Madrid.

DOL K., HAFFNER M. (2010), *Housing statistics in the European Union*, Ministry of the Interior and Kingdom Relations, Hague.

EEA (2010), *The European environment – state and Outlook 2010: synthesis*, Publications Office of the European Union, Copenhagen.

EVANS T. (2011), *La crisis de la Zona Euro*, Boletín Internacional de la Investigación Sindical 3 (1), 105-123.

FÉRNÁNDEZ DURÁN R. (2006), *El tsunami urbanizador español y mundial*, Boletín CF+S 38/39, Retrieved from: http://habitat.aq.upm.es/boletin/n38/arfer.html.

FERNÁNDEZ-TABALES A., CRUZ E. (2013), *Análisis territorial del crecimiento y la crisis del sector de la construcción en España y la Comunidad Autónoma de Andalucía*, Eure 39 (116), 5-37.

GARCÍA M. (2010), *The Breakdown of the Spanish Urban Growth Model: Social and Territorial Effects of the Global Crisis*, International Journal of Urban and Regional Research 34 (4), 967-980.

GAJA I DIAZ F. (2008), *El "tsunami urbanizador" en el litoral mediterráneo. El ciclo de hiperproducción inmobiliaria 1996-2006,* Scripta Nova 12 (270), 66.

GÓMEZ MORENO M. L. (2011), *Los procesos interactivos del tejido social como causa del urbanismo expansivo de la Costa del Sol,* in: Gozálvez Perez V., Marco Melina J. A. (eds.), Urbanismo expansive: de la utopía a la realidad, AEG, Madrid, pp. 307-319.

GONZÁLEZ S. (2007), *Trepando por la jerarquía urbana: nuevas formas de gobernanza neoliberal en Europa*, UOC Papers 5, 6-12.

GOTHAM K. F. (2006), *The Secondary Circuit of Capital Reconsidered: Globalization and the U.S. Real Estate Sector,* American Journal of Sociology 112 (1), 231-275.

GREENPEACE (2010), *Destrucción a toda costa 2010. Informe de Greenpace sobre la situación del litoral español*, Greenpeace España, Madrid.

HARVEY D. (1982), *The limits to capital*, Basil Blackwell, Oxford.

HARVEY D. (1985), *The Urbanization of Capital: Studies in the History and Theory of Capitalist Urbanization*, The Johns Hopkins University Press, Baltimore.

Harvey D. (2004), The '*new*' *imperialism: accumulation by dispossession*, Socialist Register 40, 63-87.

HARVEY D. (2008), *The right to the city*, New Left Review 53, 23-40.

JAMESON F. (1991), *Postmodernism, or, The Cultural Logic of Late Capitalism,* Duke University Press, Durham.

LOIS GONZÁLEZ R.C., PIÑEIRA MANTIÑÁN M. J. (2011), *Urban development processes in Spain – from consolidated cities to urban regions with and overdensified housing market*, in: Mierzejewsa L., Wdowicka M. (eds.), Contemporary Problems of Urban and Regional Development, Bogucki, Poznan, pp. 61-71.

RODRÍGUEZ LÓPEZ E., LÓPEZ HERNÁNDEZ I. (2010), *Fin de ciclo. Financiarización, territorio y sociedad de propietarios en la onda larga del capitalismo hispano (1959-2010),* Traficantes de Sueños, Madrid.

MANDEL E. (1975), *Late capitalism*, NLB, London.

MARX K. (2000), *El Capital*, Akal, Madrid.

MATA OLMO R. (2007), *Auge inmobiliario y evolución de los usos del suelo en España. Por una nueva cultura del territorio*, Universidad Autónoma de Madrid, Madrid.

MÉNDEZ GUTIÉRREZ R. (2013), *Crisis económica, vulnerabilidad urbana y desempleo en España*, Ciudad y Territorio 178, 649-667.

MUÑOZ F. (2003), *Lock living: Urban sprawl in Mediterranean cities*, Cities 20 (6), 381-385.

MURRAY MAS I., BLÁZQUEZ SALOM M. (2009), *El dinero, la aguja del tejido de la globalización capitalista*, Boletín de la AGE 50, 43-80.

NAREDO J. M. (2010), *El modelo inmobiliario Español y sus consecuencias*, Boletín CF+S 40, Retrieved from: http://habitat.aq.upm.es/boletin/n44/ajnar.html.

NEL.LO O. (2004), *Contra la dispersión, intensidad. Contra la segregación, ciudad*, in: Farinós J., Romero J. (eds.), Ordenación del territorio y desarrollo territorial: el gobierno del territorio en Europa: tradiciones, contextos, culturas y nuevas visiones, Trea, Asturias, pp. 261-285.

OCAÑA OCAÑA M. C. (2009), *Urbanización y vivienda, negocio financiero y conflicto social*, in: Feria Toribio J. M., García García A., Ojeda Rivera J. F. (eds.), Territorios, sociedades y políticas, Sevilla, Universidad Pablo de Olavide, Sevilla, pp. 349-368.

OCDE (2011), *Trends in Transport Infrastructure Investment 1995-2009*, International Transport Forum, 1-6.

ORTEGA DELGADO M. (2002), *Las ciudades y los sistemas urbanos. Una visión transnacional*, Madrid, in: Asociación Interprofesional de Ordenación del Territorio FUNDICOT (ed.), Ordenación del territorio, política regional, medio ambiente y urbanismo, Gijón, Asturias, pp. 327-340.

PAREJA EASTAWAY M., SAN MARTÍN VARO I. (2002), *The tenure imbalance in Spain: the need for social housing policy*, Urban Studies 39 (2), 283-295.

PIÑEIRA MANTINÁN M. J. (2010), *Expansion and cusis in the neoliberal town planning process in Spain*, Rivista Semestrale di Studi I Ricerche di Geografia 22 (1), 53-70.

ROMERO J. (2010), *Construcción residencial y gobierno del territorio en España. De la burbuja especulativa a la recesión. Causas y consecuencias,* Cuadernos Geográficos 47 (2), 17-46.

RULLÁN SALAMANCA O. (2012), *Urbanismo expansivo en el Estado Español: de la utopía a la realidad,* in: Gozálvez Pérez V., Marco Molina J. A. (eds.), Geografía: retos ambientales y territoriales: conferencias, ponencias, relatorías, mesas redondas, AEG & Universidad de Alicante, Alicante, pp. 165-211.

SALET W. G. M., THORNLEY A., KREUKELS A. (2003), *Metropolitan Governance and Spatial Planning: Comparative Case Studies of European City-regions,* London, Routledge.

SÁNCHEZ J.-E. (2003), *El mercado inmobiliario y los promotores: cambios en la gran empresa inmobiliaria*, Scripta Nova 7 (146), 091.

SÁNCHEZ-MORAL S., MÉNDEZ R., ARELLANO A. (2014), *Creative economy and employment quality in large urban areas in Spain*, Urban Geography 35 (2), 264-289.

SMITH N. (1984), *Uneven Development: Nature, Capital and the Production of Space,* Basil Blackwell, New York.

TROITIÑO VINUESA M. A. (2011), *Territorio, patrimonio y paisaje: desafíos de una ordenación y gestión inteligentes*, Ciudad y Territorio 43 (169-170), 561-570.

VIVES MIRÓ S. (2013), *L'espai urbà del capitalisme. La construcción del projecte neoliberal de Palma*, Universitat de les Illes Balears, Palma.

ZOIDO F., LOIS R., DE LA VEGA S., PIÑEIRO A., MORALES G., MAS R., GONZÁLEZ J. (2013), *Diccionario de Geografía urbana, urbanismo y ordenación del territorio,* Cátedra, Madrid.

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DOES LOCATION AFFECT EMPLOYMENT? EVIDENCE FROM THE HIGH NORTH OF RUSSIA

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Abstract: Local labour markets within one country can be characterized by different outcomes because of their geographical and economic peculiarities. The unique features of the labour markets of the High North regions of Russia include compensative differentials and specific labour protection legislation together with the specific geographical characteristics. The aim of the paper is to investigate what peculiarities arise in employment as a result of location in the areas of the High North of Russia. Using aggregate regional data for the northern regions of Russia from 2005 to 2014 we estimated the dynamic fixed effects models for the number of employees and net migration. It was discovered that geographical characteristics affect employment in the High North of Russia more than wages. Labour supply exceeds labour demand in the northern regions of Russia because of strong positive wage elasticity of net migration. We can surmise that regulation of wages and migration should be a part of common economic policy in the High North regions of Russia.

Key Words: *regional labour markets, employment, labour demand, labour supply, the High North of Russia.*

Introduction

The impact of location on labour market outcomes is a relatively modern research problem of current interest. Evidence from Europe and the USA showed that the location of labour markets within one country should be taken into account in carrying out research into local labour market outcomes and when designing economic policy (David et al. 2010, Moretti 2011, Manning and Petrongolo 2011, Combes et al. 2012, Bratti and Leombruni 2014, Mocanu and Şerban 2015). In general, the development of economic activity is highly dependent on geographical position (Fujita et al. 1999). This is especially true for the large countries, which occupy large territories. The geography of the Russian Federation is such that climate, natural resources and other territorial characteristics vary significantly among the regions and determine the structure and development of the regional economy (Moe and Kryukov 2010, Zubarevich and Safronov 2011, Tatarkin and Loginov 2015). The regional economy is the basis for regional market outcomes, so we can assume that the location of the labour market affects employment, unemployment and wage distribution in the particular region. The aim of this paper is to investigate what peculiarities the location of the High North regions of Russia creates in employment in these areas.

There are no empirical studies on employment in the High North of Russia so far, but a number of works highlight the specific features of the labour markets of the northern territories of Russia or suggest their existence. We can distinguish the following main areas: theoretical models and empirical studies that describe the equilibrium level of the regional labour markets and the reasons for migration of employees between regions (Rosen 1979, Roback 1982, Blanchard and Katz 1992, Moretti 2011). Also, there are studies that identify certain areas of the country as the objects of analysis concerning certain characteristics (e.g., one-company towns): Berger et al. 2003, Bignebat 2006, World Bank 2010, Ammermueller et al. 2007, Caponi 2008, Commander et al. 2011, Giltman 2014, Semerikova and Demidova 2015. The

body of literature that contains the results of the research into the inter-regional differences in wages, including the compensative differentials, comprises the works of: Coelho and Ghali 1971, Greenwood et al. 1991, Bignebat 2003, Lukiyanova and Oshchepkov 2007, Oshchepkov 2010, Lukiyanova 2011, Oshchepkov 2015. A number of studies were devoted to the estimation of the impact of labour market institutions on labour market outcomes in Russian regions: Gimpelson et al. 2009, Mironenko 2012, Lehmann and Zaiceva 2013, Gimpelson and Kapeliushnikov 2014, Muravyev and Oshchepkov 2016.

Fig. 1 **– High North Regions of Russia**

Regions that are totally recognized as the High North of Russia: Republic of Karelia (2),Komi Republic (4), Sakha (Yakutia) Republic (8), Tuva Republic (7), Kamchatka Krai (11), Arkhangelsk Oblast (3), Magadan Oblast (10), Murmansk Oblast (1), Sakhalin Oblast (12), Yamalo-Nenets Autonomous Okrug (6), Khanty–Mansi Autonomous Okrug – Yugra (5), Chukotka Autonomous Okrug (9).

Regions that are partly recognized as the High North of Russia, so-called „equivalent areas". Population of the Northern part of these regions is usually statistically insignificant compared with the rest of the population of the region: Altai Republic (16), Republic of Buryatia (19), Zabaykalsky Krai (20), Krasnoyarsk Krai (17), Perm Krai (13), Primorsky Krai (23), Khabarovsk Krai (22), Amur Oblast (21), Irkutsk Oblast (18), Tomsk Oblast (15), Tyumen Oblast (14).

Source: http://www.gks.ru/bgd/regl/b08_22/IssWWW.exe/Stg/kart.htm,
with corrections made by the author as of January the 1st 2014

The High North of Russia is traditionally associated with an unfavourable climate, remoteness from the European part of the country and high wages, which should compensate for the uncomfortable living conditions. The High North regions of Russia occupy a huge area of the

country (Fig. 1) and they can be characterized by a 7% share of the population of Russia and about 16% of the Gross Domestic Product (Tatarkin and Loginov 2015). Most areas of the High

North have a strictly oriented economic specialization. Situated here are about 80% of the explored natural resources of Russia, of more than 60 types (Tatarkin and Loginov 2015). In value terms, the High North regions of Russia produce more than 50% of the product of the extractive industry of Russia. The High North regions of Russia are statutory defined. There are regions that are totally and regions that are partly recognized as the High North. This definition is necessary for the application of the system of benefits for employees in these areas. The mentioned system has remained in force since 1960.

One of the most important issues for the state regulation of employment conditions in the High North are the additional tools which were designed in order to increase wages in the North compared with the other regions of the country. At the same time, in spite of the multiple growth of the wages in the High North, the number of employees in the majority of cases has demonstrated a negative trend (Fig. 2). The wages in 2000-2014 in the High North were 1.6-2.3 times higher than the average national wage. Higher wages should compensate unfavorable living conditions in the High North. Thus, health and medical care are one of the most important issues in the northern regions of Russia (Hasnulin et al. 2016). These regions were in the lead in terms of morbidity per 1000 citizens – over the same period this indicator was about 1.2 times higher compared to the average value in Russia. Probably this is the reason of negative net migration from most of these areas (Fig. 3). The resident population in the High North and equivalent areas in 2000-2014 has decreased by more than 1 million people i.e. more than 9%. There is an impression that the harsh climatic conditions affect individual decisions about employment in the High North more than the ability to earn higher wages and receive other benefits for the employees in these areas such as earlier retirement and higher pensions provided for by the legislation.

Fig. 2 – **Dynamics of Wages and Employment in the High North of Russia**
Source: Federal State Statistics Service of the Russian Federation (Rosstat)

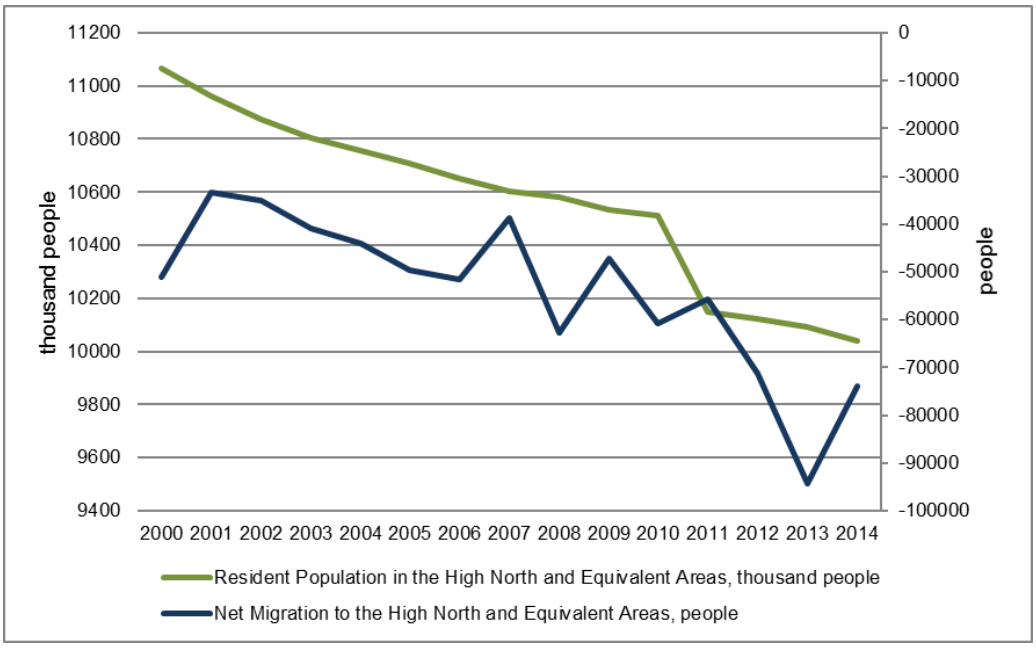

Fig. 3 – **Dynamics of the Resident Population and Net Migration in the High North of Russia**
Source: Federal State Statistics Service of the Russian Federation (Rosstat)

The declining of the number of employees in the High North is on contrast with the rest of the country. According to the Russian Labour Market Model (RLMM), employment in Russia has remained consistently high from 1990 until now, which is greatly different from the labour market outcomes during the transition in Central and Eastern Europe (Kapelyushnikov et al. 2011). Kapelyushnikov et al. (2011) explain this phenomenon by the flexible wages and flexible working time that became widespread in labour relations in Russia during the transition because of weak enforcement of the Russian employment protection legislation. The flexible wage was based on the absence of compulsory indexation, significant share of bonuses in the structure of individual wages, wage arrears and "grey" salaries and non-monetary payments (payments in kind). Working time became flexible because of nonstandard work arrangements, shortened working hours and administrative unpaid leaves, secondary employment or multiple jobs, goods and services production in households (during the peak of the farming season about 40 per cent of the adult population is involved in work on private allotments) (Kapelyushnikov et al. 2011).

In general, the permanency of RLMM was based on the labour market institutions. Although there are five common groups of labour market institutions normally shared by all countries (active labour market policies; passive labour market policies; wage setting arrangements, in particular those of trade unions and statutory minimum wages; employment protection legislation and taxation of labour), all of them have national peculiarities and they have a different impact on labour market outcomes. Kapelyushnikov et al. (2011) emphasizes the role of institutions saying that labour market institutions have an essential influence on individual decisions about employment and labour supply and on the employer's decisions about hiring and firing thus they determine the labour demand. So labour market equilibrium depends on the labour market institutions. Lehmann and Muravyev (2012) in their empirical research estimated that in the transition economies institutions matter for labour market outcomes, and that

deregulation of the labour markets improves their performance. It means that strong regulation of the labour market has a negative impact on labour market outcomes.

The case of the High North regions of Russia is interesting because it has the strongest employment protection legislation among all of the regions of the country. On the other hand, all the other institutions in the High North are identical to the rest of the country. Employment protection legislation in the High North regions of Russia is based on the Labour Code of the Russian Federation, Chapter 50 and it also implies special consequences for retirement. The labour code of the Russian Federation provides the following main benefits for employees in the High North regions:

- regional coefficient from 1.15 to 2 points from the individual wage;
- bonuses as a part of wages (in % of wages) with additional bonuses for young people;
- in the case of layoffs, the employer can be obligated to pay the average wage of up to six months instead of the two months' standard in the rest of the country;
- special terms for women e.g. 36 working hours per week instead of 40 for all the other employees with the same wage;
- additional annual paid leave.

Special consequences allowances for retirement provide a younger retirement age (50 y.o. for women and 55 y.o. for men instead of 55 y.o. and 60 y.o.) and regional coefficients to the retirement benefits. All that can have an impact on individual's retirement decisions and employment behaviour and together with the benefits from the labour code seems to lead to the higher protection and better conditions of employment in the High North regions of Russia, especially for women and young people.

In reality, the additional guarantees and compensations significantly increase the costs to the employer in official hiring, wages and layoffs. It can also lead to a more complicated structuring of the wage due to decreases in the base (constant) part of it (for more details about the impact of the labour legislation of the Russian Federation on the wage structure, see Gimpelson and Kapeliushnikov 2008). In other words, while the labour protection legislation for the northern regions is getting tougher, the enforcement of the contrary is getting weaker. Gimpelson et al. (2009) have noted that despite the fact that the labour protection legislation in Russia was adopted at the national level, its practical implementation (enforcement) always appears at the regional level. These interregional differences in the enforcement of the labour protection legislation have shown a statistically significant influence on the development of the regional labour markets. In areas where the strictness of the labour protection legislation is really enforced in practice, the labour market outcomes demonstrate a reduction of employment and an increase of unemployment. This is particularly true for women and young people, i.e. the most vulnerable groups of workers which were supposed to be more protected by the additional norms of the labour protection legislation including those in the northern regions. Empirical estimations have shown that the rigidity of the labour protection legislation of the Russian Federation leads to a narrowing of the demand for labour by the employers. The authors have also found that in the northern regions the violations of the labour protection legislation were more frequently identified. Vishnevskaya and Kapelyushnikov (2008) have showed that most of the northern regions are the leaders in the number of labour disputes compared to the other subjects of the Russian Federation. There are some other studies showing the negative impact of excessive institutional regulation on the regional labour market outcomes. For example, Caponi (2008) analyses the impact of the state program of containment of migration from the southern to the northern regions of Italy and the trade unions actions aimed at supporting this program, on the Italian regions labour market outcomes. He comes to the conclusion that such a policy increases unemployment in the South regions and it reduces salaries in the North, which has a negative impact on the regional labour market outcomes. According to the estimations of Commander et al. (2011) the government policy of artificially maintaining the concentration of employment in the Russian one-company towns

leads to a reduction in productivity. Ammermueller et al. (2007) have compared the groups of regions in Italy (North-South) and Germany (East-West). They show that the strength of the relationship between regional wages and regional unemployment is affected by the institutions in the local labour market. In Italy the impact of institutions on the regional labour market outcomes was more significant because of the informal employment which is widespread and highly affects the enforcement in various regions. This is very similar to the situation in Russia. Therefore, we can assume that the additional norms of the labour protection legislation designed for the High North of Russia increase the strictness of that legislation, which can lead to finding ways and forms to weaken its enforcement in those regions, which often manifests itself in more flexible wages and working time (Kapelyushnikov et al. 2011). It can also cause the constriction of employment compared to the level potentially possible with less stringent regulations. Thus the impact of location on employment in the High North regions of Russia is not obvious and it can be an interesting research question.

Materials and Methods

According to the general model of the local labour markets' equilibrium by Rosen (1979) and Roback (1982), labour inside a country is much more mobile than between countries, which makes domestic labour supply perfectly elastic (Moretti 2011). The model of local labour markets' equilibrium implies that employees select the areas for employment based on nominal and real wages, as well as the productivity of a local (in our case – regional) economy. The possibilities included in individual labour supply decisions are wider for employees with higher qualifications. The simplest pattern of the model of local labour markets' equilibrium is based on the indirect utility function of the individual *i* in a location *c* and it can be presented as follows (1):

$$U_{ic} = w_c - r_c + A_c + e_{ic} \qquad (1),$$

w_c – nominal wage in location *c*,
r_c – housing costs in location *c*,
A_c – amenities of location *c*,
e_{ic} – worker *i* idiosyncratic preferences for location *c*.

The model predicts that the employee makes a decision regarding his choice of local labour market taking into consideration economic factors i.e. the advantages of this area for living and his subjective attitude to living in the particular area. Moretti (2011) has supplemented this model with the fact that individual preferences for place of residence and the opportunities available for using local amenities reduces the elasticity of labour supply between the local markets, but high labour mobility between different areas of the country still remains one of the key preconditions for this model. Therefore, according to this model individual decisions about mobility between regions are based on the local (regional) amenities of a particular territory and they have to increase individual utility to the potential employee and wages, which in some cases can compensate for the loss of the regional amenities when moving to a less desirable location.

As a rule, those kinds of conclusions are based on the theory of compensative differentials (Coelho and Ghali 1971, Greenwood et al. 1991, Bignebat 2003, Lukyanova and Oschepkov 2007, Oschepkov 2010, Lukyanov 2011, Oshchepkov 2015). The theory of compensative differentials suggests that employers are forced to pay higher wages to employees in order to compensate them for the negative utility resulting from the movement to a location with less local amenities. Greenwood et al. (1991) assume that the majority of regional labour markets never reach equilibrium due to migration, wages, and regional price changes. They come to the conclusion that incorrect (over- or under-evaluated) estimations of regional amenities by employees lead to a disequilibrium in regional labour markets because the level of wages is

based on under- or over-evaluated compensative differentials. It can be assumed that the disequilibrium in regional labour markets tells us about the variability of the real size of compensative differentials due to changes in living conditions (e.g. changes in infrastructure) and regional prices for goods and services that affect the dynamics of employment. At the same time, according to the research by Greenwood et al. (1991), the labour supply will be more elastic in regions with the highest proportion of compensative differences in the structure of wages. In Russia, those areas are situated in the High North (Lukyanova and Oschepkov 2007). Empirical evidence of compensative differentials' existence in the regions of the Russian Federation can be found in the works of Bignebat (2003), Lukyanova and Oschepkov (2007), Oshchepkov (2015). An indirect confirmation of the compensative differentials' existence can be the different returns on human capital in the different regions of Russia (Bignebat 2003, Oschepkov 2015). At the same time, in some studies (Lukyanov and Oschepkov 2007, Oshchepkov 2015) it was noted that compensating differences play a greater role if companies do not only have to, but also on the basis of their financial situation can, pay higher wages. The largest concentration of such companies is observed in the northern extractive regions, above all, Khanty-Mansiysk and Yamalo-Nenets Autonomous Okrug. Berger et al. (2003) discovered that in Russia regional amenities have a substantial sufficient impact on interregional migration and compensative differentials exist even if the regional coefficients are excluded. Net migration is positively related with the quality of life (regional amenities) and it reaches the highest level in the South and the European parts of the country.

Lukyanova and Oschepkov (2007) and Oshchepkov (2015) empirically confirmed another important fact –the prices of goods and services make a greater impact on the differences in wages between regions than any other regional labuor market outcomes. The importance of regional prices in the analysis of wages was shown by Coelho and Ghali (1971). They proved that differences in wages between the North and South of the USA disappear if regional prices are taken into account. In spite of the low interregional mobility of employees in the Russian Federation (Bignebat 2003), empirical estimates made by Bignebat (2006) showed a significant impact of regional wages of goods and services on interregional migration in Russia. We can assume that increasing prices for goods and services in the High North of Russia, including those for vital goods such as food or housing, is due to the influx of migrant employees which is a consequence of higher wages in these regions with respect to the other regions of the country. Prices don't usually tend to decrease, consequently, decreasing not only nominal, but real wages can be very significant in terms of outflows from the High North regions.

Based on the analysis of the results of the empirical studies described above, I can try to describe theoretically the dynamics of employment in the High North of Russia. Employees employed in the High North practically do not increase their utility from living in those regions, i.e. there are no regional amenities and wage level is the main motivating factor for employment and residence in these areas. Rising wages attracts employees from other regions of the country and this leads to an increase in the prices of goods and services and it reduces real wages. Additional norms of the labour protection legislation in the High North of Russia rise the cost of hiring and firing employees in those areas and they lead to more moderate decisions of employers regarding the hiring of new employees. As the flexibility of employment is based on flexible working hours and wages, the demand for labour in the northern regions seems to be even more stable than in the rest of Russia. The reaction of employees in the High North to changes in wages may be, on the contrary, closer to the competitive model of the labour market than in other regions of the country because their decisions on labour supply are supposed to be taken more rationally. Mobility of employees from the High North to other regions of the country is usually based on the size of wages and not limited by regional amenities due to their absence. Initially, individuals who came for employment in the High North can be characterized by a greater tendency to risk and mobility, and greater rationality in decision-making. As for companies, they should have strong economic reasons for moving to the North as well, because producing goods in these areas is inherently more expensive due to high

transport costs, poor industrial infrastructure, remoteness from the centre, etc. Empirically, this hypothesis is confirmed by the Bignebat (2006). Based on the results of the World Bank (2010) for restructuring the economy of the Northern regions of Russia (2001-2010), she concluded that for many cities in the High North of Russia a narrowing in the size of a company actually leads to a decrease in the number of residents in this city because of the large number of one-company towns in these areas. It can be explained by the lowest diversity in economic activities in the northern territories among all the Russian regions (Moe and Kryukov 2010, Tatarkin and Loginov 2015). Thus according to our theoretical assumptions, the peculiarities of the labour markets in the High North of Russia are based on a labour force which is highly variable because of migration, on the one hand, and, on the other hand, a quite stable labour demand resulting from a preference for layoffs over the expansion of recruitment. For these reasons, we tested two hypotheses: (1) higher wages and local amenities increase the number of employees and net migration in the High North regions of Russia; (2) lower wages decrease the number of employees due to the migration to the other regions of the country.

To test the hypotheses, I used the regional data of Rosstat (Federal State Statistics Service of the Russian Federation) from the surveys: “Russia’s Regions. Socio-economic Indicators” and "Economic and social indicators in the High North and equivalent areas” from 2005 to 2014. The objects of observation were only taken from those regions whose territories are entirely included into the High North, such as the Republic of Karelia, the Komi Republic, the Republic of Sakha (Yakutia), the Tuva Republic, Kamchatka Krai, Arkhangelsk Oblast, Magadan Oblast, Murmansk Oblast, Sakhalin Oblast, Yamalo-Nenets Autonomous Okrug, Khanty-Mansi Autonomous Okrug - Yugra, Chukotka Autonomous Okrug.

As for the methodology, empirical analyses of regional labour markets are usually based on regional panel data and fixed effects models with different specifications (Lukyanova and Oschepkov 2007, Gimpelson et al. 2009, Muravyev and Oshchepkov 2016). Fixed effects models are relevant for the analysis of the panel data with a limited number of observations. Those observations should have their own sustainable peculiarities which are difficult to measure. All this makes fixed effects models a relevant methodology for regional-level research in Labour Economics. In some cases, if it’s assumed that the variables can only have a significant impact on the basic fixed effects models over some period of time, lags can be added (Greenwood et al. 1991, Muravyev and Oshchepkov 2016). We assume that changes in wages also affects the number of employees in the High North with some lags, because workers need time to perceive the reduction in real wages, to take a decision about leaving and migrating to another region, to organize the move, etc. Employers also don’t respond immediately to a change in their needs concerning the number of employees. They need time to understand the dynamics of wages and labour force population in the region. Vakulenko (2016) calculated a dynamic panel data fixed effects model with spatial effects to estimate net migration among Russian regions. Dynamics in that case means a lag in (t-1)-period, because migration can affect many of the variables in the model (e.g. wages, unemployment rate etc.) thus, using t-period can create an endogeneity problem. According to that logic we come up with two fixed effects models with similar specifications – for net migration and for the number of employees in the regions using (t-1)-period for all the independent variables for the net migration model and the t-period for the number of employees’ model. By and large, we assume that rising wages and the number of employees over the same period of time reflects an increase in labour demand, and rising wages in (t-1)-period of time and net migration in t-period of time reflects an increase in labour supply in the High North labour markets from other regions of the country which were affected by the higher wages of the previous year. We also suppose that estimating the direct impact of net migration on employment in the High North regions of Russia wouldn’t be effective, because official statistical data includes shift employed workers in employment (in the case of full-time jobs), but doesn’t include them in migration. At the same time shift employment is a wide-spread practice in the High North and it means that migration is underestimated and it may lead to its insignificance as an independent variable for

the number of employees' model. We assume that official statistics is positively correlated with the real number of migrants even if it reflects only the "tip of the iceberg". Calculation of the two different equations for migration and number of employees with similar independent variables allows us to describe the interrelation between net migration and employment.

Results and Discussion

Based on all the assumptions made above, the estimated equations are as follows (2-3):

$$lnEmp_{it} = \alpha + \beta_1 lnW_{it} + \beta_2 lnW_{it-1} + \beta_3 lnW_{it-2} + \beta_4 lnW_{it-3} + \beta_5 lnW_{it-4} + \beta_6 lnW_{it-5} + \beta_7 lnW_{it-6} + \beta_8 lnW_{it-7} + \gamma Controls_{it} + \theta_t + \varepsilon_{it} \quad (2)$$

$$Migr_{it} = \alpha + \beta_1 lnW_{it-1} + \beta_2 lnW_{it-2} + \beta_3 lnW_{it-3} + \beta_4 lnW_{it-4} + \beta_5 lnW_{it-5} + \beta_6 lnW_{it-6} + \beta_7 lnW_{it-7} + \gamma Controls_{it-1} + \theta_t + \varepsilon_{it} \quad (3)$$

where it – region *i* in time *t*; *Emp* (logarithm) – number of employees (thousand people); *Migr* – net migration (thousand people); *W* (logarithm) – average wage per month in a particular region (rubles) deflated by consumer price indexes (CPI) for the particular region in the respective years*; θt* is the time vector that reflects the tendencies in the dynamics of employment and migration common for all regions of the High North of Russia; *e* – normally distributed error term.

Control variables include regional amenities, structure of regional economy, development of regional economy, intensity of search across regional labour markets, and education of employees as a quality of labour. Regional amenities we describe with climate characteristics (average temperature of January and July), density of roads with hard coating (at the end of the year; km of roads per 1000 km^2, Road) as a proxy for exploration in the territory of the region, incidence per 1000 population of registered disease in patients where the diagnosis is made for the first time (Disease). Estimating migration, we use January and July temperature without lags (t-period), because migration can't affect these variables. As a proxy for the structure of the regional economy the share of employees in trade (Trade) and manufacturing (Manuf) with respect to all of the employees in the region (%) was used. Trade and manufacturing industries are present in all of the regions, and the share of employees involved in these industries isn't correlated with wages and Gross Regional Product (GRP), but correlated with the total number of employees in the region. GRP (thousand rubles, logarithm) was added as a variable that describes development of the regional economy (productivity in the model of local labour markets' equilibrium) and it was included in the model of employment as we suppose that growth of the regional economy leads to the increasing of labour demand, i.e. number of employees. GRP wasn't included in the migration model, because, as written above, migration reflects increasing labour supply to the particular region from the other regions of the country and wages are enough to indicate the level of regional development for employees. Intensity of search across regional labour markets was measured using the size of the economically inactive population (Inactive, thousand people, logarithm) and number of unemployed (Unempl, thousand people, logarithm) for the employment model and by the unemployment rate (Un_R, %) for the migration model. Economically inactive population and unemployed are basic resources required for employment (Gimpelson and Sharunina 2015). The unemployment rate is more relevant for migration because it is strongly correlated with intensity of search in regional labour markets.

The number of lags was determined on the basis of the formal criteria of Akaike and Schwarz. Calculation was carried out in the Gretl econometric package, all the main formal tests (joint

test on named regressors, Hausman test, test for the normal distribution of the error term and Durbin–Watson statistic) were met successfully, and the results of the estimation are shown in Table 1.

Table 1

Estimated results of the regressions

Regressor	Regress and Coefficient (standard error)	
	Emp (log)	**Migr**
const	-1.72 (1.79)	-1.29E+06***
W (log)t	0.12 (0.05)*	-
W (log)t-1	0.20 (0.08)**	1797.82 (34440.7)
W (log)t-2	0.13 (0.11)	1948.15 (19769.9)
W (log)t-3	-0.01 (0.11)	50315.6 (17242.7)**
W (log)t-4	-0.21 (0.07)**	43122.5 (11833.3)***
W (log)t-5	-0.11 (0.02)***	2333.23 (12763.5)
W (log)t-6	-0.02 (0.07)	25402.2 (18151.1)
W (log)t-7	0.13 (0.09)	8099 (25691.9)
January	0.004 (0.0006)***	75.5 (61.81)
July	-0.001 (0.0007)	-417.23 (139.34)**
Disease	-0.0001 (4.06E-05)**	-
Disease t-1	-	9.39 (10.79)
Road	-0.008 (0.003)*	-
Road t-1	-	189.1 (216.2)
Trade	0.02 (0.003)***	-
Trade t-1	-	2977.52 (745.62)***
Manuf	-0.002 (0.003)	-
Manuf t-1	-	-64.39 (806.19)
Inactive (log)	0.13 (0.02)***	-
Unempl	0.0001 (0.0002)	-
Un_R t-1	-	-400.46 (579.54)
Edu	0.001 (0.001)	-
Edu t-1	-	-153.61 (196.8)
GRP (log)	0.39 (0.05)***	-
time	-0.035 (0.01)**	-6366.48 (2984.64)*
	Number of observations 120	*Number of observations 120*
	Standard regression error 0.008	*Standard regression error 1652.008*
	R^2(within) 0.941	*R^2(within) 0.783*
Joint test on named regressors	*F(19, 5) = 4,17157 p-value = P(F(19, 5) > 4,17157) = 0,0601059*	*F(16, 8) = 1,80272 p-value = P(F(16, 8) > 1,80272) = 0,201026*
Hausman test	*F(11, 5) = 157,95 p-value = P(F(11, 5) > 157,95) = 1,26624e-005*	*F(11, 8) = 8,16534 p-value = P(F(11, 8) > 8,16534) = 0,00313821*
Normality of error distribution test	*Chi-squared (2) = 3,42951 p-value = 0,180008*	*Chi-squared (2) = 2,67266 p-value = 0,262809*
Durbin–Watson statistic	*1.158<1.84<1.977 α=0.01*	*1.203<1.77<1.922 α=0.01*
***** 1% significance level, ** 5% significance level, * 10% significance level**		

Source: author's estimates.

The results showed that wage level is a significant factor that positively affects the involvement of migrants in the workforce in the northern regions. Migration always reacts to the growth of

wages positively. It proves the findings of previous research (Vakulenko 2016) that income factors affect migration between Russian regions more than regional amenities. Wages have a positive impact on employment as well but only in the first three years. A rise in wages and number of the employed over the same period of time means an increase in labour demand in the region. As we can see from Table 1 employers hire new workers during the first two years after a wage growth. Net migration becomes significant after four years of increasing labour demand in the region (t-3 period) and after that wages have a negative impact on the number of employees. This negative impact becomes significant in the (t-4) and (t-5) periods. At the same time, we can see that net migration is still positively affected by wages, but it becomes insignificant after the (t-4) period. In other words, if wages were increased 5 years ago (t-4 period) this almost doesn't affect employment in t-period, but it still positively affects migration. In my opinion, it confirms the findings of previous empirical research and our theoretical assumptions about the greater flexibility of labour supply to the northern territories. It also tells us that an increase in wage levels attracts new employees from other regions and this growth of the labour force population leads to the satisfaction of labour demand and wages declining. More concretely, the estimated coefficients reflect the following picture. Growth of wages by 1% increases the number of employed in the same year by 0.12% and in a year by 0.32%. In four years (t-3)-period growth of wages increases net migration by 503 people and a year after to 934 people. At the same time in (t-4) period growth of wages increases number of employment to 0.11% and in the next (t-5) period its impact is 0. It demonstrates that labour demand increased in period t is satisfied and in a long-term perspective the increasing of wages is not enough for the employment growth. That is why we can see the negative impact of time on employment (the number of employees reduces with time) and net migration (there aren't any other reasons to live in the High North except work and earnings). Also, the need of the employers for new workers can be satisfied by the economically inactive population (e.g. the younger generation which becomes economically active) – the impact of the inactive population is positive and a 1% growth of it increases employment by 0.13%. Thus, the results of my research reflect a surplus of labour supply with respect to labour demand in the High North of Russia. The reaction of the individuals who seek a job in the High North is too strong, and the reaction of the labour demand is on the contrary moderate or at least not so flexible. Lack of flexibility of Russian employers (firms) in the hiring and firing process was also empirically proven by Gimpelson et al. (2010). By and large it can be assumed that the artificial suppression of migration from the High North to the other regions of Russia or strengthening employer's obligations to provide higher levels of wages will worsen these negative consequences.

In addition to wages, some control variables also appeared to be significant. Almost all the factors of regional amenities have a significant impact on employment, but do not affect net migration. Thus, a rise in the average temperature of January by $1^{\circ}C$ increases employment in the particular region by 0.4%. In my opinion, it tells us more about the effect of climatic conditions on seasonal work in the mining and extractive industries, construction etc., because the number of employees reflects labour demand more than labour supply. The negative impact of the July temperature on net migration can hardly be logically explained. The main assumption here can be that slightly increasing temperatures is a common tendency for the northern territories. The average temperature of July only depends on time and as we can see from Table 1, time gives a negative trend to net migration. Density of roads with hard coating (Roads) has a negative impact on employment. Most likely it means that the wider exploration of regional territory reduces the need for new workers. More concretely an increase in the density of roads with a hard coating to 1 km of roads per 1000 km^2 of territory decreases the number of employees in the region by 0.8%. It can be noted that the January temperature and the density of roads have a numerically greater impact on employment than wages. It means that in the High North regions of Russia location affects employment more than wages and its regulation by the government (including the regional coefficients to wages).

The sign and significance of the variable of disease also appears revealing. Its growth over a year reduces employment by 0.01%. It reflects the positive impact of health in a particular region on the dynamics of employment in the High North. Numerically, the impact of disease is not high, but still it demonstrates that a good health of the employees increases not only their productivity at work, but also the level of regional amenities and employees can agree to work for lower wages without leaving the northern areas.

The structure of the regional economy also appears to be significant – a growth in the share of people employed in trade by 1% leads to an increase in net migration of 2977 people and employment by 2% and these are the most significant impacts from all the regional variables (except time, but time isn't unique for the particular region). This result can be interpreted within the model of local labour markets equilibrium (Moretti 2011). Since employment in the main industries wasn't included in the independent variables because of its high correlation with GRP it wasn't possible to estimate its impact on the dependent variables (number of employees and net migration). However, according to the model of Moretti (2011), employment in trade, which refers to the industries that produce the so-called "non-tradable goods", is secondary to the main industries in a region. In other words, the main industries of a regional economy are the first to develop. They attract more employees and it affects the development of the service sector, including trade, in order to serve the needs of employees in the other industries. Consequently, the significance and the sign of the structure of the regional economy can be explained as a reaction of immigrants to the development not only of the trade itself, but also to the growth of employment in the basic industries of the regional economy. The main industries in the studied regions of the High North of Russia are:

- the Republic of Karelia – forest and wood processing sector, extraction of metal ores;
- the Komi Republic – wood processing sector, extraction of oil and gas;
- the Republic of Sakha (Yakutia) – diamond, gold and tin ore mining industries;
- the Tuva Republic – coal, cobalt, gold mining industries and timber;
- Kamchatka Krai – fishing, forestry, extraction of nickel and coal;
- Arkhangelsk Oblast – fishery, forestry, paper industry extraction of oil and metal ores;
- Magadan Oblast – mining of gold and silver;
- Murmansk Oblast – extraction of metal ores, fishing;
- Sakhalin Oblast – extraction of oil, gas and coal;
- Yamalo-Nenets Autonomous Okrug – extraction of gas;
- Khanty-Mansi Autonomous Okrug - Yugra – extraction of oil;
- Chukotka Autonomous Okrug – mining of gold.

The positive sign and significance of the GRP highlight the assumptions about trade and the main industries. Developing the regional economy increases employment in the region – 1% of GRP growth leads to a 0.39% increase in the number of employees. As development of the main regional industries depends mostly on the geographic position of the region, it can be concluded that territorial factors significantly affect employment in the High North of Russia. Moreover, factors which are determined by the locality such as climate, exploration in the territory of the region, and development of the main industries of the regional economy, have a greater impact on employment in the northern regions than just the increasing of wages.

The results of the presented research have some implications for economic policy in the High North regions of Russia. There are lots of unexplored resources in the studied territories especially in Kamchatka Krai, Yamalo-Nenets Autonomous Okrug and Chukotka Autonomous Okrug. The provided research shows that exploration and further development of extractive and mining industries of the studied regions is the main factor leading to increasing employment in these territories. The most important restrictive factor for the further exploration of the High North regions is the extreme winter climate (significance of January variable). We can suppose that there is no particular need to attract new employees to the High North regions as migration by itself positively reacts to increasing wages and the development of the

main industries of the regional economy. It can be assumed that extending the possibilities for regional economic and industrial development and improvement (probably with special conditions in taxation) of investment and the entrepreneurial climate together with the government support of investments in hard to explore territories can attract migrants from other regions of the country, including those with the high rate of unemployment. On the contrary, the artificial suppression of migration from the High North to the other regions of Russia or strengthening employer's obligations to provide higher levels of wages without stimulation of the main industries of the regional economy may cause at surplus of labour supply over labour demand, which most likely will increase out-migration from the High North.

Conclusions

The peculiarities of employment in the High North of Russia are based on the specifics of labour supply and labour demand in those regions. Individual decisions about labour supply are affected by regional amenities, which are able to increase the indirect utility to an employee in the High North as long as the wages are also high enough to compensate for the unfavourable conditions of life. Labour supply responds to the dynamics of wages through interregional migration. The specifics of the Russian Labour Market Model are explained by the combination of officially strong employment protection regulations, weak enforcement and low labour market institution performance in general. All that leads to a combination of a sustainably high level of employment and a low real protection of employees in the Russian economy. The additional institutional regulation of labour demand in the High North of Russia, such as wage arrangements and employment protection legislation, is established by Chapter 50 of the Labour Code of Russia and it assumes more stringent labour protection legislation in the High North compared with the rest of the country. This leads to higher costs in the hiring and firing of workers and it has a significant impact on the labour market outcomes.

A number of empirical studies carried out on the Russian data have shown that differences in wages between regions had a significant impact on interregional mobility. Compensative differentials do present themselves in the structure of wages of the individuals employed in unfavourable living conditions. The real value of the compensative differentials varies considerably under the influence of regional prices. All this makes the labour supply in the High North of Russia more flexible and labour demand more constrained compared with the rest of the country.

The fixed effects models estimated using the panel data for the High North regions of Russia from 2005 to 2014 demonstrated that wage is a significant factor that positively affects interregional migration to the northern regions. On the other hand, local amenities and geographical characteristics (e.g. climate and exploration in the territory of the region) of the High North regions of Russia have a greater impact on employment than wages. The development of the main industries of a regional economy has the most significant impact on employment and migration in the studied areas. Our findings show that the economic development of the main industries of a regional economy in the High North leads to an increasing number of employees rather than growth of wages only. Moreover, according to economic logic, a growth in wages should be the result of a regional economy's growth. The increasing of wages positively affects the net migration to the High North from the other regions of Russia and it demonstrates the reaction of labour supply reinforced by the immigration to the High North regions. Longer positive affect of wages on net migration than on employment results in the surplus of labour supply with respect to labour demand in the High North regions of Russia. It can be assumed that the separate regulation of migration or wages seems to have a weaker impact on employment in the High North regions of Russia than supporting the development of the main industries of the regional economies.

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References

AMMERMUELLER A., LUCIFORA C., ORIGO F., ZWICK T. (2007), *Still searching for the wage curve: evidence from Germany and Italy*, IZA Discussion Paper 2674, Bonn.

BERGER M., BLOMQUIST G. C., SABIRIANOVA PETER K. (2003), *Compensating differentials in emerging labour and housing markets: estimates of quality of life in Russian cities*, IZA Discussion Paper 900, Bonn.

BIGNEBAT C. (2003), *Spatial dispersion of wages in Russia: does transition reduce inequality on regional labour markets?,* TEAM, University of Paris 1 & CNRS, Paris.

BIGNEBAT C. (2006), *Labor market concentration and migration patterns in Russia*, MOISA Working Paper 4, Montpellier.

BLANCHARD O. J., KATZ L. F. (1992), *Regional evolutions*, Brookings Papers on Economic Activity 1, 1-75.

BRATTI M., LEOMBRUNI R. (2014), *Local human capital externalities and wages at the firm level: Evidence from Italian manufacturing*, Economics of Education Review 41, 161-175.

CAPONI V. (2008), *Centralized wage determination and regional unemployment differences: the case of Italy*, IZA Discussion Paper 3592, Bonn.

COELHO P. R. P., GHALI M. A. (1971), *The end of the North-South wage differential*, The American Economic Review 61 (5), 932-937.

COMBES P.-P., DURANTON G., GOBILLON L., ROUX S. (2012), *Sorting and local wage and skill distributions in France*, Regional Science and Urban Economics 42 (6), 913-930.

COMMANDER S., NIKOLOSKI Z., PLEKHANOV A. (2011), *Employment concentration and resource allocation: one-company towns in Russia*, IZA Discussion Paper 6034, Bonn.

DAVID Q., JANIAK A., WASMER E. (2010), *Local social capital and geographical mobility*, Journal of Urban Economics 68 (2), 191-204.

FUJITA M., KRUGMAN P., VENABLES A. J. (1999), *The spatial economy: cities, regions and international trade*, The MIT Press, Massachusetts.

GILTMAN M. A. (2014), *Estimations of the impact of some variables on the labor demand and labour supply in the subjects of the Russian Federation*, Economy 4 (23), 73-77.

GIMPELSON V., KAPELIUSHNIKOV R., LUKIYANOVA A. (2009), *Employment protection legislation in Russia: regional enforcement and labour market outcomes*, IZA Discussion Paper 4484, Bonn.

GIMPELSON V., KAPELIUSHNIKOV R., LUKIYANOVA A. (2010), *Stuck between surplus and shortage: demand for skills in the Russian industry*, Labour 24 (3), 311-332.

GIMPELSON V., SHARUNINA A. (2015), *Flows in the Russian labor market: 2000–2012*, HSE Economic Journal 19 (3), 313-348.

GIMPELSON V. E., KAPELIUSHNIKOV R. I. (eds.) (2008), *Labor wages in Russia: evolution and differentiation*, Higher School of Economics Publishing House, Moscow.

GIMPELSON V. E., KAPELIUSHNIKOV R. I. (eds.) (2014), *Between light and shadow: informality in the Russian labour market*, Higher School of Economics Publishing House, Moscow.

GREENWOOD M. J., HUNT G. L., RICKMAN D. S., TREYZ G. I. (1991), *Migration, regional equilibrium, and the estimation of compensating differentials*, American Economic Review 81 (5), 1382-1390.

HASNULIN V. I., VOEVODA M. I., HASNULIN P. V., ARTAMONOVA O. G. (2016), *Modern approach to arterial hypertension in the Circumpolar and Arctic regions. Literature Review,* Human Ecology 3, 43-51.

KAPELYUSHNIKOV R., KUZNETSOV A., KUZNETSOVA O. (2011), *Diversity within capitalism: the Russian labour market model,* Employee Relations 33 (4), 395-412.

LEHMANN H., MURAVYEV A. (2012), *Labour market institutions and labour market*

performance: What can we learn from transition countries?, Economics of Transition 20 (2), 235-269.

LEHMANN H., ZAICEVA A. (2013), *Re-defining Informal Employment and Measuring its Determinants: Evidence from Russia*, IZA Discussion Paper 7844, Bonn.

LUKIYANOVA A. (2011), *Wage inequality in Russian economic transition (1991–2008): stylized facts and explanations*, The Journal of the New Economic Association 12, 124-147.

LUKIYANOVA A., OSHCHEPKOV A. (2007), *Regional labor markets functioning: wages and unemployment*, in: Social policy: the realities of the XXI century 3, Independent Institute for Social Policy, Moscow, pp. 32-71.

MANNING A., PETRONGOLO B. (2011), *How local are labor markets? Evidence from a spatial job search model*, IZA Discussion Paper 6178, Bonn.

MIRONENKO O. N. (2012), *Employers' adjustment to the requirements of employment protection legislation in Russia*, Russian Management Journal 10 (3), 31-54.

MOCANU I., ŞERBAN P.-R. (2015), *Exploring the quality of employment in Romania at different territorial levels*, Journal of Urban and Regional Analysis 7 (2), 177-191.

MOE A., KRYUKOV V. (2010), *Oil exploration in Russia: Prospects for reforming a crucial sector*, Eurasian Geography and Economics 51 (3), 312-329.

MORETTI E. (2011), *Local Labor Markets*, in: Card D., Ashenfelter O. (eds.), Handbook of Labour Economics 4 (B), Elsevier, Amsterdam, pp.1237-1313.

MURAVYEV A., OSHCHEPKOV A. Y. (2016), *The effect of doubling the minimum wage on employment: evidence from Russia*, IZA Journal of Labor & Development 5 (6), 1-20.

OSHCHEPKOV A. (2010), *Return to higher education in Russian regions*, HSE Economic Journal 14 (4), 468-491.

OSHCHEPKOV A. (2015), *Compensating wage differentials across Russian regions*, in: Mussida C., Pastore F. (eds.), Geographical Labor Market Imbalances. Recent Explanations and Cures, Springer, Berlin, pp. 65-105.

ROBACK J. (1982), *Wages, rents and the quality of life*, The Journal of Political Economy 90 (6), 1257-1278.

ROSEN S. (1979), *Wage based indexes of urban quality of life*, in: Mieszkowski P., Straszheim M. (eds.), Current Issues in Urban Economics, Johns Hopkins University Press, Baltimore, pp. 74-104.

SEMERIKOVA E. V., DEMIDOVA O. A. (2015), *Analysis of regional unemployment in Russia and Germany: spatial-econometric approach*, Spatial Economics 2, 64-85.

TATARKIN A. I., LOGINOV V. G. (2015), *Estimation of potential for natural resources and production in northern and Arctic areas: conditions and prospects for use*, Studies on Russian Economic Development 26 (1), 22-31.

VAKULENKO E. (2016), *Does migration lead to regional convergence in Russia?*, International Journal of Economic Policy in Emerging Economies (IJEPEE) 9 (1), 1-25.

VISHNEVSKAYA N., KAPELYUSHNIKOV R. (2008), *Enforcement of labor legislation in Russia: coverage, dynamics, regional differentiation*, Economic Policy 1, 170-195.

WORLD BANK (2010), *Implementation completion and results report (IBRD-46110) on a loan in the amount of US$ 80 million to the Russian Federation for a northern restructuring project*, The World Bank, Washington, DC.

ZUBAREVICH N. V., SAFRONOV S. G. (2011), *Regional inequality in large post-Soviet countries*, Regional Research of Russia 1 (1), 15-26.

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INTRA-URBAN SPATIAL CHANGES AMONG WOMEN ENTREPRENEURS IN BUCHAREST (ROMANIA) DURING ECONOMIC TRANSITION (1992-2002)

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Abstract: Women entrepreneurs in Bucharest, Romania, increased by six times (compared to five times for men) between the 1992 and 2002 censuses, during a period of transition from a centrally planned to a market economy. A study of over 150 territory referential units shows a concentration of business women in central, high income areas and a correlation between the entrepreneurial status and education. Data from 50 telephone interviews show that women with university degrees are more likely to operate at a city-wide or national scale, in fields such as cosmeticology, consultancy, law, design, art, and manufacturing. Women without higher education tend to operate at a local, smaller scale. Both spatial concentration and education have an impact upon business behaviour.

Key Words: *women entrepreneurs, transition economy, post-socialism, Bucharest*

Introduction

The study of the spatial implications of women's work has been a growing topic in geography and other social sciences since the 1970s (Gamarnikow 1978). Most studies adopt a sectoral approach to address the characteristics of women business owners (demographic, education and training, work experience, competencies), or market sectors, including investment fields. Since the 1980s, geographers have addressed the interconnections of gender, work, and urban processes such as gentrification (Wekerle 1984, Rose 1987) and urban economic restructuring (Mackenzie 1986, England 1991). The confluence of women, work, and place (Kobayashi 1994, Hanson and Pratt 1995, McDowell 1997, Pratt 2004) provides the dynamic context in which to understand their experiences as entrepreneurs, and the ways in which women and men interact with the urban environment – including other people – in specific, spatially defined ways. Understanding the context in which gender variations occur is important, since gender is not a simple female/male dichotomy, but it varies according to cultural and social norms and practices in different places, and between developing (Ubogu et al. 2010) and developed nations (Diaz Muñoz 1995). As Calás et al. (2009: 555) point out, "a focus on gender relations brings the analyst's attention not simply to the sex of participants as embodied actors but to the cultural production of their subjectivities and the material production of their social lives".

Recent international studies expand our understanding of the spatial outcomes of women's changing role in the urban economy. For example, the new technological sectors attract more and more women in non-specific activities, fact that leads to a re-thinking of the relationship among technology, place, and gender (Boyer 2006). Al-Hossienie (2011) suggests the need, especially in developing contexts, to understand women's entrepreneurship in the context of the family *and* the national economy, emphasizing that both economic and social changes are involved. Brush et al. (2002) also make this point, by showing that women's entrepreneurship is

a channel not only to a better integration within the economy, but also to the development of social capital in general. Hood and Thompson (1994) go so far as to suggest that there is a link between successful entrepreneurship and citizen participation, because women use feminist principles in making charitable donations. Arapoglou and Sayas (2009), analysing changes in the operational structures of Athens, conclude that new ethnic and gender divisions, combined with residential mobility, introduce strong tendencies towards fragmentation in intra-urban space. Analysing the spatial fragmentation of High-Tech firms led by women in four large American urban agglomerations (San Francisco-Silicon Valley, Boston, Washington DC, Portland), Mayer (2008) confirms the theory that labour market fragmentation influences the distribution of companies led by women in the high technology fields.

A number of recent studies also emphasize the significance of social and cultural factors influencing urban spatiality. Mapping social networks shows the significance of support networks for women entrepreneurs (Audretsch et al. 2006, Trettin 2006) and that such networks empower women to contribute to the economic wellbeing of their surrounding communities (Bruni et al. 2004a, Bruni et al. 2004b, Court 2012). In contrast, Rosenthal and Strange (2012) argue that the spatial mismatch of home and work is more pronounced for women than for men. Because women are less networked than men, and commute shorter distances because of domestic duties, women-led businesses are less agglomerated, and less likely to be located in interactive centres of activity, with a concomitant reduction in elasticity of sales. Gender and other demographic characteristics then provide a possible basis for spatial mismatch across different national contexts (Preston and McLafferty 1999). There is strong consensus, however, that place does matter in forming the culture of entrepreneurship as well as the essential component of agglomeration (Glaeser 2010, Glaser et al. 2010).

In the formerly centrally-planned countries that include Romania, prior to 1989, entrepreneurship experience was almost non-existent, as private property was very limited and the cultivation of individual “entrepreneurial spirit” was practically forbidden. The main argument was that an ethic of individualism would destroy the basis for an equalitarian society. Authorities often cited the first Marxist-Leninist thesis, which stated that “in the new society” each person’s contribution should be determined by individual work capacity, and the distribution of goods should be dependent upon needs. Notwithstanding that most of the countries that underwent an economic transition from a centrally planned to a market economy after 1989 cultivated leadership by promoting some women to high positions within the state. The women were much slower than men to develop entrepreneurial activities during a period of “social-economic rehabilitation” (Ianoș 2000), when men enjoyed both more extensive potential business contacts from the former regime, and a greater ability to travel throughout the country and internationally. As the rate of economic development accelerated through the 1990s and early twentieth century, however, women began to make spectacular gains to become a dynamic entrepreneurial force (Welsh and Dragusin 2006).

Our study expands upon the literature on gender and socioeconomic and cultural changes in the intra-urban areas of post-socialist transition countries such as Poland, Germany, the Czech Republic, Hungary, or the Baltic countries (Grabher and Start 1997, Pickles and Smith 1998, Pickles 2008, Marcińczak and Sagan 2011). Izyumov and Razumnova (2000) suggest that the circumstances of transition carry forward longstanding marginalization of women with the result that market reforms began, in the early 1990s, by shunting them into less lucrative micro-entrepreneurial activities. Although it is beyond the scope of this article to address the larger question of the differences between post-social transition countries and the larger international context, our results point to the need to understand women’s entrepreneurial activities according to the place-specific context in which they occur.

Romania remains one of the least studied of the post-socialist economies, although the analysis of Romanian statistics to date shows that in 2005, approximately 38% of small and

medium sized enterprises (SMEs) at a national level were led by women (Dragusin 2007). In Bucharest itself, the percentage was under the national average, due to the vast number of SMEs, but the capital city soon caught up. The wage gap between men and women was cut by two thirds between 1991 and 2006 (Hordau and Pop Sitar 2009). Initially, women invested in small scale commence and services, just like women from other developing countries (Loscocco and Robinson 1991), but gradually turned to clothing production, high technology, and especially media, beauty products, and art. Romania now has a recognized cadre of visibly successful business women.

This study examines the growth of women entrepreneurs in Bucharest, Romania, between the last two censuses (1992 and 2002), to explain their spatial pattern of residence, the relationship between domicile and quality of life across neighbourhoods, and the relationship between business activity and education, during a period of transition from a centrally planned to a market economy. We link demographic characteristics, including income and educational attainment, to business activity and economic restructuring, to show variations in spatial patterns at an intra-urban scale.

Methodology

We faced two methodological questions in developing our research strategy. The first was whether to think about entrepreneurial "changes" or about entrepreneurialism as a new phenomenon creating for the first time a business social culture. We chose the former on the grounds that we are examining not only the shift in business itself from an (almost) non-existent base, but also the incremental spatial changes to the built environment at an intra-urban level. The second question concerned the ways to separate the two categories: first, the women who own their own firms; and, second, the women who work independently. We chose to analyse the two categories separately at the macro-territorial level, but at the micro-territorial level, the analysis relates only to the first category, of women who own their own firms.

Statistical data for the 1992 and 2002 censuses were obtained from the Directorate of Statistics of Bucharest Municipality, based on highly detailed territorial referential units provided by the Urban Planning Centre of Bucharest City Hall. Between the two census years, the number of units was reduced from 160 to 154. This reorganization resulted in the elimination of undeveloped spaces, and therefore does not significantly affect our analysis. We also conducted 50 qualitative telephone interviews to investigate the relationship between home and work, the role of family support, and experiences of entrepreneurship at district level.

To explore the spatial changes of women entrepreneurs in the city of Bucharest we performed an exploratory spatial data analysis – ESDA (Anselin et al. 2006). The Moran's test, as part of the ESDA, revealed the non-random nature of the variable clusters. The second step in our analysis relied on the autocorrelation of women entrepreneurs in space, measured with local indicators of spatial association (LISA). The presence of gaps in the census data map required several additional steps to remove them. The matrix construction followed a distance based approach of k-nearest neighbours. The k element represents the number of neighbouring units nearest to the core and this becomes useful because of the size variation of census units. As a final step, the analysis included the correlation of business women's distribution with five other variables: the percentage of women with higher education over 20 years of age, the percentage of women having more than three children, the rate of female unemployment, the female population occupied in industry, and the population over 65 years of age.

Our analysis followed three stages. First we analysed the population variation of women entrepreneurs at a macro-territorial level using the administrative division of Bucharest into six sectors. Second we explored the distribution and the local spatial autocorrelation of women entrepreneurs. Finally we interpreted changes revealed by the LISA maps and used the results

of telephone interviews to provide contextual information on the patterns that emerged in the spatial analysis.

Study Area

The city of Bucharest is the capital of Romania. With a population of nearly 2 million, it has 9% of the country's total population, over 18% of the employees nationally, 23.4% of total employees in the service sector, and it accounts for 20.6% of the GDP. Bucharest was among the few European capital cities to register almost 50% of the labour force employed in industry before 1989. The extensive industrialization of the capital, beginning in the 1960s, resulted in the development of large peripheral areas, where most of the industrial activities were located, in close proximity to large working class housing districts (Gavriș 2010).

The transition to a market economy in a large city such as Bucharest meant a fundamental shift in the structure of economic activities, as tertiary activities exploded to surpass secondary economic activities. In the decade following 1989, there was a rapid development of service industries, which had previously been underdeveloped, and deindustrialization resulted in a transfer of labour power to the tertiary sector. The rapid development of upscale tertiary activities (banking, finance, management, insurance, higher education) resulted in the concentration of capital away from smaller cities towards the capital.

Results and Discussion

Table 1 shows the spatial changes in the distribution of women entrepreneurs as a proportion of the labour force between 1992 and 2002. Whereas the proportion of women in the Bucharest population decreased very slightly (0.3%) over this period, there was a spectacular increase in the proportion of women who were entrepreneurs (13.9%), as well as a 3.5% increase in the female proportion of all entrepreneurs.

Table 1

Dynamics of the female entrepreneurial population in Bucharest, by section (1992-2002)

	1992				2002			
	Total labour force	**Women in the labour force (%)**	**Independent women entrepreneurs in the labour force (%)**	**Women of total entrepreneurs (%)**	**Total labour force**	**Women in the labour force (%)**	**Independent women entrepreneurs in the labour force (%)**	**Women of total entrepreneurs (%)**
Sector 1	107 283	47.8	4.4	25.2	88 791	48.2	22.1	30.1
Sector 2	182 908	48.7	2.5	25.7	153 124	48.0	19.7	29.4
Sector 3	195 236	48.3	2.2	26.0	175 844	48.0	17.7	28.5
Sector 4	155 469	48.3	2.0	29.5	130 592	47.9	15.3	31.3
Sector 5	125 112	47.1	3.2	27.9	110 826	46,9	10.9	30.6
Sector 6	194 779	48.5	1.2	25.1	166 478	48.5	13.0	31.2
Bucharest	**960 787**	**48.2**	**2.4**	**26.4**	**825 655**	**47.9**	**16.3**	**29.9**

Source: Population Census 1992 and 2002, processed data

Sectors 1 and 2 stand out as the most entrepreneurially enterprising. It is interesting that in 1992, Sector 5 was in the second position, after Sector 1, but ten years later it had among the lowest levels of women entrepreneurs, less than half of Sector 1. These two sections are known to be polar opposites in terms of life quality; Sector 1 is considered to be Bucharest's aristocratic area, with a wealthy population, and Sector 5 is the poorest, with several

neighbourhoods (Ferentari, Rahova, Sălaj) much below the average income of the city. In 1992, Sector 5 showed a number of small businesses and a lack of commercial and business culture, but suffered over the next decade both from a dramatic reduction in manufacturing jobs, and from a replacement of small businesses with commercial chains and supermarkets.

The most significant growth in the proportion of business women over the decade took place in Sector 6 (24.3%) and Sector 1 (19.4%). The advancement of Sector 6 is not surprising as it includes the "protocol district" – Drumul Taberei, visited by most of the head-of-state delegations that arrived in Romania before 1989. Drumul Taberei is now inhabited mostly by former employees who worked within the army or the police, and a university-educated population working in educational and administrative institutions.

The proportions of women holding entrepreneurial business licenses help reveal the changes that occurred in Bucharest (Table 2). Again, there is a significant increase (more than double) in the percentage of the labour force holding business licenses, and an even greater increase in the percentage of women entrepreneurs in the labour force. Women now make up nearly 40% of all licensed entrepreneurs. Sector 6, however, is the exception, where the proportion of women actually declined, although the overall percentages by 2002 were close to those for the rest of the city.

Table 2

Women with entrepreneurial business licenses in Bucharest, by section (1992-2002)

	1992			2002		
	Licensed entrepre-neurs, total labour force (%)	Licensed women entrepre-neurs, total labour force (%)	Women of total licensed entrepre-neurs (%)	Licensed entrepre-neurs, total labour force (%)	Licensed women entre-preneurs, total labour force (%)	Women of total licensed entre-preneurs (%)
Sector 1	9.5	6.4	32.4	19.1	15.4	38.9
Sector 2	6.8	4.2	30.3	15.6	12.1	37.2
Sector 3	5.0	3.4	32.2	11.5	9.0	37.4
Sector 4	5.3	3.4	30.7	13.3	10.9	39.0
Sector 5	6.3	3.6	27.0	11.5	7.6	31.3
Sector 6	6.6	7.0	51.1	8.4	6.5	37.5
Bucharest	**6.4**	**4.6**	**34.9**	**12.7**	**9.9**	**37.1**

Source: Population Census 1992 and 2002, processed data

The micro-territorial level analysis (of review units), which includes only women with entrepreneurial licenses, shows major variations in the distribution of license holders. The 1992 map (Fig. 1) shows their concentration in the central-northern part of the capital, in Băneasa, Domenii, Herăstrău, Primăverii and Floreasca districts, inhabited by the most wealthy social classes, continuing south to Tineretului, as well as the new residential area situated along Unirii Boulevard, located to the east of the Parliamentary Palace or the northern part of Militari district. The central-northern area is thus distinguished from the working class districts such as Apărătorii Patriei and Berceni to the south. The asymmetry between the northern and southern parts of the city is very clear.

The 2002 map (Fig. 2), reveals a stronger concentration in the central area, and it shows a clock-wise rotational movement with a stronger and more compact concentration in the central districts (Sectors 1, 2, and 3). This movement coincides with a re-grouping of the wealthiest inhabitants into the central area, which is characterized by the "villa" type of housing, built in the interwar period. In contrast, two low-value areas stand out at the opposite ends of the city, which include some of the poorest neighbourhoods of Ferentari, Rahova, and Giurgiului in the south and Chitila, Bucureștii Noi, Dămăroaia, and Străulești in the northwest.

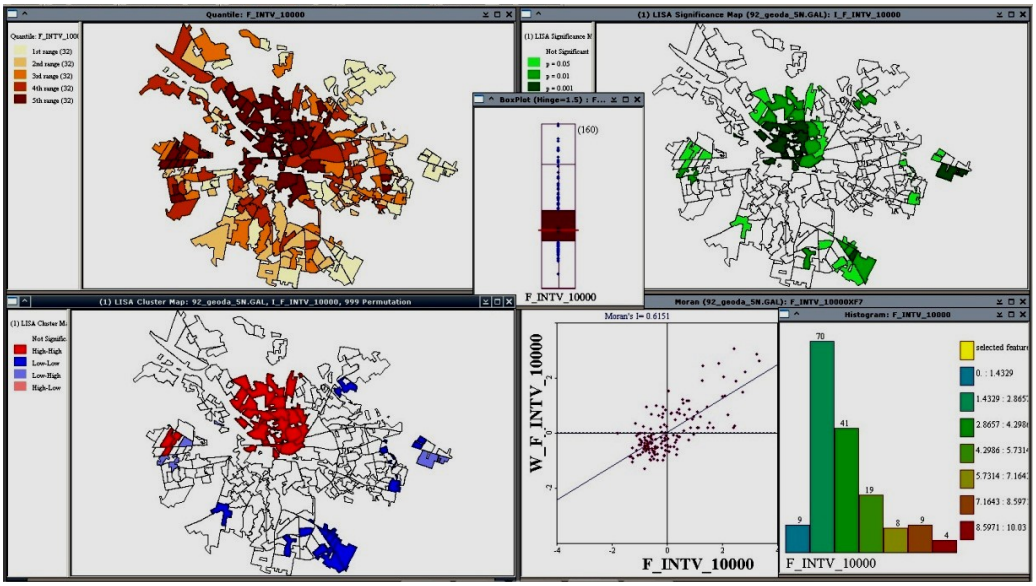

Fig. 1 **– Distribution and clustering of women entrepreneurs in Bucharest by district (1992)**

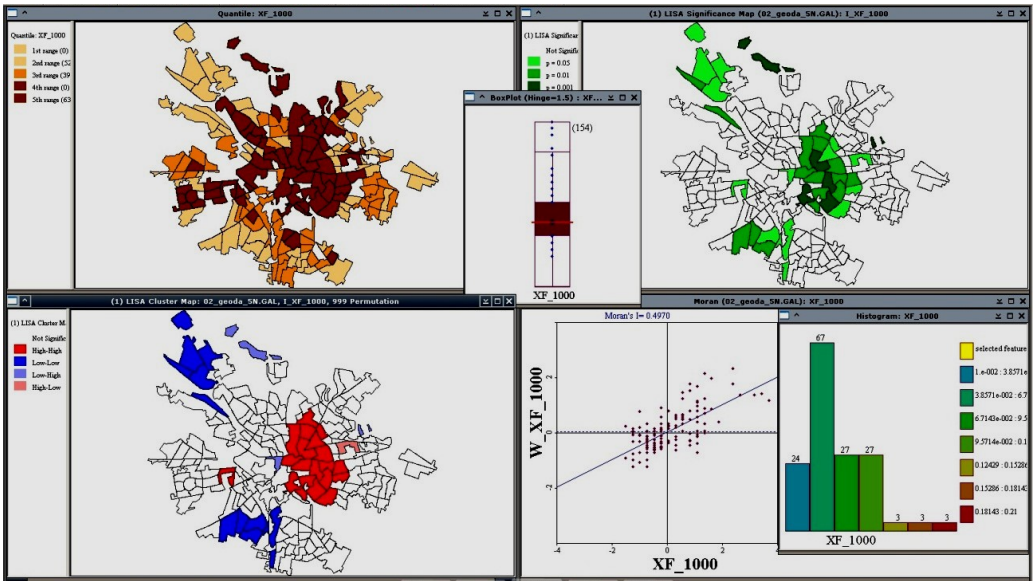

Fig. 2 **– The distribution and clustering of business women in Bucharest by district (2002)**

In order to try to explain this distribution of women entrepreneurs (Y) in 2002, we correlated five other demographic characteristics: the proportion of women with university studies (X1), the proportion of women in service occupations, the proportion of women in industry (X3), women

having more than three children (X4), and the unemployment rate (X5). The matrix of Pearson coefficients for these variables shows that there is a direct correlation, relatively significant, with the population having university studies (Table 3), and there are much weaker inverted correlations with the women's occupation in industry and services. The R^2 test confirms a connection between women with university education and business women. This finding is supported by interview data, which indicate that in the last eight years this correlation has become much more significant. There is a clear segregation between women managers/ employers and women workers from the services field. There must be mentioned that, at the beginning of the transition period, the correlation was positive, while most of business women were developing their activity in small firms centred upon ordinary commerce.

Table 3

Pearson correlation matrix

	Y	X1	X2	X3	X4	X5
Y	0	0,523	-0,454	-0,474	-0,390	0,103
X1		0	-0,837	-0,844	-0,793	0,204
X2			0	0,997	0,885	-0,313
X3				0	0,881	-0,327
X4					0	-0,415
X5						0

Source: processed data

Placing Women Entrepreneurs in a Neighbourhood Context

We conducted telephone interviews with 50 women entrepreneurs between January and February 2009. There have obviously been changes between 2002, the last year for which census data were available, and the time of the interviews, but our findings based on the residential location of those interviewed are consistent. Women were asked to indicate their age, level of education, length of time in business, where they received their ideas for their capital from, the size of their businesses, the scope of their business (city-wide, Sector wide, or limited to a neighbourhood), and their future plans. In the wealthier Sectors of the city, 60% of businesses owned by women operated at a level beyond the neighbourhood, with city-wide services including consultancy, design, and architecture, the beauty industry, the arts, or retail sales of imported goods. Not surprisingly, those in the wealthier neighbourhoods have higher levels of education (at least high school, and over a third with higher education), stronger capitalization from both family sources and banks, and larger operations, some even multinational in scope. The majority of these businesses involved more than ten employees. They also had more expansive plans to develop their businesses over time.

In the poor Sectors, 80% of women entrepreneurs operate only at neighbourhood level, with smaller operations, the majority having three or fewer employees. Over 92% of the firms belonging to women who live in poor districts are centred upon food and non-food commercial activities, and food services. Very few of those operating at neighbourhood level had higher education than a high school degree, and about one quarter of women had not graduated from high school. Interestingly, the majority of those operating at neighbourhood level received their inspiration and support from others (usually husbands, sometimes parents), while those in the wealthy areas relied upon their own ideas, a finding that makes sense given their higher levels of education and training.

Conclusion

Our study of the distribution of business women in Bucharest shows the capacity of the female population to develop entrepreneurial activities in the two decades of transition from a centrally planned economy, as well as the speed at which this development has occurred. In a city whose population doubled over the first transition and where the service and commercial sectors grew very rapidly, women entrepreneurs were an important part of economic development trends. The women's business sector has played an increasingly important role in restructuring the city's economic base. As the market economy developed, business women have tended to concentrate in the central areas, where both their residences and their firms are located. The result is an increasing gap between the socio-economic circumstances of the central city, where the wealthy are concentrated, and the suburbs that were built during the period of socialist industrialization. This process has reinforced social segregation across the urban districts.

The story goes beyond spatial distribution, however, and it shows the need to distinguish among different types of entrepreneurial activities for different residential areas of the city. Those in the wealthier, architecturally attractive central neighbourhoods take advantage of the greater access to financial capital (from both banks and family), as well as to higher levels of human capital, mainly through education, and access to a larger market and a much larger scope of operations. Those in the poorer, peripheral areas operate more locally, in much smaller-sized firms, usually having one-two employees catering to the needs of the neighbourhood inhabitants. Our 2009 interviews, although based on a relatively small sample, would indicate that the process of social segregation is becoming both more pronounced and more strongly spatially concentrated.

Our findings are preliminary and indicate the need for much more extensive research on the conditions in different neighbourhoods, and more in-depth qualitative work on the experiences of women entrepreneurs, including the importance and availability of education, the role of family members in providing support, and the significance of the slippery issue of cultural capital in providing the means, the motivation, and conditions of success for the women entrepreneurs. Our findings also echo those of other international studies that show that women's entrepreneurial activities are an important part of the economic development, but that a re-framing of entrepreneurship as social change (Calás et al. 2009) is required in order to understand the various kind of changes that women's activities bring, especially in the context of the transitional socialist city, where a wide range of changes are taking place simultaneously. We can tentatively say that the built form of the city, especially in terms of the inherited architecture, is a very important aspect of social differentiation, and that once the process of socio-economic segregation quickens it tends to reinforce very quickly the differences that occur across the city.

Our results lead us to suggest that entrepreneurial activity is not itself, therefore, a panacea for improving the conditions of women in the city. Women in poorer neighbourhoods seem to have a much strong spatial mismatch (not surprisingly) as they operate in locales farther from the economic centre, while women in the wealthier districts benefit in fact from the concentration of economic and social advantages. In the case of Bucharest, the spatial mismatch is xacerbated by the fact that the higher quality of housing and financial resources is concentrated in the central city as opposed to the suburban areas that were developed during a period of centrally planned industrialization and have suffered a decline since the economic transition began.

In terms of public policy, our findings suggest, along with a number of other studies that we cited earlier, that access to education is of key importance, but so is the access to capitalization. Beyond public policy, however, we can suggest a need to examine further the

less tangible factors that include the qualities of the neighbourhood environment, the role of family support (without which we suspect that women in poorer neighbourhoods would have a much more difficult time), and the importance of cultural capital as a basis for entrepreneurial development.

References

AL-HOSSIENIE C. A. (2011), *Socio-Economic Impact of Women Entrepreneurship in Sylhet City*, *Bangladesh*, BDRWPS 12, 1-22.

ANSELIN L., SYABRI I., KHO Y. (2006), *GeoDa: An introduction to spatial data analysis*, Geographical Analysis 38 (1), 5-22.

ARAPOGLOU V. P., SAYAS J. (2009), New facets of urban segregation in Southern Europe: gender, migration and social class change in Athens, European Urban and Regional Studies 16 (4), 345-362.

AUDRETSCH D. B., KEILBACH M. C., LEHMANN E. E. (2006), *Entrepreneurship and economic growth*, Oxford University Press, Oxford.

BOYER K. (2006), *Introduction: Gender, space and technology*, ACME: An International E-Journal for Critical Geographies 5 (1), 1-8.

BRUNI A., GHERARDI S., POGGIO B. (2004a), *Doing gender, doing entrepreneurship: an ethnographic account of intertwined practices*, Gender, Work & Organization 11 (4), 406-429.

BRUNI A., GHERARDI S., POGGIO B. (2004b), *Entrepreneur-mentality, gender and the study of women entrepreneurs*, Journal of Organizational Change Management 17 (3), 256-268.

BRUSH C. G., CARTER N. M., GREENE P. G., HART M. M., GATEWOOD E. (2002), The role of social capital and gender in linking financial suppliers and entrepreneurial firms: A framework for future research, Venture Capital: An International Journal of Entrepreneurial Finance 4 (4), 305-323.

CALÁS M. B., SMIRCICH L., BOURNE K. A. (2009), *Extending the boundaries: Reframing "entrepreneurship as social change" through feminist perspectives*, The Academy of Management Review 34 (3), 552-569.

COURT K. L. (2012), *Mapping the economic contribution of women entrepreneurs*, International Journal of Business and Social Science 3 (1), 136-144.

DIAZ MUÑOZ M. Á. (1995), *Género y estructura urbana en los países occidentales*, Anales de Geografía de la Universidad Complutense 15, 267-279.

DRAGUSIN M. (2007), *National and regional women entrepreneurs' network*, Romanian Journal of Regional Science 1 (1), 81-90.

ENGLAND K. V. L. (1991), *Gender relations and the spatial structure of the city*, Geoforum 22 (2), 135-147.

GAMARNIKOW E. (1978), *Introduction to Special Issue on Women and the City*, International Journal of Urban and Regional Research 2 (3), 390-403.

GAVRIȘ A. (2010), *Elements of the urban image in large habitats of Bucharest*, Journal of Urban and Regional Analysis 2 (1), 71-80.

GLAESER E. L. (ed.) (2010), *Agglomeration economics*, The University of Chicago Press, Chicago.

GLAESER E. L., ROSENTHAL S. S., STRANGE W. C. (2010), *Urban economics and entrepreneurship*, Journal of Urban Economics 67 (1), 1-14.

GRABHER G., STARK D. (eds.) (1997), *Restructuring networks in post-socialism*, Oxford University Press, Oxford.

HANSON S., PRATT G. (1995), *Gender, work and space,* Routledge, London.

HOOD J. N., THOMPSON J. K. (1994), *Care and connection: A study of gender differences in charitable contributions of small businesses*, Journal of Business and Entrepreneurship 6 (2), 73-89.

HORDAU A.-M., POP SITAR C. (2009), *Some aspects regarding the position of Romanian female into the labour market*, The Annals of University of Oradea. Economic Science Series 18 (2), 367-369.

IANOȘ I. (2000), *Potenţialul economic al teritoriului ői dezvoltarea sectorului antreprenorial în România*, Terra 2, 64-70.

IZYUMOV A., RAZUMNOVA I. (2000), *Women entrepreneurs in Russia: Learning to survive the market*, Journal of Developmental Entrepreneurship 5 (1), 1-20.

KOBAYASHI A. (ed.) (1994), *Women, Work and Place*, McGill-Queen's University Press, Montreal.

LOSCOCCO K. A., ROBINSON J. (1991), *Barriers to women's small-business success in the United States*, Gender & Society 5 (4), 511-532.

MACKENZIE S. (1986), *Women's responses to economic restructuring: Changing gender, changing space*, in: Hamilton R., Barrett M. (eds.), The politics of diversity: feminism, Marxism and Canadian Society, Verso Press, London, pp. 81-100.

MARCIŃCZAK S., SAGAN I. (2011), *The Socio-spatial Restructuring of Lodz, Poland*, Urban Studies 48 (9), 1789-1809.

MAYER H. (2008), *Segmentation and Segregation Patterns of Women-Owned High-Tech Firms in Four Metropolitan Regions in the United States*, Regional Studies 42 (10), 1357-1383.

MCDOWELL L. (1997), *Capital Culture: Gender at Work in the City*, Blackwell, Oxford.

PICKLES J. (ed.) (2008), *State and society in post-socialist economies*, Palgrave Macmillan, London.

PICKLES J., SMITH A. (eds.) (1998), *Theorising Transition: The political economy of post-communist transformation*, Routledge, London and New York.

PRATT G. (2004), *Working feminism*, Temple University Press, Philadelphia.

PRESTON V., MCLAFFERTY S. (1999), *Spatial mismatch research in the 1990s: progress and potential*, Papers in Regional Science 78 (4), 387-402.

ROSE D. (1987), *Un aperçu féminin sur la restructuration de l'emploi et sur la gentrification: le cas de Montréal*, Cahiers de géographie du Québec 31 (83), 205-224.

ROSENTHAL S. S., STRANGE W. C. (2012), *Female Entrepreneurship, Agglomeration, and a New Spatial Mismatch*, The Review of Economics and Statistics 94 (3), 764-788.

TRETTIN K. (2006), *Ontology and Feminism*, in: Deborah O., McAlister L. L., Kahl E., Earle K. (ed.), Belief, Bodies, and Being: Feminist Reflections on Embodiment, Rowman & Littlefield Publishers, Oxford, pp. 49-58.

UBOGU A. E., AYA H., NWACHUKWU U. (2010), *Gender and intra-urban transport in Sabon-Gari area of Zaria, Kaduna State*, Current Research Journal of Social Sciences 2 (3), 133-137.

WEKERLE G. R. (1984), *A woman's place is in the city*, Antipode 16 (3), 11-19.

WELSH D., DRAGUSIN M. (2006), *Women-entrepreneurs: A dynamic force of small business sector*, Amfiteatru Economic 8 (20), 60-68.

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GOVERNANCE, URBAN COMPETITIVENESS AND CRISIS IN SPAIN

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Abstract: This article describes the rise of the term governance from its beginnings in the business world and the neoliberal economic thought through its application in urban renewal actions in the world's major cities. Over the analysis, we argue that it was the theoretical discourse of urban governance and competitiveness that for decades enabled the private property sector to direct the urban regeneration processes of greatest added value. Changes in transport infrastructures and the abandonment of old industrial facilities left large central segments of the city available for redevelopment in line with the theories of post-Fordist capitalism. The global economic crisis has paralysed many of these projects, which had entailed the investment of large sums of public money and yielded low social returns. At the same time, criticism has been levelled against governance and strategic planning. Here, I examine the processes of governance and competitiveness as an urban objective and recent examples of urban renewal in Spanish cities.

Key Words*: governance, strategic planning, competitiveness, urban renewal.*

Introduction

Many cities in developed countries have witnessed urban renewal processes in recent decades, but in Spain the phenomenon has spread to the entire urban system. These types of action are usually promoted by public-private consortia whose partners seek different objectives: public entities aim to improve an area of the city in crisis, while private entities hope to obtain the greatest possible financial return, all within systems of urban governance in a context of competitiveness (Harvey 1989, Swyngedouw 2005, Alcalá-Santaella et al. 2011).

Urban planning, too stringent for these speculative interests, did not offer a satisfactory regulatory instrument and thus a new, more flexible and ambitious model was launched, known as strategic planning. The aim of this new approach was to promote public-private partnerships that combined the interests of the public and private sectors. This was an ambitious goal seeing that the public authority sought to achieve social returns and the private investors to maximise profits (Asworth and Voogd 1990, Swyngedouw 2005). The challenge was to merge both positions in order to increase residents' quality of life; however, rather than "socialising" private sector's objectives, cities became converts to the tenets of business.

Thus, the renewal of cities was guided by two other theoretical discourses from the world of business: enhancing competitiveness and marketing (Ashworth and Voogd 1990). Mayors were expected to think like company managers, defining business models, studying how to become more competitive and creating marketing campaigns to rebrand their product.

In the urban transformation projects launched in the United States in the 1980s (but which subsequently spread to the rest of the developed world), renewal was promoted in a given central area, which became the site of a new emblematic feature with an avant-garde design that aspired to become the symbol of the new 21st century city. Renewal projects seek to catalyse a broader economic revitalisation process that will extend throughout the city;

however, the first consequence is an increase in house prices in the surrounding residential area, and gentrification. In effect, public investment paves the way for private profit and social exclusivity (Harvey 1989).

The first city in Spain to adopt this model was Barcelona; not in vain had the city organised the first meeting of American and European cities in 1993 to exchange experiences of strategic planning, with a formidable list of participating institutions, including the World Bank, the Inter-American Development Bank and the European Commission. Nonetheless, with the renovation of the Nervión estuary and the inauguration of the Guggenheim Museum in 1997, it was Bilbao that proved the definitive spur to widespread the adoption in Spain of the cultural tourism model of urban renewal, a local variable that brings together tourism, property speculation, international architecture and high cost overruns (Somoza Medina 2013).

Governance, strategic plans and urban competitiveness

The term “governance” began to spread at the end of the 1970s in relation to the policies, management and internal administration of private enterprise (*corporate governance*), and it was used by neoliberal schools advocating the extension of economics methods to the rest of the social sciences (García 2009). Later, the term was used by the Institute for International Economics think tank, responsible for promoting the so-called Washington Consensus that in turn prompted the World Bank and the International Monetary Fund to stop lending to poor countries unless they established systems of governance, i.e. new methods of government characterised by effectiveness and efficiency, which reduced spending by implementing social cuts. Since then, the strategies for combating poverty adopted by these international bodies have involved intervention in the national economies of recipient countries, imposing severe economic adjustment programmes. In referring to better governance in the November 1989 report on sub-Saharan Africa, the World Bank linked governance directly to development, as did the OECD shortly afterwards (Rojo Salgado 2009).

In the 1990s, the United Nations Development Programme (UNDP) softened the term by speaking instead of “good” governance, which would be generated by demanding less state intervention in channelling financial assistance to undeveloped countries and greater participation of “civil society”. This would reduce excessive verticality in international cooperation models and facilitate horizontality, introducing the private sector and the third sector into decision-making processes in collaboration with the public sector.

In 2001, it was the turn of the European Commission to designate governance as the ideal operational model for Community institutions, and by extension, all other local, regional, state and international public institutions. The white paper defined European governance as the regulations, processes and behaviours that affect the exercise of authority at European level, particularly from the point of view of openness, participation, responsibility, efficiency and coherence (European Commission 2001).

Jan Kooiman (1993) has stated that the only way to govern dynamic, diverse and complex socio-political systems democratically and effectively is to incorporate the dynamism, diversity and complexity of our societies. Cultural, political and economic globalisation, the new postmodern society, the crisis, in sum the troubled world in which humans have lived since the end of the 20th century all seem to lead inexorably to the need for a new system of government, called governance, in which the owners of capital no longer need to hide behind politicians but can stand right beside them and guide public policy. In the words of Enrique Conejero Paz (2005), governance emerged in a scenario of institutional fragmentation, a network of complex public policies, and nebulous boundaries between the public sector, the private sector and civil society. Some authors even speak of governance without government (Rosenau and Czempiel 1992, Rhodes 1996) (think of the case of Greece or Italy), or of the

democratic legitimacy of governance (Martínez Brouchoud 2010).

The increasing complexity of urban policies and public management has changed the traditional formulas of urban government, ushering in the spread of the term "urban governance" (Rodríguez et al. 2001, Blanco and Subirats 2012). Cities are governed by structural relationships between traditional organs of local government, private sector institutions and associations, NGOs and citizens. Following a productivist model and guided by the criteria of efficiency in the provision of services and the subordination of redistributive social objectives to the imperatives of competitiveness and the promotion of economic growth, urban governance fosters decentralisation and the fragmentation of responsibilities (Jessop 1997, Swyngedouw 2005).

Governance, therefore, is a polysemic and ideological concept of neoliberal origin which is aimed at normalising the creation of public-private partnerships responsible for directing the policies, projects and management of democratic institutions (García 2009). This model has been gradually adopted by political institutions in a hierarchy from greater to lesser complexity, from global relations between the rich and poor countries, through supranational continental agencies, to central, regional and local government, first in the large cities and then in the rest. There has been a similar shift from territorial governance to urban governance, physically visible in the renewal processes that have taken place in major cities over the past three decades.

Architects and geographers have analysed the transformations brought on cities around the world since the pioneering examples in the 1980s. Large-scale urban intervention in empty spaces in cities began in the United States in places such as Baltimore, Cleveland and Pittsburgh, and later spread to the rest of the world, and cases have been studied in numerous cities (Davies and Townshend 2002, Pacione 2004, Pack 2004, Murayama and Du 2005, Lois González 2006, O'Donoghue 2014). In all of them, interventions have been linked to strategies aimed at rebranding and promoting the city in question, in a bid to boost urban competitiveness and to attract future investment.

The model was almost always the same: urban interventions were carried out in decaying areas that had been abandoned due to industrial decline, decentralisation and productive restructuring or changes in the major transport infrastructures, in order to create appealing spaces that were attractive to the market, a new and exclusive urban area which was supposed to represent the entirety of the city's image in the 21st century (Etulain 2008). In order to create new focal points, these urban projects have combined productive, residential, commercial, cultural and leisure uses and have incorporated a series of recurrent features designed along the same lines: emblematic buildings, the conversion of public space into spectacle, conference centres, cultural and tourism infrastructures, theme parks, festivals and other international events, all with the same goal of urban promotion and marketing (Somoza Medina 2013).

Major interventions were always initially advertised as self-financing projects that would generate income through rising land prices and the consequent contribution from large companies in the property sector. In reality, however, such projects usually incurred significant cost overruns that were met by local, regional and central government, but never by the construction companies that were the real beneficiaries of the venture (Somoza Medina 2013).

As long ago as 1989, David Harvey levelled criticism at these large urban projects because they employed direct public investment and fiscal and financial incentives to stimulate private investment, evidencing the change of direction in planning priorities and urban policies, which were now marked by the rise of a post-Keynesian style of government that embraced a corporate approach through the adoption of business methods by government institutions. As a

result, large cities were managed as if they were businesses, and rather than attending to residents' needs, the goal was to be competitive in the network of international flows (Harvey 1989).

Strategic planning helped consolidate this vision of large urban projects as being the driving and guiding force behind urban development within the framework of a non-sequential, dialectic relationship between objectives, strategies and projects, a model that made it possible to circumvent stringent urban planning criteria and imbue urban government with the language and ideology of business. This strategic reorientation towards corporate urbanism thus assumed the existence of competition between cities, and consequently pursued competitive advantages in an attempt to project the image of a dynamic, innovative, stimulating and creative city capable of successfully competing to attract new productive investments and consumers, whether tourists or new residents (Swyngedouw 2005).

The paradox is that the recurrent repetition of the same instruments and artefacts, from architectural design and the choice of "starchitects" to promotional slogans, reintroduced uniformity and non-differentiation among what were intended to be exclusive flagship projects. Rather than enhancing differences, these projects wound up creating similar landscapes (Harvey 1989).

Attempts to address the growth crisis cities faced in the late 20th century were based on creating new combinations of economic factors that would render them more competitive, and such approaches were termed "urban entrepreneurialism", "corporatism", "entrepreneurship" or simply "governance" (Jessop 1997, Hall and Hubbard 1998, Jouve 2005).

The new urban agenda adopted a proactive, dynamic and entrepreneurial style, seeking opportunities where the public and the private sectors could undertake joint actions, and the term "competitiveness" was widely and excessively reiterated to justify large investments that lacked proper planning or a detailed analysis of their real future impact (Lois González 2010).

The rhetoric of competitiveness prompted local authorities to embrace a policy of attracting external investment rather than focusing on enhancing their own resources (González 2007). The new urban policies reflected the priority given to urban growth and regeneration while subordinating social objectives to the logic of competitiveness. As neoliberalism spread, large cities began to be guided solely by this criterion (Somoza Medina 2007), resulting in transformations that some urban scholars have described as the creative destruction of the neoliberal city (Theodore et al. 2009). The goal of local corporations was to enhance the city's capacity to successfully face global competition, but this became a never-ending task.

These approaches were modified by the economic crisis that erupted in 2007 in the United States and had become global by 2008. Large urban projects slowed down or were struck off the agenda, and paradigms other than governance took a centre stage. Concepts such as the *creative city*, *smart city*, *shrinking city*, *citta slow* or *urban resilience* began to dominate the academic and political urban scene (Méndez 2012).

Urban renewal projects in Spain. The spread of the "Guggenheim effect"

In Spain, there are two models of successful urban renewal that have served as the mirror in which all other cities wished to see themselves reflected. The renovation of Bilbao's image with the inauguration of the Guggenheim Museum (1997), and the Olympic Barcelona's new maritime front (1992) and forum (2004), created a delusory vision of Spain at the turn of the century.

In a favourable economic and financial climate, public-private governance and strategic

planning of large investments and new symbols of both cities created sufficient impetus to reinvent them. However, the passage of time has revealed glimpses into the darker side of these projects and several criticisms have targeted both Bilbao's Guggenheim model (Rodríguez 2001, Vicario and Martínez Monje 2003, González Ceballos 2004, Plaza et al. 2010, Mas Serra 2011) and the Barcelona model (Capel 2005, Casellas 2006, Delgado 2007, Blanco Fillola 2009, Borja 2009). These studies have called into question the gains achieved in recent years from urban renewal and governance in both cities, claiming that the main beneficiaries of huge public investments disbursed at different levels of government in order to "reinvent" Barcelona and Bilbao were the interests of capital and especially the property sector, while the majority of residents became the victims of spatial segregation due to soaring prices.

In spite of this, the other major Spanish cities attempted to copy these models. Valencia completely renovated a former slum to create the City of Arts and Sciences, designed by the architect Santiago Calatrava; Zaragoza reinvented itself with the Expo 2008 World Fair and a series of new buildings and infrastructures in the Ebro valley; while Seville's star project was the construction of the Isla Mágica theme park on the site of the Expo 1992 World Fair. Meanwhile, Madrid unveiled a new skyline in 2008 punctuated by the four towers of the CTBA business district, built on the site of Real Madrid's former training complex, while also projecting a much more ambitious intervention in the same area, around Chamartín railway station.

However, the spread of this model, of converting the city into spectacle, was not limited to big cities, as we can mention other "singular" projects of a similar scale and level of investment as those of the large metropolises, such as the Circus City in Alcorcón, the City of Light in Alicante, the City of the Environment in Soria, the Oscar Niemeyer Cultural Centre in Avilés and the City of Culture in Santiago de Compostela. The flame of the Guggenheim model spread throughout the entire urban system, fanned by property speculators and estate agents with the connivance of local politicians, some corrupt and others simply naive. The same discourse was everywhere believed and applied, and it can be summarised as the need to put the city of "X" on the world map by means of an ambitious project for a new "Y" (airport, conference centre, sports stadium). This vital development would embody the new image of "X" in the 21st century and ensure its definitive international impact in the difficult globalised world of urban competitiveness.

Spain was an atypical case for the proliferation of these "celebrity" urban renewal actions. Each medium and even small-sized city wanted to have its own "Foster", "Hadid", "Eisenman", "Ghery", "Nouvel", "Koolhaas", "Piano", "Chiperfield", "Isozaki", "Ito", "Rogers", "Perrault", "Calatrava", "Moneo", "Herzog & De Meuron" and so on, until completing the list of celebrity architects. These all have works in Spain. Dozens of cities hired leading figures from the international pantheon of architects, regardless of the lack of a functional need for such work, without taking into account the excessive investment involved, and without calculating the subsequent unaffordable maintenance costs (Moix 2010). The pretext of urban competitiveness generated an exorbitant increase in public spending at all levels of government, financed through bank loans. Although apparently contrary to the commandments of effectiveness and efficiency in spending promoted by neoliberal ideology, such extravagance sustained the mirage of urban renewal.

Public spending was so exorbitant that in return for the Spanish bank bailout, Europe demanded a drastic reduction in the public deficit, which by 2009 had reached 11% of the GDP. Austerity was imposed on the public agenda with sweeping cuts of all kinds, and urban governance was prohibited by law, or more specifically, from December 2013, all local governments in Spain were forbidden to establish new consortia or public-private entities (Government of Spain 2013). However, up until that moment the list of urban renewal projects had continued to lengthen.

Methodology

Analysis of interventions of urban renewal in Spain. Selecting Case Studies

To analyse cases of urban renewal in Spain following the model set by the examples of Barcelona and Bilbao, a study of 20 cities with different characteristics (Table 1) was performed. The differences between the study case cities are in terms of: population size (from Huesca with 50 000 inhabitants to Palma de Mallorca with 400 000 inhabitants); political and administrative range (capitals of autonomous community as Merida and Pamplona, provincial capitals like Leon and Cordoba, and other medium-sized cities without range of capital as Vigo or Cartagena); and location (coastal cities like A Coruña or Santander, interior cities as Oviedo or Jaen, and island cities such as Tenerife and Palma) (Fig. 1).

Table 1

Population and characteristics of analysed cities

City	2015 Population (no. of inhabitants)	Autonomous Capital	Provincial Capital
Palma	400 578	X	X
Alicante	328 648		X
Córdoba	327 362		X
Vigo	294 098		
A Coruña	243 870		X
Oviedo	221 870	X	X
Cartagena	216 971		
Tenerife	203 811		X
Pamplona	195 853	X	X
San Sebastián	186 095		X
Santander	173 957	X	X
Logroño	151 344	X	X
Lleida	138 542		X
León	127 817		X
Jaén	115 395		X
Toledo	83 226	X	X
Ciudad Real	74 427		X
Mérida	58 971	X	
Cuenca	55 428		X
Huesca	52 239		X

In selected cities, urban renewal projects of the last twenty years were studied, according to three types of actions. Firstly, the transport infrastructure projects were analysed, including railway stations and new railway layouts with the advent of high speed, the construction or renovation of airports, reforms in ports and boardwalks and building new bus terminals of modern design. Secondly, the projects included the creation of new museums modelled after the Guggenheim in Bilbao, and of cultural containers with spectacular forms localised in strategic places leading gentrification. And thirdly, the building of convention and exhibition centres, with the same characteristics as the previous case, was considered. Once these urban renewal operations were detailed, the creation of new housing neighbourhoods and the process of gentrification in relation to these strategic actions were analysed.

Fig. 1 **– Location of the 20 Spanish cities analysed**

The analysis of these interventions is reflected in the following table, which shows the extent of the phenomenon on the Spanish geography and the repetition of similar actions (Table 2). Some of the examples of public intervention and new residential areas created are explained in the following paragraphs.

Results and Discussion

Transport infrastructures

New transport infrastructures are the responsibility of central government in the case of ports and new high-speed train stations, whereas regional governments have played a major role in constructing or modernising airports with the aim of attracting tourists and creating employment. Spain currently has 46 airports, as many as France and the United Kingdom put together, although passenger volume at 13 of them did not exceed 40 000 people in 2015. The worst case is that of Ciudad Real airport, a private airport promoted by construction firms but with the financial backing of the regional government of Castile-La Mancha, which was aimed at competing with Barajas airport (Madrid), located just over 240 km away. Following an investment of 1 000 million euros, the airport has remained closed since April 2012 and a foreclosure sale is in process, although several auctions have been held without success, the last one with a minimum selling price of 56.2 million euros.

Table 2

Urban renewal projects in selected cities

City	Transport Infrastructures	Museums	Convention and exhibition centres	Gentrification and new residential districts
Alicante	X	X	X	X
Cartagena		X	X	
Ciudad Real	X	X	X	
Córdoba	X	X	X	X
Coruña	X	X	X	X
Cuenca	X	X	X	
Huesca	X		X	
Jaén		X	X	
León	X	X	X	X
Lérida	X	X	X	
Logroño	X	X	X	X
Mérida		X	X	
Oviedo	X	X	X	X
Palma	X	X	X	X
Pamplona	X	X	X	X
San Sebastián	X	X	X	X
Santander		X	X	X
Tenerife	X		X	
Toledo	X	X	X	X
Vigo	X	X	X	

Worldwide, Spain ranks second only to China for the number of kilometres of high-speed railway. In recent years, this has enabled many medium-sized cities to replace old railway stations with new, distinctively designed terminals as part of a project to renovate an area that includes the construction of luxury homes to recoup some of the costs, in imitation of the successful model implemented in the 1990s in Seville. In 2016, many of these projects have stalled, because with a stock of hundreds of thousands of empty homes and a stagnant market, the prospect of a self-financing initiative has proved to be a chimera. Such is the case for example of Ourense, where the construction of a new station designed by Norman Foster was supposed to be funded according to this financial model; however, the central government has now denied permission for the project.

Museums

Attracting cultural tourism is the main goal of the dozens of new museums that have sprung up in recent years in Spain, following directly in the footsteps of the Guggenheim Museum in Bilbao, whereby a feature boasting an avant-garde design is expected to be capable of generating a large influx of new visitors and a contemporary revitalisation of the local economy. Despite the attempts to repeat this model, the proliferation of this type of cultural receptacle has not prompted a substantial change in the economic dynamics of the promoting locations. Museums represent an increase in urban cultural attractions of which the local population mainly benefits, and it is only when they incorporate a series of characteristics related to excellence and uniqueness that they become capable of attracting external flows of any magnitude. Numerous recent examples in Spain include the cases of A Coruña and Jaén.

In A Coruña, a city in Galicia, five new exhibition spaces — three public and two private ones

— have been opened in recent years, significantly increasing the city's cultural attractions. The refurbished House of Sciences was joined in 1995 by the House of Man, in a building designed by the Japanese architect AarataIsozaki, in 1999 by the Finisterrae Aquarium, in 2003 by the Luis Seoane Foundation, in 2006 by the headquarters of the Abanca Foundation and in 2012 by the National Museum of Science and Technology. What had been launched as a modern and creative but entirely municipal initiative eventually became a dynamic generator of more buildings and new stakeholders. The project to renovate the city included other unique milestones such as the declaration of the Tower of Hercules (the only lighthouse of Roman origin still in use) as a World Heritage Site in 2009 or the complete refurbishment of the sea-front.

The museum project in Jaén was first mooted in 2001, when the now ex-mayor announced that the new International Museum of Iberian Art would be larger than the Guggenheim in Bilbao. However, due to various problems, the work did not start until August 2009, when the economic crisis had already paralysed many other initiatives throughout Spain. Located on the central site of the old provincial prison, the construction of the building grounded to a halt in 2012 due to irregularities and lack of funds. More than two years later, at the end of 2014, the work was resumed and the museum is scheduled to open in 2017. Costing 26.3 million euros, the new building will display exactly the same works that can already be seen today in the nearby Provincial Museum.

Convention and exhibition centres

The primary goal of buildings of this type is to attract what is known as congress tourism, as the capacity of these buildings outstrips by far the local demand. According to official data, 140 convention centres have been opened in Spain by 2012, and 20 more were under construction. One of these which has still not been completed is a convention and exhibition centre in León, designed by the architect Dominique Perrault and built with a budget of 76 million euros. The new building was to retain part of the structure of an old sugar factory in the western sector of the city, revitalised by a high-speed railway infrastructure. The most serious problem with this project is that León has already opened a new auditorium in 2002 with a capacity for 1 200 people, which is largely unused for the most part of the year. The works on the new centre began in 2011 with a projected completion date 24 months hence, but the project had to be rescheduled in 2014 due to a lack of public funds.

There are many other conference centres across the length and breadth of Spain as little justified as that in León. Another example is that of Villanueva de la Serena, a town in Extremadura with 26 000 inhabitants that has a convention centre which costs 13 million euros and it has a capacity for up to 800 people, even though the town is relatively close to the cities of Badajoz, Mérida and Cáceres, all three with their respective convention centres which together registered only 97 days of operation in 2011.

The convention and exhibition centre of Oviedo was also a project questioned since its inception. Designed by the architect Santiago Calatrava and located on the grounds of a former football field, the initial budget of 76 million euros was overflowed from various setbacks and claims to reach 360 million euros. The area where the new building is located has risen the housing price, driving apart the usual resident population, such as the students from the nearby university campus.

Gentrification and new residential districts

Neoliberal urban renewal projects are always accompanied by the construction of hundreds of homes in new sectors that have been rehabilitated with public money. This is the economic business spurring public-private partnerships that include the large companies in the property

sector. Public money is used to create exclusive new sectors with the cooperation and participation of large companies in the sector, which then benefit from the sole management of the resulting residential space, now worth much more than before. Usually, these processes revolve around one of the elements referred to in the preceding paragraphs, but occasionally, the urban renewal process focuses on the housing stock itself, which thus becomes the new flagship for the 21st century city due to its uniqueness. This process has occurred in a number of medium-sized Spanish cities, including Logroño and Toledo.

In 2006, the Logroño city council convened an international competition for the design of 682 subsidised dwellings, which was won by the Japanese architect Toyo Ito. The winning design resembles a chain of DNA, but the apartments were so small (35 and 56 m^2) that sales flopped and it was decided to carry out reforms to obtain more spacious dwellings by knocking the apartments together. Thus, a total of 468 dwellings went on sale in 2011; however, five years later and following a 25% reduction in the price, 65% of the apartments remain unsold.

The autonomous government of Castilla-La Mancha and the city of Toledo presented in 2008 what would be the "advanced neighbourhood", the new city of the future, designed by the architects Jean Nouvel and Mia Haeg, in which 2 000 subsidised dwellings would be built in houses of modern design. In 2011, the project was abandoned by the new governments that emerged after the elections.

In other cities such as Oviedo, Alicante, Leon and Cordoba, the reforms of the railway infrastructure with the arrival of the AVE allowed the existence of free urban land in the central sectors, on which to develop new housing projects of high value. These emerging new neighbourhoods respond to the model of public-private consultation where economic benefits are captured by real estate companies.

In the case of A Coruña and Palma, modern high-level residential quarters have been designed in relation to the creation of new public facilities. While in the case of Pamplona, Santander and San Sebastian, the most striking process has been the gentrification of large central sectors after urban regeneration processes carried out by public initiative, also with stellar landmarks as the convention and exhibition centre of San Sebastian, the new museum of contemporary art in Pamplona, both works of Spanish architect Rafael Moneo, or Botín Foundation Santander Center designed by the Italian architect Renzo Piano.

Of the 20 cities studied, only in 11 of them can be confirmed a direct relationship between the public performances of urban renewal and the new residential districts or gentrified central sectors, generating high economic benefits to the real estate sector. The global economic crisis and, in the case of Spain, the bursting of the housing bubble explain why in almost half of the analysed cities large housing developments have not been generated inside their urban renewal operations. In fact, in some cities, the demand for new housing was reduced even before the outbreak of the crisis, so the economic benefit for the construction companies was the urban action itself that was publicly funded.

Conclusions

As we have seen in this article, governance, strategic planning and urban competitiveness are far from innocent or innocuous terms. Governance is aimed at normalising the creation of public-private partnerships to implement strategic plans based on urban competitiveness that disregard urban planning standards. In short, the neoliberal model of governance imposes a vision of the city as a business that should concern itself exclusively with multiplying its income

in a highly competitive global market.

The physical expression of strategic planning and governance is embodied in major urban transformation projects, first launched in several cities in the United States to subsequently become a constant in the world's main cities since the 1990s. In the case of Spain, the two most significant cases of urban renewal in the 1990s, Bilbao and Barcelona, have been taken as a model for the rest of the national urban system in a process of "contagion" that very few cities have been able to withstand. This "fever" has endowed Spain with impressive works throughout the country, although many of these projects have been extravagant, unsustainable and ill-advised (Moix 2010).

Not all cases yielded negative results; in fact, the vast majority of urban projects generated important positive outcomes for the local residents, beyond the strictly economic aspects. It is also logical to assume that the new buildings or transport infrastructures that are still underused at present will yield greater social returns over time. Money has been unwisely invested, but it has not been lost.

The study conducted also shows that a certain demographic and economic level is necessary for the neoliberal model to generate new urban residential areas. Among the analysed cities, there are the cities with the largest demographic size which present more clearly this relationship. Just as the concentration of political power is important. In fact, cities with higher demographic weight have not developed these new residential areas such as Vigo or Cartagena, compared to other less populated but concentrated regional governments, provincial and municipal, as Oviedo, Pamplona, Logroño or Toledo. As for the location, the interior cities analysed generally have a lower urban dynamism than the coastal cities, a fact that can relate to the most significant tourist pressure of the latter.

The economic crisis hit many of these cities extremely hard, with the destruction of hundreds of companies and thousands of jobs and without the possibility of creating a public system of social protection in a context of cuts and funding difficulties. Incomplete urban renewal projects have been rescheduled, slashed or simply scrapped. Spain's specialisation in tourism continues to develop as a direct result of many of these projects, in a context of inter-city competition to attract new tourists and visitors, while the prevailing neoliberal ideology fails to address the needs of the local population.

The only plausible possibility at the beginning of the 21st century for redirecting the development of Spain's cities is to change the model (Somoza Medina 2013). Only in this way we can inhabit cities in which the system of urban government encompasses social empowerment, in which economic parameters are based on intrinsic potential, in which urban planning takes the needs of women, the elderly, youth and children into account, and in which the cultural ecosystem enables the development of talent and creativity without forgetting the roots that have shaped each city's unique personality: in sum, more caring, healthy and sustainable cities, which, while being perhaps less competitive, are certainly happier.

References

ALCALÁ-SANTAELLA F., DÍAZ ORUETA F., GINÉS SÁNCHEZ X., LOURÉS SEOANE M. L. (2011), *Una nueva agenda urbana para las grandes ciudades: crecimiento y competitividad*, in: Iglesias M., Martí-Costa M. (eds.), Políticas urbanas en España. Grandes: grandes ciudades, actores y gobiernos locales, Icaria, Barcelona, pp. 307-334.

ASHWORTH G. J., VOOGD H. (1990), *Selling the City: marketing approaches in public sector urban planning*, Belhaven Press, London.

BLANCO FILLOLA I. (2009), *Gobernanza urbana y políticas de regeneración: el caso*

de Barcelona, Revista Española de Ciencia Política 20, 125-146.

BLANCO I., SUBIRATS J. (2012), *Políticas urbanas en España: dinámicas de transformación y retos ante la crisis*, Geopolítica(s) 3 (1), 15-33.

BORJA J. (2009), *Luces y sombras del urbanismo de Barcelona*, UOC, Barcelona.

CAPEL H. (2005), *El Modelo Barcelona: un examen crítico*, del Serbal, Barcelona.

CASELLAS A. (2006), *Las limitaciones del «modelo Barcelona». Una lectura desde Urban Regime Análisis*, Documents d'Anàlisi Geogràfica 48, 61-81.

CONEJERO PAZ E. (2005), *Globalización, gobernanza local y democracia participativa*, Cuadernos Constitucionales de la Cátedra Fadrique Furió Ceriol 52-53, 13-31.

DAVIES W. K. D., TOWNSHEND I. J. (eds.) (2002), *Monitoring Cities: International Perspectives,* Graphcom Printers, Lethbridge.

DELGADO M. (2007), *La ciudad mentirosa: fraude y miseria del «modelo Barcelona»,* Los Libros de la Catarata, Barcelona.

ETULAIN J. C. (2008), *¿Gestión promocional o privatización de la gestión urbanística? Proyecto urbano Puerto Madero, Buenos Aires – Argentina*, Bitacora 12 (1), 171-184.

EUROPEAN COMMISSION (2001), *La Gobernanza Europea. Un libro blanco*, Publicaciones de la Comisión de las Comunidades Europeas, Brussels.

GARCÍA G. O. (2009), *La gobernanza: el «buen gobierno» neoliberal*, Sistema: Revista de ciencias sociales 212, 15-30.

GONZÁLEZ S. (2007), *Trepando por la jerarquía urbana: nuevas formas de gobernanza neoliberal en Europa*, UOC Papers. Revista sobre la sociedad del conocimiento 5, 6-12.

GONZÁLEZ CEBALLOS S. (2004), *The role of the Guggenheim Museum in the develo-pment of urban entrepreneurial practices in Bilbao*, International Journal of Iberian Studies 16 (3), 177-186.

GOVERNMENT OF SPAIN (2013*), Ley 27/2013 de racionalización y sostenibilidad de la Administración Local*, BOE 312, 106430-106473.

HALL T., HUBBARD P. (eds.) (1998), *The Entrepreneurial City: Geographies of Politics, Regime and* Representation, Wiley, Chichester.

HARVEY D. (1989), *From managerialism to entrepreneurialism: the transformation in urban governance in late capitalism*, Geografiska Annaler. Series B, Human Geography 71 (1), 3-17.

JESSOP B. (1997), *The entrepreneurial city: re-imaging localities, re-designing economic governance, or re-structuring capital?*, in: Jewson N., MacGregor S. (eds.), Realising Cities: New Spatial Divisions and Social Transformation, Routledge, London, pp. 28-41**.**

JOUVE B. (2005), *Cuestiones sobre gobernanza urbana*, Fundació Cales Pi i Sunyer, Barcelona.

KOOIMAN J. (ed.) (1993), *Modern governance. New government-society interactions*, Sage, London.

LOIS GONZÁLEZ R. C. (ed.) (2006), *Urban Changes in Different Scales: Systems and Structures,* Universidade de Santiago de Compostela, Santiago de Compostela.

LOIS GONZÁLEZ R. C. (2010), *Ordenación territorial y competitividad interterritorial: una relación compleja*, in: Rodríguez González R. (ed.), Territorio: ordenar para competir, Netbiblo, A Coruña, pp. 29-51.

MARTÍNEZ BROUCHOUD M. F. (2010), *Gobernanza y legitimidad democrática*, Reflexión Política 12 (23), 96-107.

MAS SERRA E. (2011), *La revitalización del Área Metropolitana de Bilbao: la gestión de Bilbao Ría 2000, aspectos territoriales*, Boletín de la AGE 55, 35-57.

MÉNDEZ R. (2012), *Ciudades y metáforas: sobre el concepto de resiliencia urbana*, Ciudad y Territorio: Estudios territoriales 172, 215-232.

MOIX L. (2010), *Arquitectura milagrosa*, Anagrama, Barcelona.

MURAYAMA Y., DU G. (eds.) (2005), *Cities in Global Perspective: Diversity and Tran-sition,* Rikkyo University & IGU, Tokyo.

O'DONOGHUE D. P. (ed.) (2014), *Urban Transformations: Centres, Peripheries and*

Systems, Ashgate Publisher, Farnham.

PACIONE M. (ed.) (2004), *Changing Cities,* Strathclyde University Publishing & IGU, Glasgow.

PAK M. (ed.) (2004), *Cities in Transition*, University of Ljubljana & IGU, Ljubljana.

PLAZA B., GÁLVEZ-GÁLVEZ C., GONZÁLEZ-FLORES A., MÁS SERRA E. (2010), *Arte y Economía, un matrimonio de conveniencia: el museo Guggenheim en Bilbao*, Scripta Nova 14, 323-339.

RHODES R. A. W. (1996), *The new governance: Governing without government*, Politi-cal Studies 44 (4), 652-667.

RODRÍGUEZ A., MOULAERT F., SWYNGEDOUW E. (2001), *Nuevas políticas urba-nas para la revitalización de las ciudades en Europa*, Ciudad y Territorio: Estudios territoriales 33 (129), 409-424.

ROJO SALGADO A. (2009), *Una aproximación al concepto de gobernanza*, in: Rodríguez González R. (ed.), Orde-nación y gobernanza de las áreas urbanas gallegas, Netbiblo, A Coruña, 3-27.

ROSENAU J. N., CZEMPIEL E.-O. (eds.) (1992), *Governance without Government: Order and Change in World Politics*, Cambridge University Press, New York.

SOMOZA MEDINA J. (2007), *Spanish virtual cities: Images, realities and city marketing*, in: Du G. (ed.), Tourism and Urban Transformation, Rykkyo University Press, Tokyo, pp. 93-110.

SOMOZA MEDINA J. (2013), *Gobernanza urbana, competitividad y procesos de renovación en las ciudades medias españolas*, Boletín de la AGE 61, 47-66.

SWYINGEDOUW E. (2005), *Governance innovation and the citizen: the Janus Face of Governance-beyond-the-State*, Urban Studies 42 (11), 1991-2006.

THEODORE N., PECK J., BRENNER N. (2009), *Urbanismo neoliberal: la ciudad y el imperio de los mercados*, Temas Sociales 66, 1-12.

VICARIO L., MARTÍNEZ MONJE P. M. (2003), *Another 'Guggenheim effect'? The generation of a potentially gentrifiable neigbourhood in Bilbao*, Urban Studies 40 (12), 2383-2400.

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ANALYSIS OF THE PUBLIC TRANSPORT PROVISION IN SUCEAVA-BOTOȘANI URBAN AREA (ROMANIA)

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Abstract: Having a major economic and social role, public transport is an important component in the process of sustainable development of a city. The paper aimed to study the public transport at metropolitan and regional scale evidencing how two major urban centers of Romania, Suceava and Botoșani, connect via public transport with the rural settlements in their metropolitan areas. The metropolitan supply of public transport was analysed starting with publicly available data on the routes in 2014 for both Botoșani County and Suceava County, located in the North-Eastern side of Romania. The routes' spatial disposition and daily frequency is analysed for road and rail public transport. The resulted mappings showed that road public transport is well distributed in the metropolitan territory for both urban centres, but there is still almost 4% of the rural population that does not have direct access to this public utility service. The rail public transport covers only a small amount of the studied area and it has a secondary role in supplying public transport services for the population because of the lack of investments that the entire rail sector suffered in Romania. The share of private cars has increased significantly, but the population's need for mobility is not completely covered and this paper offers some recommendations for the improvement of the public transportation supply in Suceava-Botoșani Urban Area.

Key Words: *metropolitan public transport, public transport provision, accessibility, Suceava-Botoșani Urban Area, Romania.*

Introduction

A city's accessibility is vital for its path in the global city competition as the services that it hosts must be in reach for the people than depend on it, either those services are educational, medical, or related to the provision of general or specific goods, jobs and many others. In this context, public transport is the best solution to ensure the mobility of the population, because it is an environmental friendly mode of transport and especially, as it is the case of Romania, because it represents a social service, being a cheaper alternative to private cars, thus more affordable for the low-income and medium class citizens (Lucas 2004).

Public transport (PT) is an important field of the transport industry in Romania, while urban PT and interurban PT have suffered a major decrease in usage and the quality of services (Fistung et al. 2004, Iordache 2009, Rădulescu et al. 2013). Also, the continuing decline of rail transport has brought the focus on the road public transport, which is cheaper and more flexible. Transportation and public transport constitute a framework and not a product (European Spatial Planning Observation Network 2004) while a good supply of PT services can bring positive externalities for the core city and for the communities that benefit from the good provision (Ong and Evelyn 1997, Sanchez et al. 2004, Rotem-Mindali and Gefen 2014).

The proper management of public transport takes into consideration the demand-supply relationship. There is a vast literature that researches how demand can be analysed and which focuses on the social characteristics of the people that can choose PT as a mode to commute (Kanafkani 1983, Oum et al. 1992, Pinjari and Bhat 2011) together with the economic state of a city or of a neighbourhood (Bresson 2004). In order to assess the demand for PT, statistical

data regarding the user and his location must be analysed (gender, age, employment status, income, car ownership, city size, population density, and urban versus rural location) together with the purpose of the trips (trips to work, school, for shopping, recreation, visiting friends and family) (Buehler and Pucher 2012). This paper does not cover the demand analysis for PT in the studied area, because complete and detailed needed data are not available at the used territorial scale.

Researchers consider demand more important than the supply of PT because demand comes first and it models the supply's characteristics. Many authors are researching ways to better understand the demand in order to provide better PT services. A good provision is marked by the ratio between good frequencies and economic sustainability. An analysis of the geographical coverage of the metropolitan and regional PT can provide valuable inputs for the policies that shape the provision of this type of services so that planners can adopt strategies for improving the accessibility and optimizing the PT (Murray 2001).

This paper studies the provision of metropolitan, county-level and regional road and rail public transport for the metropolitan areas of the cities of Suceava and Botoșani. In the first part of the paper, the studied area, the data sources and the methodology of the research are presented, followed then by the results of the research, first for road PT and after for rail PT. Some data regarding car ownership is presented and at the end, the conclusions and some recommendations for improving the provision of PT in the studied area are given.

Materials and methods

The study area is comprised of the two metropolitan areas belonging to two middle-sized cities – Suceava and Botoșani – situated in the North Eastern side of Romania. These cities developed together an associative form of governance called Suceava-Botoșani Urban Area (Fig. 1). This territorial association, gathering 30% (314 637 inhabitants in 2011) of the respective counties' total population and 50% of their urban population (212 257 inhabitants), includes 4 cities, of which 2 are municipalities, and 20 communes that have together 89 villages. Suceava-Botoșani Urban Area occupies 9% (1212.1 sq. km) of the total area of Botoșani and Suceava counties and the built-up area has a share of 11% of its total surface. Being an association to which members adhere voluntarily, a commune located near Suceava chose not to be a part of this organization due to political reasons, despite the fact that it has a significant role in the Suceava Metropolitan Area. This commune was included in the study area. The Inter-Community Development Association's goal is to make Suceava-Botoșani Urban Area the "most dynamic urban area at the eastern EU border, an economic, cultural and touristic competitive pole, accessible, sustainable and inclusive, attractive for its inhabitants, for tourists and investors, with an efficient governance and active and involved citizens" (Botoșani County Council 2015: 168).

The inter-city road PT is planned by the counties' councils which set the routes, the intermediary stations, the frequencies, the timetables, the required capacity of buses, being the same system as it is in Sweden (Jannson 1993) or in London (Amaral et al. 2009). After this process is completed, the related data are introduced in an IT platform called „Informatics system for electronic assignment of freight transport permits and for electronic assignment of the national routes of regular passenger transport services for counties and inter-counties" (acronym S.A.E.T., in Romanian) which is in the attribution of a governmental agency. This platform is an auction system where the counties' councils introduce the named parameters and the private passenger operators can bid for the desired routes while the winner of a route is assigned according to a methodology established by law. Also, the firms that win the bids must get a transport license from the counties' administration. The established program of the county public transport is available for 5 years but the county's administration can modify it by introducing new routes, or by modifying the frequencies, the timetable or the

transportation capacity of certain routes. The city of Suceava is the administrative residence of Suceava County and the city of Botoșani is the administrative residence of Botoșani County, therefore, when it comes to planning the county and regional public transport we have two distinct bodies that decide which bus goes where and how many times in a day.

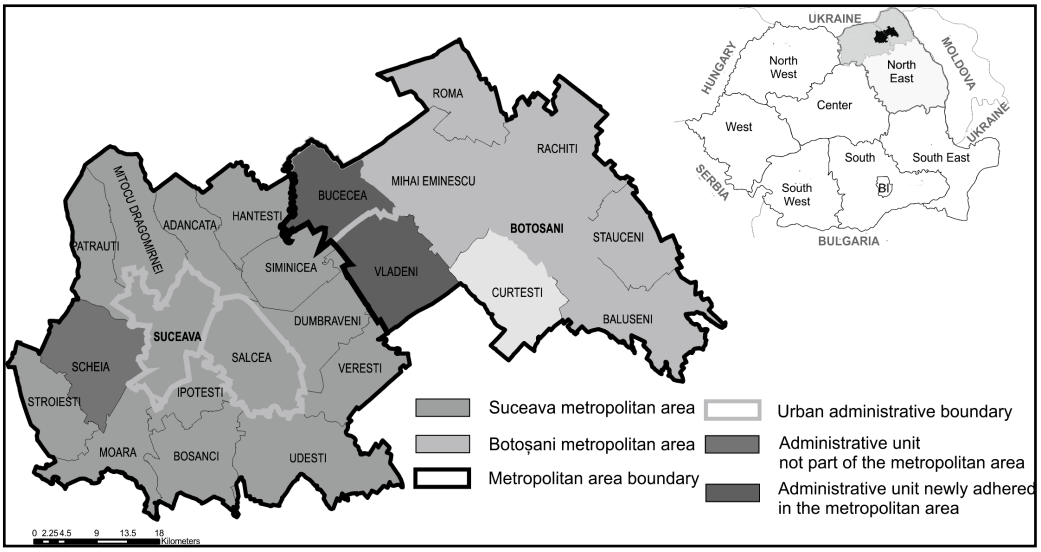

Fig. 1 **– The localization and the administrative components of uceava-Botoșani Urban Area**

The data sources for the metropolitan road PT are the publicly available data hosted by the portal data.gov.ro, a governmental open data portal, where there is available the nationwide information regarding the county and inter-counties PT. This data was confronted with the information found on the internet page of the County Council of Suceava and the County Council of Botoșani. After some tweaks, the spread-sheet was GIS compatible. After all the routes were mapped in ArcGIS (Fig. 2), using the Network Analyst tool, they were split at the intersections of the road net-work and the resulted segments had the cells that contained the attribute with the number of routes added, so that each road segment now had an attribute with the number of daily routes that is transited. The road PT routes are for 2014-2019 period.

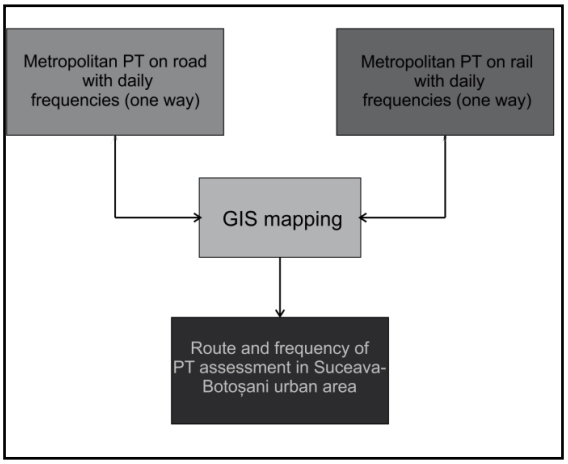

Fig. 2 **– The methodological approach of the research**

The same approach was used for mapping the rail transport; the difference for the rail mode is that they are operated by a single company – the National Railway Passenger Transportation

Company "C.F.R. Călători S.A.", which provides on its website the timetable and statistic information for the stations. For rail public transport, the timetable for 2015-2016 period was used.

Results and discussion

The current assessment of the PT supply in the Suceava-Botoșani Urban Area has the same accuracy as the data that were used for the analysis. However, the research showed that not all the routes that are in the cited data sources are actually operated and in some cases the daily frequencies are lower than in the official documents while, most often, the capacity of a route is lower in reality than it was required at the auction to implement it. These inconsistencies were discovered during the field research and they make the assessment presented in this paper to be not 100% accurate. Also, it must be taken into consideration that the routes suffer permanent changes, at the initiative of local authorities or private entities. Another matter that influenced the final results is that the mapping included the routes between Suceava and Botoșani and other major cities in Romania because, in the majority of cases, they provide public transport services for the settlements near their origin and destination, and therefore act as a metropolitan PT provider. The number of these routes is not so high while only a few trips per day are made.

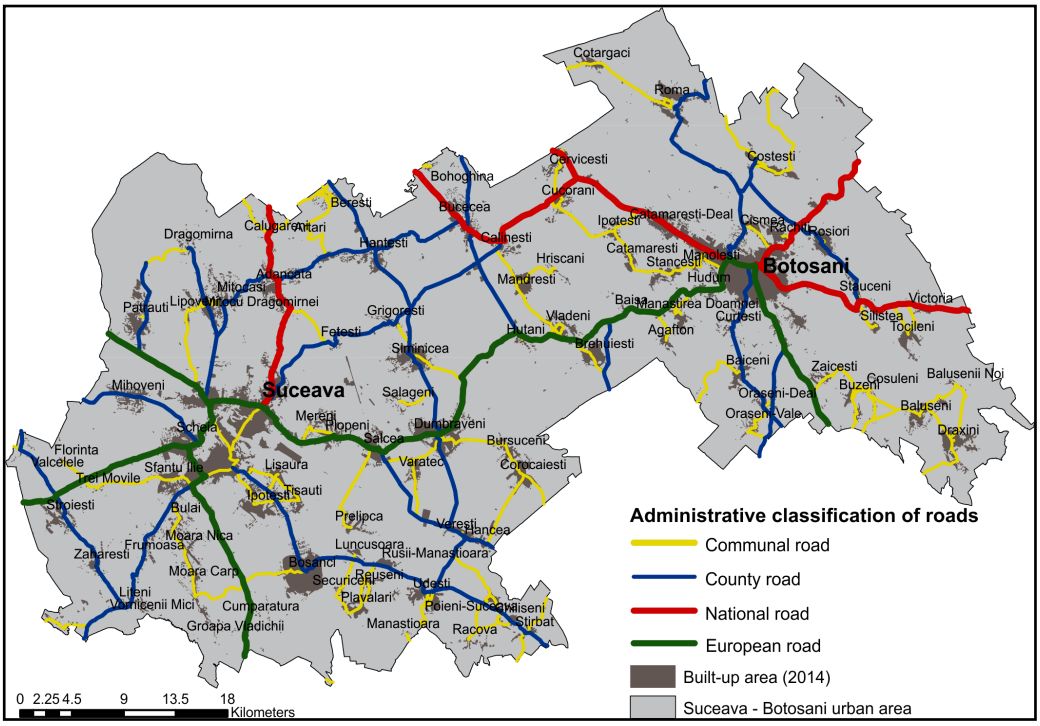

Fig. 3 **– The administrative classification of public roads in Suceava-Botoșani Urban Area**

The mapping was done using the public road network from the studied area (Fig. 3), which is quite dense in roads (54 km/100 sq. km.), while the average density in Romania is only 34 km/100 sq. km (National Institute of Statistics 2013). The mapped geographical distribution of the road PT in the studied area is shown in Figure 4.

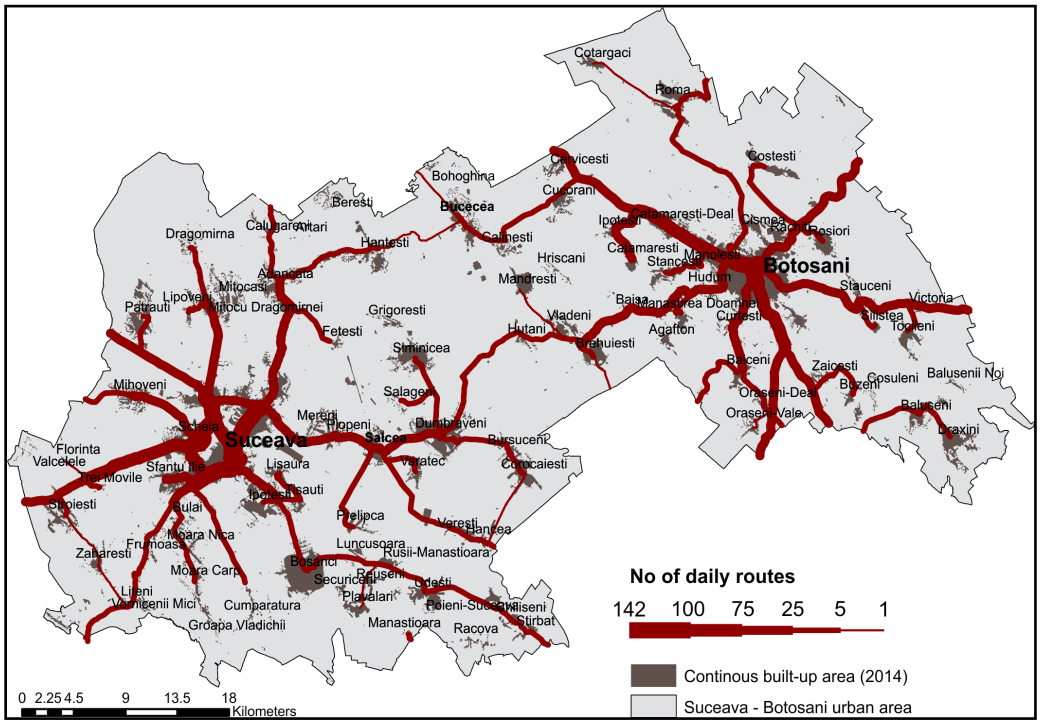

Fig. 4 **– The geographical distribution and daily frequency of metropolitan public transport in Suceava-Botoșani Urban Area**

The mapping shows that there is a clear delimitation between the two transport systems, given the fact that the PT is planned separately by two administrations, while the distinct role that each city is holding in its territorial system becomes obvious. Botoșani and Suceava are the main cities in their counties and PT is planned accordingly, the origin of the majority of bus lines being in these two cities.

The PT system is not planned as a metropolitan system, but as a county system while the fact that good frequencies are assured for the journeys inside the metropolitan area is due to the proximity of the main city. Also, the topology of the network makes a settlement to be transited by more routes (von Ferber et al. 2009, Abundo et al. 2013). Most of the routes with high frequency connect the two administrative residences with the other cities in the county, but there are some routes that confer to these systems a metropolitan particularity. There are a significant number of routes that are short in distance, but have a very high frequency. For example, the highest frequency in Botoșani metropolitan area is for the route Botoșani-Ipotești-Cătămărăști, a route that is only 8-kilometers-long but that has a frequency of 31 buses per day in one way. For the case of Suceava metropolitan area, the route Sfântu Ilie-Iței-Pătrăuți can be mentioned, having 15 kilometres in length and a frequency of 23 buses per day in one way. The frame network for road PT influences the number of transits, the national and European roads being the most utilized roads that are transited by the regional and metropolitan PT.

The road PT connection between the two major cities is surprisingly weak, being of only 21 one way. These daily routes connect the two cities that both have more than 100.000 inhabitants and that are at a distance of 40 km. from each other. From the data analysis of these routes,

only 7 of them are in direct connection (for Suceava-Botoșani strictly), the rest of them having different end lines, while Suceava is a transit point for all the routes that go from Botoșani to the western part of the country (to big cities like Cluj-Napoca or Timișoara).

Inside the metropolitan areas, the PT links between the urban settlements are quite good, as Suceava and Salcea are linked with 75 daily one-way routes and Botoșani and its urban neighbour, Bucecea, are linked with 14 daily one-way routes (Table 1). Very few or no links are between the small towns and between small towns and the residence of the other county, which means that the flows between these nodes are very low, and that the small towns are dependent mostly on their major city.

Table 1

The number of direct road PT links between the cities of the studied area

	Suceava	**Botoșani**	**Bucecea**	**Salcea**
Suceava	0	21	1	75
Botoșani	21	0	14	21
Bucecea	1	14	0	0
Salcea	75	21	0	0

When it comes to which companies operate these networks, there are 96 economic entities that provide public transport services in the two counties. This large number of operators represent a downside for the PT provision, making it very fragmented and difficult to manage, because different operators come with different type of buses that are difficult to identify and differentiate from other transport vehicles. Also, there is not a proper price policy, even though it is stated that the competition brings better prices for the population. Another downside of the large number of PT operators is that they set-up private bus terminals, often in peripheral areas of the cities, or the opposite, in the centre of the city, making the supply very uneven and unattractive. While it is recognized that "terminals may be points of interchange within the same modal system and which ensure a continuity of the flows" (Rodrigue and Slack 2013: 128) and if the terminals for different routes are in different parts of the city, this situation creates an important barrier in the movement of passengers – in Botoșani and Suceava cities that is exactly the case, as many firms that ensure county and regional PT are located in different parts of the city.

The supply of road PT in the studied area covers almost the entire area, but there are still some settlements, all rural, that suffer from a lack of this public utility service (Fig. 5), the closest transport station being a couple of kilometres away. The stats in Table 1 show that 10 villages that have a total of 3711 inhabitants (in 2011), from both metropolitan areas, do not have direct access to PT, which means that they have very difficult access to vital services that can be found only in the city. Almost 4000 people suffer from a low supply of PT; the

Table 2

The number of people affected by the lack or low supply of PT services

Population without PT access	**Share of rural population**
3711 inhabitants	3.58%
Settlements without PT access	**Share of total rural settlements**
11	10.63%
Population with <4 daily PT routes	**Share of rural population**
3918 inhabitants	3.78%
Settlements with <4 daily PT routes	**Share of total rural settlements**
7	7.44%

settlements where they live are transited less than 4 times per day by a bus or a mini-bus, which means that the tracking time is more than 3 and a half hours between the buses.

The numbers of people that do not have direct access or that have low frequency rates is not so high, but in an urban area that wants to be the most competitive at the regional level, having more than 7% of the rural population makes it an issue that must be tackled with.

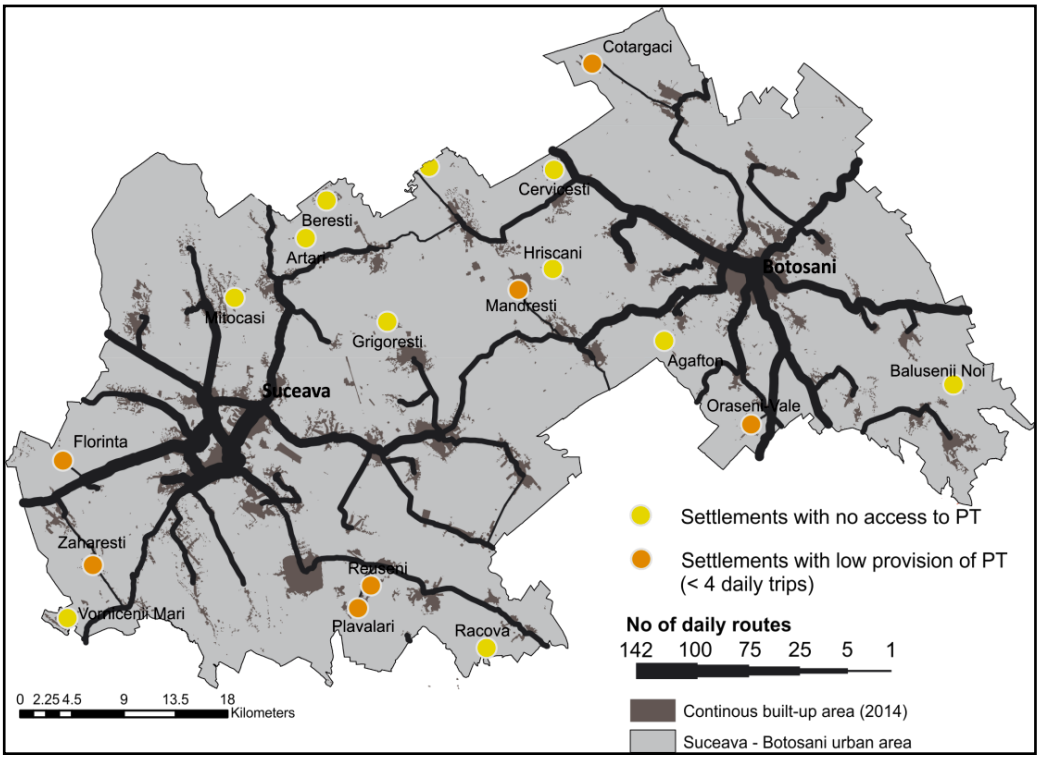

Fig. 5 – **The geographic distribution of the rural settlements with lack or low supply of public transportation**

The rail passenger transport has different characteristics, due to its dependence on expensive infrastructure and its role of linking nodes across long distances, but in many cases the regional trains (called Regio) have their role in providing public transport services for people who travel on short distances and that use this service for commuting, making a city or a village more accessible. The Suceava-Botoșani Urban Area does not have a railway system dedicated to the local and metropolitan PT like the S-Bahn (in German cities and in Austria's capital, Vienna), S-Tog (in Copenhagen) or the RER network in Paris (Dicembre and Ricci 2011).

The studied area is transited by one rail corridor (500) with 3 branches (502, 511 and 513), that links the Romanian capital, Bucharest, with the Vicșani rail border crossing with Ukraine. The rail density of the studied area is 80 km/1000 km, which is double than the average value for Romania while this number includes also the segments of railway that are outside the administrative borders of Suceava-Botoșani Urban Area (Fig. 6).

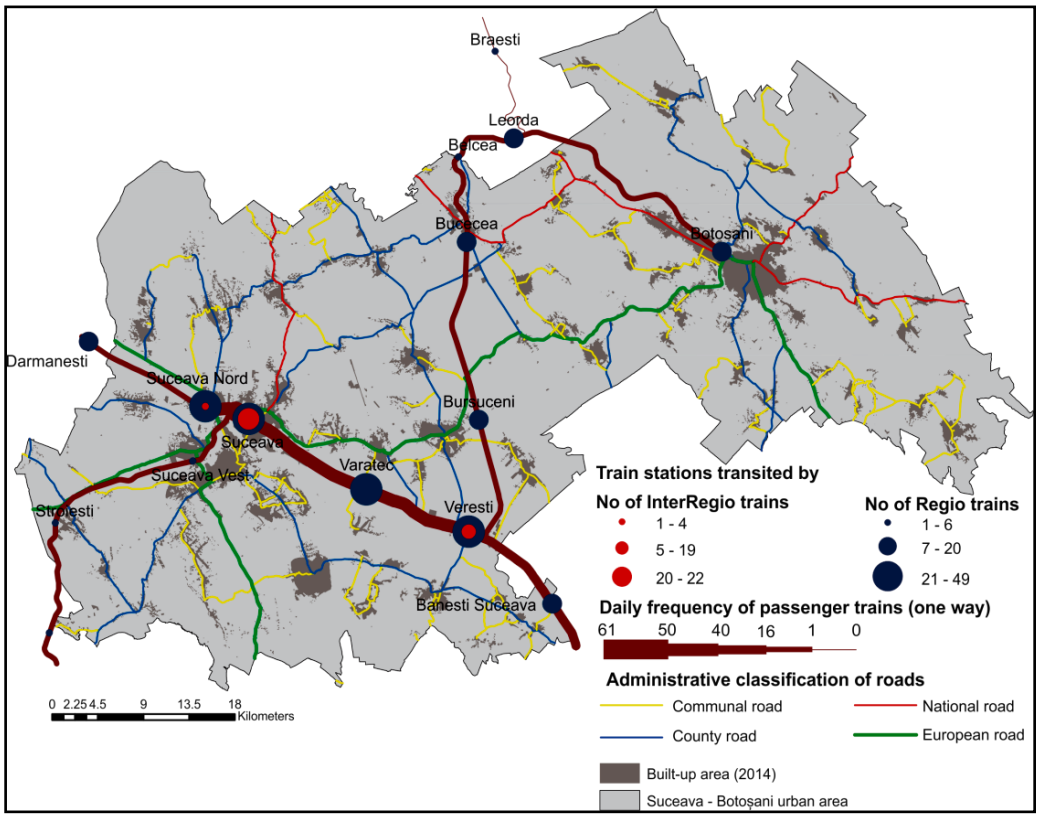

Fig. 6 – **The geographical distribution and the train daily frequency on the rail network in Suceava-Botoșani Urban Area**

Figure 6 shows that the most transited route is the main rail corridor which links Suceava with other important cities in Romania and that Botoșani is a “cul-de-sac” when it comes to rail connectivity, being served by a secondary line. The daily train frequencies are not very high on the secondary lines, as only 14 trains connect Botoșani to its main rail hub, Verești, where the passengers can change trains for other destinations. Except for the mentioned hub, the stations that assure provision for the rural settlements are transited only by Regio trains, because of the transport costs and the low density of population and jobs in these areas (Kilkenny 1998). But the daily frequency is not that high, only the main rail corridor offering enough daily trains that can bring passengers while staying competitive with the road PT. The rail PT is less competitive than the road PT even when it comes to costs, the average price per kilometre on road PT being 25 bani (approx. 0.06 euro) while for rail it is 35 bani/km (approx. 0.08 euro). For short distances and for commuting purposes, that imply trips twice a day or twice a week, these price ranges are too high (Oum et al. 1992). But the rail national company offers great discounts for subscribers and for certain social categories like pupils and students that use the train to commute for educational services (Lupchian 2008), Suceava being a university city.

A long rail distance that is covered in a large amount of time is the cause of the few direct links between the two cores of the studied area. Only 4 direct trains link Suceava to Botoșani and the 59 kilometres distance is made in an average time of 1 hour and 40 minutes which makes this route to be unattractive and uncompetitive, determining every commuter to choose other mode of travel (Balcombe et al. 2004).

The main competitor for the both analysed modes of public transport are the private-car travels – the increased mobility that this transport option offers and its comfort makes it more and more used, even in areas where the economic power of the population is not very high (Gwilliam 2010). The growing investments in road infrastructure in Suceava-Botoșani Urban Area determined large cohorts of the population to buy cars, even in rural areas, which suffered massive transformations of their morphology, as the urban sprawl is a present phenomenon (Istrate 2015). The Romanian case confirms the other studies' findings: "For many decades, public transport has been struggling to compete with the auto-mobile. Around the world, the rates of car ownership have been increasing as incomes rise and cars become more affordable. The continuing decentralization of cities into suburban and exurban areas has generated land-use patterns and trips that are difficult for public transport systems to serve" (Buhler and Pucher 2012: 541).

In Botoșani and in Suceava counties the motorization rate has increased. Figure 7 shows the motorization rate in the interval of 2002-2014 at county level. Data for the lower scale are not publicly available, but these time series offer a good picture, as the motorization rate practically doubled for both counties. Suceava County has a higher value for this index due to its higher economic power, but the trend is ascendant and here the increasing motorization index comes with all its perks: better accessibility to services and jobs, increased mobility; but also with its downsides: congestion, social segregation, environmental degradation and a higher share of income spent on commuting (Low 2003, Lucas 2004). Despite this major increase, in these two counties the motorization index is much lower than the Romanian average (235 vehicles/1000

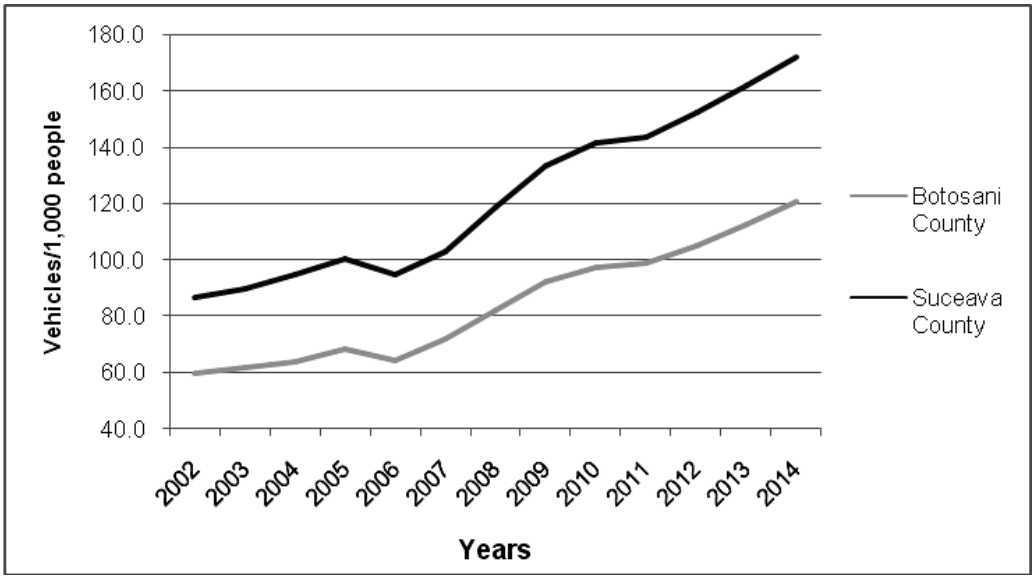

Fig. 7 – **Motorization index between 2002-2014 for Suceava and Botoșani Counties**
Source: DRPCIV, Ministry of Foreign Affairs

people in 2013, National Institute of Statistics), and the European average (490 vehicles/1000 people in 2013, according to Eurostat).

A high rate of car ownership provides better mobility for those who afford to buy a car but it creates competition and it attracts consumers from the public transport, which can produce a drop in the supply of PT, as a result of smaller demand. The supply can be affected in terms of daily frequencies, capacity and higher prices and in some cases, low-density settlements can be deprived of this public utility service.

Conclusions

Beyond its intrinsic value for the economy, the transport sector has its role in the activities that people have in their everyday life. Public transport has a great role to create higher accessibility for cities and their metropolitan regions. The supply of PT services is in tight correlation with the demand, but it is not always capable of capturing the population's needs. It is the case of PT services in the studied area, whose planners have not created a framework for a metropolitan road PT or a complementary network together with the rail PT. The publicly available data for road PT make this field of research very valuable for understanding the flow of people between cities and how the big cities are interacting with their hinterland by PT.

Constituted in 2013, the Suceava-Botoșani Urban Area still does not work as a single region when it comes to PT, and it still works as a core and periphery, only that in this case we have two cores and two peripheries. The links between the settlements of the two metropolitan areas are still few and the frequencies are not high enough. The metropolitan facet of the road PT is in a better situation, providing high daily frequencies, especially at AM and PM peaks and it also covers all the cities and the large majority of the villages. As in rail PT, most of the routes offer PT provision for the metropolitan region only as a happening, as they were not planned to provide exclusive services for these areas, and this situation must be worked on.

An analysis of the services quality is difficult to make without a proof methodology and a thorough field research, but this type of assessment can provide proper answers to the rationality between modal shares in the passengers' transport in the studied area.

The social importance of the PT in an area with a low motorization index must bring public transport policies as a priority for those in charge with this domain. In order to provide better services and to have a better geographic coverage, major investments must be done and the system of public auctions must be modified. The actions that will improve the provision of PT, including its road component, must target the creation of one or maximum two bus terminals for the two major urban centres, located in strategic areas, like near the train station, where they can provide passengers one to another, or major hub of the urban public transport network, and all the existing private bus terminals must be displaced there, in order to have a single hub for the county, metropolitan and regional PT.

The planning of the PT must be improved. Without quantitative and qualitative data, a proper diagnosis, that should offer a clear image of the entire PT system, is difficult to establish. A better collaboration between the network's planners is required. The towns' and villages' public authorities can ask for certain updates to the existing supply and because they know better the demand at local level, they should get more involved in this process. Also, even though the routes are granted by the county's council, the stations in each locality are in the local authorities' backyard and the location and the conditions for waiting the bus must be improved and the timetable displayed in every station. A method to have fewer companies that win these auctions must be implemented. The fragmentation of the routes is a bad strategy because in this manner the cash flow entries are low and the transport companies do not have the

financial power to buy newer, high capacity buses, that offer better comfort to the passengers and they will always be tempted to take passengers over capacity and to not offer tickets, which leads to a reorientation of the passengers for private cars.

It is mandatory that new routes to be established, in order to offer PT services for the population that suffers from a lack of PT supply. Also, more direct links, even some express ones, between Suceava and Botoșani cities are imposed, while, on this route, the competition between the PT and private cars is fierce and there is room for a better transport with low investments. The road infrastructure must be improved, in order for the PT operators to stay competitive, to optimize the expenses of the firms and to lower the times for PT. This recommendation is quite difficult to implement by reasons of high costs and different infrastructure owners, that do not always collaborate.

For the rail PT, the situation is more difficult, as the expensive investments that must be made to optimize the speed and the offered comfort are determining that a better supply of this service to be difficult to obtain. Besides the investments in heavy infrastructure and signalling (Dicembre and Ricci 2011), the rolling stock must be optimized for regional passenger transport and for different type of track, hybrid trains being the most recommendable. Some soft actions still can be done, like setting new stations for Regio trains near the dense built-up areas and improved local access to these stations among their modernization, but until the rail PT will not offer lower travel times to its passengers, the demand and the supply for such services will be still low for short distances.

The relevance of this paper's findings is that based on this framework regarding the provision of PT, the authorities can take better decisions using the GIS software by simply displaying the main attributes of PT provision. This tool can easily be used by other decision makers in this field of activity, in other metropolitan areas in Romania that want to increase the synergies between the core cities and the settlements around them. Improvements of the PT services are vital for the sustainable developments of the city, as the spatial planning of the cities and their metropolitan areas must take into account the PT networks in order to provide access to jobs and general interest services to a broader range of population. The decline of this part of transportation in the last two decades can be ameliorated with better and flexible services. For Botoșani and Suceava cities, this approach can lead to a better collaboration between them and to an increase of flows from which both can benefit. The development of the supply of PT can create strong connections between the urban centres and their metropolitan areas, gaining a more important role for their hinterland.

References

ABUNDO C., BODNAR T., DRISCOLL J., HATTON I., WRIGHT J. (2013), *City population dynamics and fractal transport networks*, Proceedings of the Santa Fe Institute's Complex Systems Summer School, 1-7.

AMARAL M., SAUSSIER S., YVRANDE-BILLON A. (2009), *Auction procedures and competition in public services: The case of urban public transport in France and London*, Utilities Policy 17 (2), 166-175.

BALCOMBE R. (ed.), MACKETT R., PAULLEY N., PRESTON J., SHIRES J., TITHERIDGE H., WARDMAN M., WHITE P. (2004), *The demand for public transport: a practical guide*, TRL Limited, Wokingham.

BOTOȘANI COUNTY COUNCIL (2015), *Socio-Economic Development Strategy of Botoșani County for 2014-2020* (in Romanian), Available at: http://www.cjbotosani.ro/portal/files/h043_27.03.2014.pdf.

BRESSON G., DARGAY J. MADRE J.-L., PIROTTE A. (2004), *Economic and structural determinants of the demand for public transport: an analysis on a panel of French urban areas*

using shrinkage estimators, Transportation Research Part A: Policy and Practice 38 (4), 269-285.

BUEHLER R., PUCHER J. (2012), *Demand for Public Transport in Germany and the USA: An Analysis of Rider Characteristics*, Transport Reviews 32 (5), 541-567.

DICEMBRE A., RICCI S. (2011), *Railway traffic on high density urban corridors: Capacity, signalling and timetable*, Journal of Rail Transport Planning & Management 1 (2), 59-68.

ESPON (2004), *Transport services and networks: territorial trends and basic supply of infrastructure for territorial cohesion*, ESPON Project 1.2.1, Project report, Luxembourg.

FISTUNG F. D., MIROIU R., TĂTARU D., IȘTOC M., POPESCU T. (2014), *Transport in support of the process of socio-economic development of Romania, after 1990*, Procedia Economics and Finance 8, 313-319.

GWILLIAM K. (2003), *Urban transport in developing countries,* Transport Reviews 23 (2), 197-216.

IORDACHE C. (2009), *The Evolution of the Urban Public Transport During The 1950-2006 Period in Romania*, Forum Geografic 8 (8), 108-115.

ISTRATE M. I. (2015), *Urban Sprawl and Demographic Dynamics In Suceava Metropolitan Area*, Journal of Community Positive Practices 2, 43-55.

JANNSON K. (1993), *Swedish Competitive Tendering in Local and Regional Public Transport: Overview and Comparative Case Studies*, Thredbo 3 Conference, 243-262.

KANAFKANI A. K. (1983), *Transportation Demand Analysis*, McGraw-Hill, New York.

KILKENNY M. (1998), *Transport costs, the new economic geography, and rural development*, Growth and change 29, 259-280.

LOW N. (2003), *Is urban transport sustainable?*, in: Low N., Gleeson B. (eds.), Making Urban Transport Sustainable, Palgrave Macmillan, New York, pp. 1-21.

LUCAS K. (2004), *Transport and social exclusion*, in: Lucas K. (ed.), *Running on Empty: Transport, social exclusion and environmental justice*, The Policy Press, Bristol, pp. 39-53.

LUPCHIAN M. M. (2008), *Des déplacements journaliers pour l'école dans la ville de Suceava*, Georeview 17, 183-190.

MURRAY A. T. (2001), *Strategic analysis of public transport coverage,* Socio-Economic Planning Sciences 35 (3), 175-188.

NATIONAL INSTITUTE OF STATISTICS (2013), *Repere economice şi sociale regionale: Statistică teritorială*, INS, Bucharest.

ONG P., BLUMENBERG E. (1998), *Job Access, Commute and Travel Burden Among Welfare Recipients*, Urban Studies 35 (1), 77-93.

OUM T. H., WATERS W. G., YONG J.-S. (1992), *Concepts of Price Elasticities of Transport Demand and Recent Empirical Estimates: An Interpretative Survey*, Journal of Transport Economics and Policy 26 (2), 139-154.

PAIN K. (2008), *Examining 'Core-Periphery' Relationships in a Global City-Region: The Case of London and South East England*, Regional Studies 42 (8), 1161-1172.

PINJARI A. R., BHAT C. R. (2011), *Activity-based travel demand analysis*, in: de Palma A., Lindsey R., Quinet E., Vickerman R., A Handbook of Transport Economics, Edward Elgar Publishing Limited, Cheltenham, pp. 213-248.

RĂDULESCU V., STRĂINESCU I., MOROIANU L., TUDOR E., GOIA C., BOZAȘ F., LUPU V., RĂDULESCU B., TĂNASE M. (2013), *The need to improve transport conditions in the big cities of Romania*, Urban Transport XIX, 125.

RODRIGUE J. P., SLACK B. (2013), *The function of transport terminals*, in: Rodrigue J. P., Comtois C., Slack B. (eds.), *The Geography of transport systems*, Routledge, Third Edition, New York, pp. 127-134.

ROTEM-MINDALI O., GEFEN D. (2014), *Rail Transportation and Core-Periphery Reliance in Israel*, Journal of Urban and Regional Analysis 6 (2), 113-127.

SANCHEZ T. W., SHEN Q., PENG Z.-R. (2004), *Transit Mobility, Jobs Access and Low -income Labour Participation in US Metropolitan Areas*, Urban Studies 41 (7), 1313-1331.

von FERBER C., HOLOVATCH T., HOLOVATCH Y., PALCHYKOV V. (2009), *Public*

Transport Networks: Empirical analysis and modeling, The European Physical Journal B 68 (2), 261-275.

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BROWNFIELDS REGENERATION, BETWEEN SUSTAINABLE URBAN DEVELOPMENT AND CULTURAL HERITAGE. THE FORMER MILITARY SITES IN ORADEA, ROMANIA

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Abstract: The post-Cold War conditions, following the collapse of the USSR, brought radical socio-economic changes in Central and Eastern Europe, including the process of military restructuring – a process of military relocation, which resulted in huge amounts of under-used land. Many regions are facing development dilemmas while experiencing demilitarization transformations, as the process has left behind in many cities large areas of abandoned and potentially contaminated tracts of land. The paper deals with the multitude of military brownfields redevelopment benefits, explaining the case of the city of Oradea (Romania) which implemented effective land restoration through (re)development projects in order to address the considerable contemporary demand for new lands to sustain the residential, commercial and other socio-economic needs. The cultural-historical context of the former military constructions has to be mentioned, as the involved heritage buildings have a special architecture, being a direct result of the military development process under the historical influences.

Key Words: *military brownfields, sustainable (re)development, heritage buildings, Oradea, Romania.*

Introduction

Across Europe, the presence of derelict and contaminated land represents a territorial concern. Brownfield sites present specific challenges to policy makers in terms of bringing the land back to beneficial use and of environmental quality, requiring the cleaning of contaminated soil and groundwater. Sustainable brownfields' redevelopment research involves integrated environmental, spatial, and urban planning approaches in configuring the suitable policies and strategies. While in North America, brownfield sites are defined as "real property, the expansion, redevelopment or reuse of which may be complicated by the presence of a hazardous substance, pollutant, or contaminant" (U.S. SENATE 2002: 504), there is no common definition for the concept of "brownfield" in Europe but the term, in general, is associated with contamination (Grimski and Ferber 2001, Cobârzan 2007). Military brownfields represent a particular category of brownfields and they are common among many countries throughout Europe.

Following the collapse of the USSR, the Central-Eastern European region experienced important socio-economic-political changes, such as: the transition from the centrally planned to the market economy, the democracy process, the institutional changes, the multi-party political system, the first free elections, the integration in the global networks (European Union, NATO), the increasing social polarization (Ilieș and Wendt 2003, Michalski 2006). This major restructuring process involved also demilitarisation, part of an important society transformation, having as consequences, among others, the emergence of the so called Military Brownfields, or underused, derelict, in some cases contaminated military areas, including abandoned buildings and the attached installations. Military Brownfields involve a large number of former military facilities, like bases, arsenals, ammunition depots, storage of fuels and lubricants, tank training areas, dump and disposal of hazardous waste. Military brownfields have a negative

impact not only on the environment, as the site contaminants may be present in soil, in ground-water aquifers, in outdoor air, but also to the economy as well, as these abandoned areas have no contribution to the local and regional economy.

The Military Brownfield sites within the city of Oradea, in Romania, have been generated by the historical military activities and they are a mixture of military installations dating from late 19th and 20th centuries. At the end of the 20th century and the beginning of the 21st century, the whole city area was affected by the demilitarisation process. Part of these former military areas have fallen into disuse or decay with no contribution to the local economy, while other parts have had their functionality changed, from military to education or public administration services. Through new investments, the redevelopment of these valuable lands, located either central or peripheral across the city, would lead to new economic opportunities, and various social and environmental benefits, like reducing the pressure on urban or suburban greenfields (parks, forests), a better public health and an improved public safety (Russ 2000, Berman et al. 2009, Sarni 2009, De Sousa and Ghoshal 2012). In general, at local level, these sites are seen as underutilized areas, where pollution hindered their redevelopment (Oradea City Hall 2013), and their study focuses predominantly on technical elements and on environmental risk factors.

The paper deals with the multitude facets of military brownfields redevelopment benefits at local level, explaining the rehabilitation process of the former military sites as part of the city of Oradea sustainable regeneration process.

Data and Methods

The study area is represented by the former military areas (Military Brownfields, Fig. 1) of the city of Oradea, an important socio-economic and cultural urban centre, with a population of 222 736 inhabitants (INSSE 2015), located in western Romania (Bihor County), 10 km away from the Hungarian border, and being one of the main Romanian gateways to Central and Western Europe. The city is located at 126 m altitude, along the Crișul Repede River, being spatially developed at the contact between the Western Plain and the Western Hills, an area of transition between the Pannonian Depression and the Apuseni Mountain. The historical urban development of Oradea reflects the strong correlation between its spatial extension, the physical-geographical characteristics of the territory, its socio-economic features and the city's functional areas.

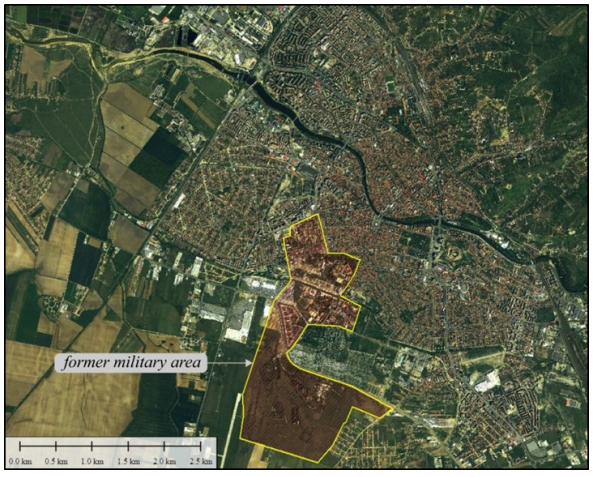

Fig. 1 – **The former military areas of the city of Oradea.**
Source: ANCPI aerial photo (2012)

The complexity of the research topic required a comprehensive methodology, based on the literature review in the first stage. This important phase was designed to increase the understanding of the military areas restructuring phenomenon through the results of previous research (Cocean 2005). Therefore, different types of works were reviewed, taking into account a multidisciplinary perspective – geography, sociology, architecture, history and administration studies were included. The preliminary phase meant also the analysis of maps and aerial photos for the identification and the quantitative and qualitative assessment of areas to be studied. Then, a descent into the former military areas allowed us to obtain the latest information about the status of the analysed space and related the projects undertaken by the authorities. The field observation increased the knowledge on the geographical reality of the former military areas under continuous evolution (Cocean 2005). The direct observation stage had the purpose to capture the complex characteristics of the former military areas, in order to better understand the dynamics of the involved socio-economic processes. The analysis followed with the processing of the volume of data obtained through the preceding methods. Initially, the results of the analysis are presented from a historical perspective, then they focus on the features of the military heritage buildings, presenting their specific architectural influences and style. The final phase of synthesis was the support for drawing and defining conclusions to a better policy making in the field.

Results and Discussion

From military use to commerce, service and industry activities

Oradea has developed since its beginnings in close connection to its fortress, the oldest construction within the city. The Fortress of Oradea had an important military role in the Middle Ages, but its importance was lost in the Modern Period. The evolution of the military techniques, the introduction of the mandatory military service, the need to train, to equip or to feed a large number of soldiers led, in the second half of the 19th century, to the development of large military facilities construction projects, involving military bases, schools, ammunition depots, storage of fuels and lubricants, phenomenon quite common throughout Europe in that period.

Beginning with 1880, on the empty field located north of the Rulikowski Cemetery, various military buildings and facilities have been built in Oradea. The School of Gendarmerie was built in 1912-1913, and its buildings host in the present time the University of Oradea (Fig. 2) (Monumente Bihor 2014). The large number of soldiers from these military facilities turned Oradea into one of the greatest military bases throughout the Austro-Hungarian Empire. Following the First World War and the union of Transylvania with Romania, all this military heritage was undertaken, with maintaining the military function by the Romanian State administration, as being the succession authority of the Austro-Hungarians in Transylvania.

Oradea hosted the 16th Infantry Division, its commandment being in the imposing building where the General Headquarter of the School of Officers was located, during the Austro-Hungarian period (Fig. 3). The School of Gendarmerie continued its existence under the Romanian administration in the same conditions as during the Austro-Hungarian. Following the Vienna Dictate (1940), the Romanian authorities and military have redrawn from Oradea (Mândruț 2013). But, the new Romanian-Hungarian border was passing just south of Oradea, therefore the city maintained its military and strategic importance. In these conditions, it was located an important Hungarian military base in Oradea, the construction of new barracks being a real need. After 1940, there were built the military facilities of the so called “Red Barracks” (name related to the occupation of the Romanian – Soviet troops in 1944) located south of the Rulikowski cemetery. Following the Second World War, the northern part of Transylvania was reintegrated into Romania, and there were located new various Romanian military units in Oradea. Between the end of the war and 1963, the buildings presently hosting

the University of Oradea was destined to the School of Officers for the Ministry of Interior. In 1963, the Three Years Pedagogical Institute was established there and, following 1990, the institution was converted into the University of Oradea (Paşca 2005).

Fig. 2 – **University of Oradea Main Campus**
Source: www.ovidpop.ro

Fig. 3 – **Crișuri County Museum**
Source: www.ovidpop.ro

After NATO was established in 1949 (NATO 1949) and the War in Korea erupted in 1950 (Britannica 2016), Stalin, the Soviet Dictator, together with the Satellite Countries from the Central-Eastern Europe, including Romania, have developed an arming program, part of the Warsaw Treaty (TOH 2016), for the endowment of the military with modern technique. So that, the Romanian Army has increased significantly its military forces and the military was equipped with modern fighting technique. Oradea had become one of the largest barracks of the country, the 11th Infantry Division being established here, in 1951 (renamed as the 11th Mechanised Division in 1959). This large unit of the Romanian Army included mechanized infantry units of artillery and tanks, being organized according to the Soviet model. In order to support this military fighting technique, deposits of ammunition, fuels and facilities to maintain and repair the military technique were built (Local History 2016).

Following the Romanian Revolution (1989) and the Treaty on Conventional Armed Forces in Europe (OSCE 1990), the Romanian Army started a significant program of decreasing its military forces and techniques. There were closed a large number of military units, and a part of the buildings and facilities were transferred to the local authorities, having their functionality changed in this way. In Oradea, the same phenomenon happened and a large number of sites and buildings belonging to the 11th Mechanised Division were transferred to the local authorities.

The buildings belonging to the 11th Mechanised Division, closed in 2005, host important institutions today, for example: the Crișuri County Museum (under rehabilitation between 2005-2016, located in the former Division Commandment), the Gheorghe Șincai Bihor County Library (the former military canteen), the Territorial Labour Inspectorate Bihor, or the Cadastre and Land Registration Office Bihor. The Oradea NATO HUMINT Centre of Excellence is located in facilities belonging to the 119 Research Battalion. Other facilities of the 11th Mechanised Division, like the cavalry stables or the infirmary of the division, have fallen into decay, being demolished in the end.

The military area hosting the former 21st Tank Regiment (or the Red Barracks), following the withdrawal of the military presence became abandoned, derelict, with wild vegetation (Fig. 4-7). This total area of 23.84 ha has a great redevelopment potential, addressing the considerable contemporary demand for new lands to sustain residential, commercial and other economic needs within Oradea. The Association of Intercommunity Development, the Oradea Metropolitan Zone and the Oradea City hall, through the Oradea Eurobusiness Park, promoted

a project named The Industrial Park Eurobusiness II Oradea. The technical documentation was elaborated in 2011 and the reconstruction process took place between 2015-2016. The proposed development changes the land planning, which now includes 26 parcels (with areas between 5010-9524 m^2 in the east and 6865-21155 m^2 in the west) located on both sides of the interior road; also, a 18 m wide green protection belt is to be developed towards the new residential complex from the proximity. In the east side of the site, the commerce and services are the main economic activities, while in the west the lots are larger and they are designed to host production activities (light industry) and deposits/storage (Oradea City Hall 2011). This Industrial Park aims to attract businesses and investors, as their involvement in economic activities, business development, work-place creation means the redeveloping of derelict and abandoned areas, improving the overall urban life quality at local level and serving as a catalyst for a broader sustainable development phenomenon of the urban structure.

Fig. 4 – **Former commandment of the 21st Tanks Regiment**

Fig. 5 – **Abandoned barrack of the 21st Tanks Regiment**

Fig. 6 – **The former tanks maintenance unit (21st Tanks Regiment)**

Fig. 7 – **Military Brownfields in Oradea**

Historical and architectural features of military heritage buildings

The former military sites of Oradea consist of historic buildings of critical value. The cultural-historical value is very important while these heritage buildings have a special architecture as a direct result of the military development process influenced by historical events and decisions.

The former School of Gendarmerie is one of the greatest work of the architect József Vágó (Paşca 2005). The building-complex was built in 1912-1913. The main entrance is framed with two sentry-boxes (G) and the buildings are centralised around a round-shaped park (Péter 2008). The former school is the main building (A) sided by the officers' house and office (D), the two major 4-storey buildings were the barracks (B, C), and in-between the bath (E). Behind the main buildings there are six houses for warrant officers according to Vágó's plan, yet only

four were built (F) (Fig. 8). A canteen building (H) was also built in the same style and a simple white colour.

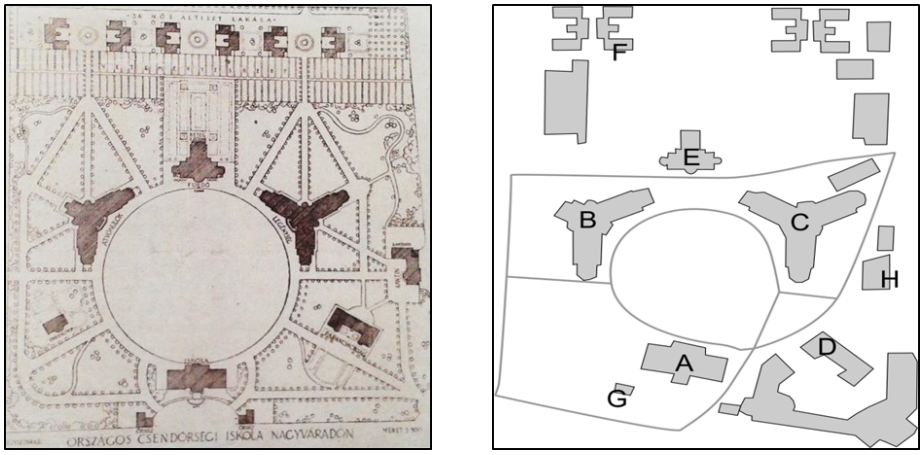

Fig. 8 **– Original blueprint of the Gendarmerie in Oradea – the complex planned by József Vágó and the recent buildings of the same area**
Source: Lambrich (2010), edited by the authors

Vágó made an outrageous plan for the gendarmerie, as he broke up with the traditional barrack designs and built a great central hall which represents the staircase itself (Lambrich 2010). So the functions of the military unit are combined (Fig. 9).

These buildings are considered the last work of Vágó in Oradea, and the first in this large-scale (Moravánszky 1988, Paşca 2005, Paşca 2010). Vágó mixed different architectural directions in his work. In the next paragraph we will have a brief outlook on these influences.

The buildings of the gendarmerie represent national architectural and cultural heritage monuments according to the decision no. BH-II-a-A-01031 of Bihor County. The decision argues that the former military site is featured by the late secessionist architecture style, thus the buildings are complexly composed in terms of architectural style.

The secession, as an artistic movement, has many names and directions across Europe. It is called Jugendstil in Germany, Modern Style in England, Secessionstil in Austria, Art Nouveau in France. In lack of a comprehensive name, we will refer as Secession to this style, in our paper (Moravánszky 1988, Loze 1992, Vadas 2005,

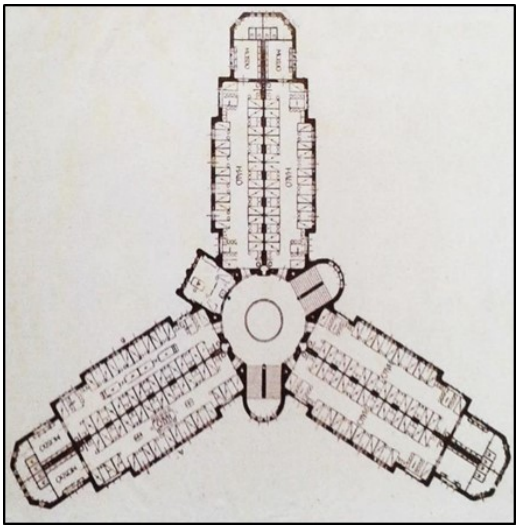

Fig. 9 **– Original blueprint of the Oradean Gendramerie barrack planned by József Vágó**
Source: Lambrich (2010)

Fahr-Becker 2013).

Secession is considered the art of the line. Line is essential to express thoughts, identity and emotions. Therefore, the most important elements on the facades are the stylistic lines of the ornaments. The main decorations are naturalistic and floral adornments defined by sudden and violent, sometimes smooth and thin, curves (Tschudi-Madsen 1956). The aim of secession, as a new wave of architecture, is to express the era of the early 1900's which was created as a criticism on historicism (Moravánszky 1988). Historicism, as an architectural direction, revives historical architectural elements from the ancient Greek or romantic architecture which created the eclectic architecture. The critical intentions of secession were not fully successful, due to the conservative and strongly rooted eclecticism in the Austrian-Hungarian Empire (Vadas 2005). This required compromise between the secessionist and the historicist architecture in the beginning, therefore style continuity is an important feature of the early Austro-Hungarian secessionist buildings.

In the Hungarian Kingdom, a strong endeavour appeared to adapt the folk motives in architecture. In the early 1900's, Ödön Lechner had great impact on architecture, as he believed that secession can be a national art form for the Carpathian basin. The disciples of Lechner (Károly Kós, Lajos Kozma, Béla Lajta etc.) made pilgrimages to Transylvania to discover the forgotten folk art. They did not copy the motives, but adopted them in a 20th century form (Vadas 2005). This influence has a strong imprint on the Hungarian and Transylvanian buildings. As a result, secession could not evolve fully in its traditional wiener form. This Transylvanian folk motive combines the modern and the traditional architecture of the Carpathians. The secession born, but folk art influenced style can be referred as Transylvanian architecture, as an unique feature of the Carpathian basin. It is not Hungarian, nor Romanian, nor German, just pure Transylvanian. This style is functional, purified and simplified, less than secession, and more than modernism. This kind of pre-modern rationalism and folk-orientation have always had greater room to appear in architecture in this area.

Due to several political changes in the Carpathian basin, the program of secession was consummed during the early 1900's. In Western Europe, other new wings started to evolve from secession, for example, the art deco. The term of art deco is originated from the Paris World Fair (Expo) in 1925, but the art stream existed since the early 1910's (Loze 1992). Originally, art deco evolved as a wing of secession movement; later, it became undoubtedly an autonomous artistic wave. The importance of lines remained, but the floristic motives and richly ornamented facades became more abstractive, stylistically simplified and geometric. Functionalism became major, and the decoration got gracefully puritan. In the Austrian-Hungarian Empire, the art deco just started when the First World War ended with the collapse of the dualistic state and it revoked eclecticism in architecture instead of consummating art deco (Vadas 2005). However, fortunately, the Gendarmerie complex contains some of these ideas as well. The main entrance of the main building reminds us to the roman and gothic monumentalism (Fig. 10) but in a modernist manifestation, which appears in other works of Vágó (such as Gresham-Palace, Budapest).

The facade is simple and flush, the windows are uniform with steady distance. The main building's front windows are narrow but tall, which gives elegance and a reminiscence of the gothic windows with the stained glass. This combines the historic continuity to the complex with the simplicity of modernism and envisions the traditional Transylvanian architecture.

The ground floor is covered with rectangular cement plates which reminds the spectator the plurality and the simplicity of functional modernism, rationality, and art deco. The Vágó brothers used cement flagstones (Fig. 11) in the Árkád-bazár building in Budapest, the same solution was used on the Darvas-La Roche villa, Oradea. The riveted cement coating is a hint for the modern, industrial large-scale production, the era of steel and machines (Vadas 2005).

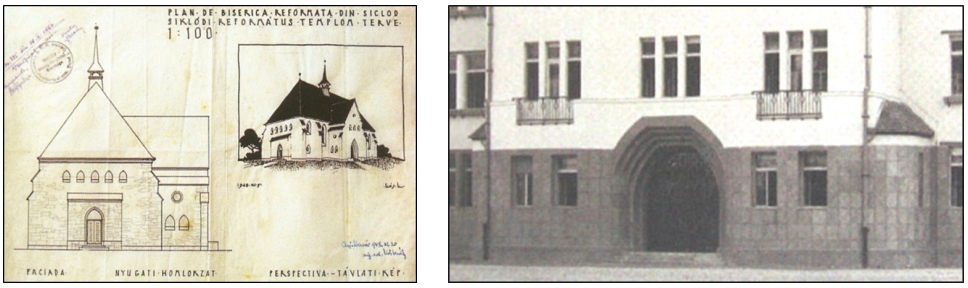

Fig. 10 **– Entrance and perspective of a Transylvanian church by Károly Kós**
Source: www.epiteszforum.hu

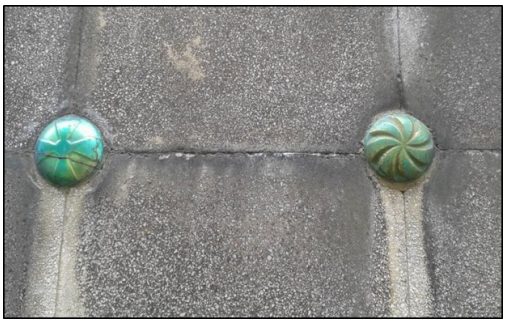

Fig. 11 **– Cement flagstones on the Darvas -Laroche villa and the university buildings**

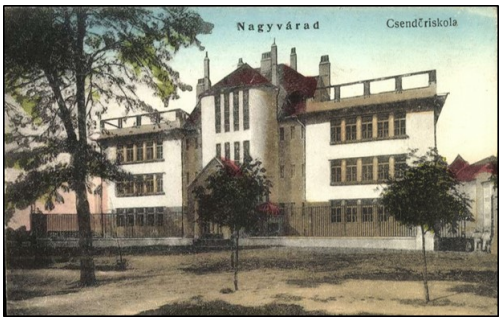

Fig. 12 **– The former balconies which have been built up**
Source: http://postcards.hungaricana.hu

The main building though has no specific décor on the façade, but the geometrically composed roof terraces (hinting early Bauhaus) (Fig. 12.) and the majolica tiles on the roof made the main building unique. Unfortunately, after a renovation, the terraces had been built up and the roof tiles were changed.

Inside the buildings, secessionist decorations can be found in the staircases or the handrails. Without taking notice on the original plans and the architectural guidelines, the windows and the doors have been modified to suite the building to the university role. In several cases, modern architecture and heritage were not considered as priority during the socialist times. In the next years, changes to renovate the buildings should be done according to the architectural style they were originally built in.

Conclusions

The Military Brownfields redevelopment generates the complex utilization of a region, as rehabilitation has significant positive impacts, like improving the urban aesthetics. Furthermore, these military facilities act as attractions especially based on their cultural heritage features. Many of these former military sites and buildings do not only have a historical value, remnants of an epoch of military expansion, but they also have inherent architectural and affective value and importance. Nowadays, even though several changes had been made, for example the buildings are painted in different colours, or new parts were attached and built in some cases, the buildings have still a great importance. In the recent years, new initiatives have started to renew and to restate the monuments which were abandoned in terms of cultural heritage. The common built heritage symbolizes the modernist approaches and the importance of the

Transylvanian folk motives combined with art deco and secession which should be exploited more. Therefore, the brownfield rehabilitation project of one of the former military sites of Oradea should not only change the function of the territory, from military to academic activity, but cultural tourism should be developed based on special thematic routes that could help to increase the visitors' number and the general tourism activity as well.

Another Military Brownfield redevelopment project – the Industrial Park Eurobusiness II Oradea – is expected to open new opportunities at local and regional level, supporting in this way the functional urban-economic reintegration of the former military sites, by adding significant economic value and by balancing the land-use development process through the reuse of underutilized spaces, instead of consuming new green urban or suburban territories. The new opportunities of investment would generate positive socio-economic effects, important additional incomes, new infrastructure works, while the negative impact of the brownfield sites on the population and the urban ecosystem would decrease. The challenge for the city is to transform these abandoned military areas and the heritage buildings into successful socio-economic examples for achieving competitiveness, while generating good practice cases for other similar projects and for overall regional development. As the public authorities in Oradea have a leading role in the territorial management at local, county or regional level, the successful socio-economic reuse actions of these military heritage sites represent a part of a major redevelopment challenging mechanism, generating spin-offs effects in a wider sustainable urban development process. Effective land restoration and reuse in the city of Oradea, require integrated actions and approaches taking into account technological, legal, organizational, social-economic, scientific, informational, architectural and spatial land planning issues, together with the involvement of all public, private and non-profit stakeholders.

An integrated framework, working as a catalyst between the local authorities, the local community, and the private investors is required for improving the socio-economic sustainable development of Oradea. As sustainable development remains a fundamental objective of the European Union under the Lisbon Agenda (European Council 2000) and further leading policy documents (European Commission 2009), specific sustainable development policies should be incorporated in the (re)development practices which conserve, protect and preserve the urban environment, minimizing the negative impacts of brownfield sites existing in the interior of urban communities.

References

BERMAN L., ORR D., FORRESTER T. (2009), *Improving Community Health: Brownfields and Health Monitoring*, Environmental Practice 11 (3), 190-195.

BRITANNICA (2016), *Korean War (1950-1953)*, Encyclopædia Britannica, London.

COBÂRZAN B. (2007), *Brownfield Redevelopment in Romania*, Transylvanian Review of Administrative Sciences 21E, 28-46.

COCEAN P. (2005), *Geografie regională*, Presa Universitară Clujeană, Cluj-Napoca.

DE SOUSA C., GHOSHAL S. (2012), *Redevelopment of brownfield sites*, in: Zeman F. (ed.), Metropolitan sustainability: Understanding and improving the urban environment, Woodhead Publishing, Cambridge, pp. 99-117.

EUROPEAN COMMISSION (2009), *Mainstreaming sustainable development into EU policies: 2009 Review of the European Union Strategy for Sustainable Development*, European Commission, Brussels.

EUROPEAN COUNCIL (2000), *The Lisbon Agenda*, European Council, http:// www.consilium.europa.eu/.

FAHR-BECKER G. (2013), *Szecesszió*, Vince Kiadó, Budapest.

GRIMSKI D., FERBER U. (2001), *Urban brownfields in Europe*, Land Contamination and Reclamation 9 (1), 143-148.

ILIEȘ A., WENDT J. (coord.) (2003), *Europe between millenniums. Political Geography*

Studies, Editura Universităţii din Oradea, Oradea.

INSSE (2015), *Statistical data on population*, National Institute of Statistics, Bucharest.

LAMBRICH A. (2005), *Vágó József*, Holnap Kiadó, Budapest.

LOCAL HISTORY (2016), *Divizia 11 Infanterie – repere istorice*, Local History@Your Public Library, http://www.istorielocala.ro/.

LOZE P. (1992), *Le style Art Déco*, Flammarion, Paris.

MÂNDRUŢ S. (2013), *The Vienna Arbitrage / Diktat, in the present Romanian Historiography. Ethics "versus" History (1989-2010)*, Annals of the Academy of Romanian Scientists. Series on History and Archeology, 5 (2), 129-150.

MICHALSKI T. (2006), *A Geographic Approach to the Transformation Process in European Post-Communist Countries*, in: Michalski T. (ed.), The Geographical Aspects of the Transformation Process in Central and East-Central Europe, Wydawnictwo Bernardinum, Gdynia-Pelplin, pp. 7-26.

MONUMENTE BIHOR (2014), *Monumente din judeţul Bihor*, Fundaţia pentru Protejarea Monumentelor Istorice din Judeţul Bihor, http://www.monumentebihor.ro/.

MORAVÁNSZKY Á. (1988), *Építészet az Osztrák-Magyar Monarchiában*, Corvina Kiadó, Budapest.

NATO (1949), *The Washington Treaty*, NATO, Washington D.C.

ORADEA CITY HALL (2011), Plan Urbanistic Zonal – Parcul Industrial Eurobusiness II Oradea, Consiliul Local al Municipiului Oradea, Oradea.

ORADEA CITY HALL (2013), *Planul Urbanistic General Oradea. Etapa 2: Concept general de dezvoltare urbană*, Oradea City Hall, Oradea.

OSCE (1990), *Treaty on Conventional Armed Forces in Europe*, OSCE, Vienna.

PAŞCA M. (2005), *Operele arhitecţilor Vágó József şi Vágó László la Oradea*, Editura Tipo MC, Oradea.

PAŞCA M. (2010), *Oradea around 1900*, Editura Arca, Oradea.

PÉTER I. Z. (2008), *Nagyvárad műemlék épületei*, Nagyvárad, PBMET.

RUSS T. H. (2000), *Redeveloping Brownfields: Landscape Architects, Site Planners, Developers*, McGraw-Hill, New York.

SARNI W. (2009), *Greening Brownfields: Remediation through Sustainable Development*, McGraw-Hill, New York.

TOH (2016), *The Warsaw Treaty Organization (1955)*, The Office of the Historian, Washington D.C.

TSCHUDI-MADSEN S. (1956), *The Sources of Art Nouveau*, Aschehoug, Oslo.

U.S. SENATE (2002), *Comprehensive environmental response, compensation, and liability act of 1980 "Superfund"*, United States Code, 487-653.

VADAS J. (2005), *A magyar art deco – Stílusok – korszakok*, Corvina Kiadó, Budapest.

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BOOK REVIEWS

RESILIENCE AND TERRITORY. A CONCEPTUAL OPERATIONALIZATION AND METHODOLOGICAL POINTS OF VIEW (IN ROMANIAN)

Reziliență și teritoriu. Operaționalizare conceptuală și perspective metodologice

ALEXANDRU BĂNICĂ, IONEL MUNTELE (eds.), Ed. TERRA NOSTRA, Iași, 2015, 248 p. ISBN: 978-606-623-056-8

Reviewed by GEORGE SECĂREANU, University of Bucharest, Romania

This book presents a bold approach of the new problems the society faces including a complex territorial analysis based on statistical data, information from Corine Land Cover and other auxiliary sources (such as the electric company of CEZ, Open Street Map), which add to its veracity.

The book is structured on 4 different parts and 10 chapters. The first part contains only one introductory chapter, while the second part has 4 chapters debating the problem of resilience in Romania on different fields of analysis. The third part also contains 4 chapters containing case studies based on Romania's urban areas and also on the urban environment of Iasi. In the last chapter the arguments and the usefulness of the study are presented.

Chapter 1, *Resilience – Conceptual landmarks*, begins with the characteristics of the studied phenomenon and also with its inferences of "absorbing some places and to regenerate afterwards", exposing briefly the provenience of the concept but mostly explaining the ways of analysing that lie at the bottom of resilience. This includes the presentation of some additional concepts such as: sturdiness, absorptivity, adaptability or transferability, debated briefly through the opinions of some important scientific personalities. There are also being presented the different stages of the resilience system (transferability, the capacity to respond, the capacity of control and of monitoring), through which the phases undergone on different analysis scales of different administrative units are being reflected. It can be noticed that the resilience methodology contains different points of view coming from different scientific fields such as the technical, the ecologic, or the psychological field. In this sense, the book includes the review of a series of well-argued analyses (the small farmers, the green streets from Oregon, Uganda's tropical forest), which evidence that this paper is based on a well-documented methodology.

The second chapter of the book presents a complex analysis of Romania's demography in a European context and also a methodology adapted to the concept of resilience. The study highlights the territorial context of the Romanian villages, through different cartograms representing the overall balance of the population, the share of population living abroad, the migratory balance, based on the censuses between 2002 and 2011. The relations between the different groups of ages during the same period are evidenced, resulting an overall useful analysis of the Romanian demographic system. Thus, one can state that the problem of Romania's vulnerability is given by the ageing of the population, and here are presented the importance of this phenomenon and its impact based on an adapted typology.

The third chapter brings into attention a very common problem nowadays, related to the process of development – the renewable resources, such as the aeolian energy, the photovoltaics, the biomass, hydraulicity. One can read here a study case based on the electric company of CEZ in Romania. There is a relative independence in the energetic field in Romania and there is an evident competition in this sphere, which brings multi-

ple perspectives in developing the renewable resources. There is also presented, through some cartograms, the disposition of investments in renewable energy at local level. The most prevalent resource seems to be the aeolian one; it can be found in the districts of Constanta, Tulcea, Caras Severin but also in some districts from the region of Moldavia. The development of this area is attributed to the grants offered for the electric energy through the green tax that each consumer has to pay. Green energy, especially developed as a replacement for the polluting and usually dangerous energies (for example the nuclear energy), has been intensely sustained by different organisations due to the growing awareness of global warming.

Chapter 4 debates the resilience of transport in Romania. The problems of this specific sphere are well-known and mainly based on the slow-paced way in which the highways and the railways are being built/restored. If this poor rhythm of developing the transport infrastructure will be maintained, the economy of the country will suffer from the growing discrepancies between the regions that no longer benefit from different investments. The study presents some specific methodological approach for the transport issue and also applicable strategies of development for the entire Romanian territory.

Chapter 5 analyses the classical and the vacuum sewerage system with their specific advantages and disadvantages. A relatively poorly debated aspect is being taken into account here, and that is the impact of the resilience on the environment. The waste problem is recognized by the European Union which has well established goals but it fails sometimes in implementing them because it takes time for the communities to acknowledge the threat.

Chapter 6 is a complete analysis of the resilience of the urban areas of Romania, including the categories of resilience indicators structured during different study fields. The presentation of the intensified polarization of main Romanian cities together with the consequences felt by the more disadvantaged urban areas create a realistic image of the socio-economic context of Romania.

The seventh analysis is based on the city of Iasi and it mainly debates issues of urban planning. Also, there is presented a methodology that is adapted to investigating resilience for this kind of study and also to the evolution in time of the given area. The communist and the post-communist periods are highlighted to emphasize the most important changes of the urban area. Therefore, the analysis evidences the territorial transformation of the historical centre of Iasi, from a resilient perspective.

The following chapter is well documented, representing a practical approach of the correlation between an analysis of the resilience in the context of sustainable development and the benefits of implementing such a project in the metropolitan area of Iasi. Supplementing green areas after running a feasibility test based on the fragmentation of the landscape, the soil, the distance towards a source of water, the type of property, the density of the population, the proximity, indicates a certain safety of the long term effects over the quality of life on the studied area. Therefore, this particular chapter deals with a well-known problem of Iasi, taking into account that the city is among the most polluted with suspension powder in Romania.

The study concludes with a last chapter considering resilience as an indicator in different circumstances.

Nowadays, the approach of understanding the resilience of territories is very significant in the context of local economies that are being rebuilt after a long time of economic drought. The carefully detailed analyses (which were offering at times new directions of research, highlighting the authors' perspective) lead to new thinking regarding territorial decisions and policy making.

An important idea derived from the book is the fact that every space can be resilient and also vulnerable when compared to a different, more developed system; in other words, a perfect geometry cannot be reached, as the territory is developing depending on a series of different

factors inside the natural and the anthropic framework.

This particular paper can be considered a remarkable result of teamwork, exposed from an objective point of view, being dedicated to a better understanding of the problems and solutions wrapped around the indicator of resilience. The approach has its roots well anchored in the study field of each author in particular, resulting in well documented and well-argued case studies in which the indicator of resilience is being synthesized under different implementation areas.

As a conclusion, this study contains 12 tables, 29 figures and 34 maps, all of them contributing to creating a clear image of different territorial phenomena, in general, and of resilience, in particular. Approaching the research topic from different points of view and contexts, this book constitutes one of the most important bridges to studying resilience and the territory furthermore.

LA MÉTROPOLISATION EN QUESTION

By Cynthia Ghorra, Ed. Gobin, Paris, 2015, 116 pp.
ISBN 978-2-13-063062-3

Reviewed by RĂZVAN ANDREI VOICU, University of Bucharest, Romania

This book, part of the collection *La ville en debat*, analyses and explores the differentiations in character and functionality of the French and American metropolitan areas, as well as their role and impact in the urban landscape, social life and economy. Various related concepts are also explained throughout the book, concepts that define the two distinct approaches that the metropolisation had in France and the United States, respectively.

There are five sections in which the book is structured. It debuts with an introduction in which the material is being presented and it continues with three roughly equally sized chapters, ending with a short section that states the conclusions. While the second and third chapter discuss more punctual situations (metropolisation in France versus the one in the United States, respectively), the fourth chapter has a more abstract approach and it explores concepts and theories regarding a metropolis' character and influence in a territory.

The first chapter represents a short presentation of the context in which the two analysed countries developed their metropolitan areas and the way the metropolitan areas participate in the territorial dynamics shaped by the economic environment – more specifically, the capitalist system. It also introduces the two different approaches in which metropolisation is being experienced inside the territory. So that, there is the French territorial dynamics, in which a metropolitan area is viewed as a result of decentralization with an antagonism between the "France des flux" ("France of the fluxes") and "France périphérique" ("France of the periphery"); and there is the American urban environment, in which a metropolis is seen as a defining actor of mondialisation/globalisation and whose development is not linked to the centre – outskirts duality, but to the functional difference between the economic/residential spaces and the commercial/entertainment ones.

The second chapter deals with the metropolisation in the United States, a country where key concepts such as *global city-region*, *edge city* or *metropolitics* have originated in order to underline the way the city has restructured itself and its territory has contributed to the creation of a powerful metropolis. This chapter has two subsections – the first one details the concepts that are to be worked with during the analysis (ideas that originated in the mid-20th century), while the second one explores the manner in which politics and metropolisation are intertwined. There have been numerous works that thoroughly encouraged the institutional actors to become aware of the "metropolitan revolution" and emphasised their policies to the benefit of the metropolitan areas. This is mainly due to the fact that the metropolis has a certain advantage in the today's globalised world and that good policies applied on a metropolitan area can lead to strong intrametropolitan solidarity and intermunicipal cooperation. The importance of the capitalist system is emphasised, as the globalisation is said to have had a decisive role in the *deteritorialisation* and *reteritorialisation* of the space through the continuous fluxes of capitals, information, knowledge, and merchandise. The USA Bureau of Census has also played an important role in territorial relations, as it proposed the category of „micropolitan area" for cities inhabited by 10 000-50 000 people.

The third chapter moves on the other side of the Atlantic, exploring the facets of

metropolisation in France, and here the key word is *decentralisation*. This chapter is further divided in two parts – the first part discusses the late recognition of the metropolitan phenomenon in France, while the second one is a thorough presentation of "L'Acte III de la décentralisation". This chapter underlines the different stages in which the metropolis has been acknowledged. It describes the progressive integration of the metropolis in the debate regarding decentralisation and its institutional passage into the territorial reforms. "L'Acte III" recognises for the first time a functional territory that before it hadn't been formalised. Bruno Latour states that institutionalisation can equally be perceived as a mean of prolonging the suffering of the inhabitants. In his opinion, the people are lacking spatial landmarks, a problem further emphasised by the integration of global ideas in the daily life (metropolitan or not). The dynamics of reterritorialization explains this disorder, which can be remedied by the metropolitan institution if certain conditions are fulfilled. In Pierre Veltz's vision, the only entity capable of facilitating important changes in the economic functionality of space in a globalised environment is the metropolis, a flexible organism of productive chains and private and public services. The territory is viewed as an economic resource in which proximity is perceived as an essential element of reducing uncertainty and it allows the involved parties to have access to information and to exploit an environment favourable to innovation.

The fourth chapter is also divided into halves. While the first half explores the old ideologies and the new inequalities, such as fragmentation, the theory of public choice and the spatial mismatch concepts, the second half puts emphasis on the unique character of a metropolis, with regard on its hybrid status and its solidary relation with the rest of the territory. It confirms the dominance of the metropolitan paradigm in the two traditional scientific approaches, approaches that are put into perspective through a comparative exercise. The recognition of the metropolitan issue has triggered a critical position of the American researchers regarding the ideology of localism and the theory of public choices. It has fuelled the plea for spatial fairness and intrametropolitan solidarity. Furthermore, the arguments of this critical posture allow the seizing of the singularity of the metropolitan fact, the specific of a hybrid character that oscillates between the local and the global. The institutionalisation of the metropolis is expressed through a reorganisation of the national territory, a process that also modifies the competences of the state.

The final chapter represents the conclusions of the analysis and it states that the metropolitan issue is far from being a simple clash between the metropolitan and the non-metropolitan actors. The way the factors that shape the territory interact with space and with one another reveals itself as an act that requires inventiveness and courage. The collaboration with the Government/Parliament authorities is necessary, but only in a degree that helps the metropolis maintain their individuality and that propels them to maximise the efficiency of their own resources and environmental (natural, social, economic etc.) potential. Moreover, the metropolis plays such an important role, both to its inhabitants and to a particular region, that it is imperative to have a proper administration in order to ensure spatial coherence and prevent disruptions in the system's fluxes. This is only because the metropolis plays an extremely powerful role that stretches beyond the national territory – it can lead to interregional/global networks of metropolis that can collaborate in order to shape the global society and trigger concrete changes in key issues that the world is facing, such as climate change. Not having to implement changes through third parties, a metropolis can direct its actions straight to its citizens, which makes it an extremely efficient tool in solving pressing issues.

Aims and scopes

Analysis of the urban and regional condition needs to be interdisciplinary. In reality, urban researchers usually tend to belong to a discipline reflecting their training whether as sociologists, geographers, planners or any number of subjects concerned with the study of space and place. Our training very often endorses an appreciation of how other disciplines explore the city. For the journal the acknowledgement of the many disciplines that concerned with understanding cities and regions will be indicated by the different disciplinary back-grounds reflected in the papers published. Articles will be published by geographers, sociologists, planners, economists, political scientists, to mention just few of the disciplines involved in urban and regional study.

The Journal of Urban and Regional Analysis plans to be a key outlet publishing topical articles dealing with cities and regions. In later issues we plan to include sections devoted to notes and comments as well as a policy section outlining and discussing state and non-state initiatives aimed at improving cities and regions, together with the problems confronted by their implementation.

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1. The Journal of Urban and Regional Analysis seeks to redefine and revigorate the links between geography, sociology, planning, economy, political science. It aims to publish original academic research, critical studies and discussions of the highest scholar standard in the field of urban and regional development. Submitted papers will be evaluated on the basis of their creativity, academic quality and contributions to advancing understanding of the complex problems related to urban and regional development.

2. Submitted manuscripts must be original, unpublished contributions. They must not be submitted or accepted by any other publications. All articles submitted to the Journal will be available online, free of charge.

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GIDDENS A. (1990), *The Consequences of Modernity*, Polity Press, Cambridge.

MARSHAL R. (1995), *The global job crisis,* Foreign Policy, 100, 50-68.

*** (1938-1941), *General Romanian Population and Settlements Census on December the 29th 1930*, I-X, ICS, Bucharest.

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