

# URBAN SPRAWL FROM A COMPARATIVE PERSPECTIVE: THE CASE OF US CITIES VERSUS THEIR ROMANIAN COUNTERPARTS. IS THERE ANY REASON WHY WE SHOULD WORRY? (I)

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*The paper concerns itself with creating a theoretical framework for understanding sprawl within Romanian cities. It has a twofold structure: in the first part the emphasis is on identifying some indicators that best describe this phenomenon. Some key features referred to by American scholars when describing sprawl in the US are reviewed and analyzed. Special consideration is paid to the Romanian context that greatly differs from the American one. Also, this section focuses on possible causes that account for the current pattern of sprawl in Romania. In the second part of the paper some arguments are brought in order to support the idea that sprawl is becoming a serious problem that Romanian urban planners will have to deal with in the near future. Though sprawl may be seen as an indicator for economic growth- this further implies that sprawl has positive aspects, one should not forget the environmental and the aesthetic concerns regarding suburban development. Because cities are expanding at a very rapid pace nowadays, it is necessary for the decision-makers to understand what the pros and the cons for urban sprawl are; also some of its pervasive effects that may not be obvious many years from now need to be more in depth documented.*

*Transylvanian Review  
of Administrative Sciences,  
15 E/2005, pp. 77-85*

## I. Defining Sprawl

### 1. Background

In order to better understand how sprawl takes place within the Romanian cities and which are some of the peculiarities of this phenomenon as opposed to what happens in the US, a brief analysis of how urbanization took place in Romania over the 19<sup>th</sup> and 20<sup>th</sup> centuries must be provided.

It is widely accepted that American suburbanization has its roots in the nation's 19<sup>th</sup> century industrial revolution. Initially an urbanizing force, the industrial revolution drew people out of the countryside and into cities until, by 1920, for the first time in the American history, more people lived in cities than in rural areas (Levy 2003). In Romania, due to the extremely complicated historical evolution of the sub-states that were to form in 1918 the nation state known today as Romania, the industrial revolution did not act as a catalyst for urbanization. Over the 19<sup>th</sup> and 20<sup>th</sup> century, Romania continued to be mostly an agrarian country.

If one looks at the statistics that cover the time interval between 1930 (the first year for which nationwide data are available) and 1985,

it is easy to notice that the number of people living in the rural area continued to be greater than the number of people living in cities and towns. For example, in 1930 the percent of people living in the rural areas was 78.6, and by 1977 it declined to 56.7. It was just by 1985 when the ratio urban rural had finally become 1:1 (official census data on line at [www.recensamant.ro](http://www.recensamant.ro)). However, one should clearly understand that during this time interval the communist party and its policy agenda have been the main forces behind the urbanization process and not the industrial revolution. The communist leadership decided to heavily industrialize the country and during this process industrial towns have also been created. Rural migrants needed as workers in the newly created factories significantly contributed to the increase of urban population. In the years following the collapse of the communist regime (1989) the percent of people living in urban areas has slightly increased. However, it still continued to be relatively low as compared with other European countries by the end of year 2001. At that time 54.6% of the total population was living in urban settlements. The level of urbanization in Europe is currently 74.6 per cent with an expected annual growth of 0.3 per cent per year between 2000 and 2015 (United Nations Population Division 2001).

Urban sprawl is therefore a recent phenomenon within the Romanian society. However, it is progressing at an alarming pace. The somehow increased economic growth currently taking place is accompanied by uncontrolled and chaotic real estate developments. Leapfrog developments, big-box retailers at the fringe of the city, increased traffic congestion and pollution are nowadays part of the daily urban life. More and more stakeholders are complaining about the unplanned character of growth and it is easy to predict that such complains will increase in the future unless something is done.

## *2. The spatial pattern of urban sprawl in Romania?*

Even within the US, where sprawl seems to generate a common pattern of development all over the country, there is still considerable debate over what sprawl really is. Most scholars agree though that sprawl is (Gillham 2002):

- Essentially a suburban phenomenon- beyond a city's limit, transitional or on the urban fringe;
- Generally characterized as low density, favoring automobiles,
- And possibly scattered, unplanned, or ad-hoc in its pattern.

Other scholars point out that there are three main spatial patterns of urban sprawl: low-density continuous sprawl, ribbon sprawl, and leapfrog development sprawl (Barnes and all 2001). According to them, the study of these patterns may give the reader a better understanding of what sprawl really is and how it manifests itself.

- **Low-density sprawl** is the highly consumptive use of land for urban purposes along the margins of existing metropolitan areas. This type of sprawl is supported by piecemeal extensions of basic urban infrastructures such as water, sewer, power, and roads.
- **Ribbon sprawl** is development that follows major transportation arteries outward from urban cores. Lands adjacent to corridors are developed, but those without direct access remain in rural uses/covers. Over time, these nearby "raw" lands may be converted to urban uses as land values increase and infrastructure is extended perpendicularly from the major roads and lines.
- **Leapfrog development** sprawl is a discontinuous pattern of urbanization, with patches of developed lands that are widely separated from each other and from the boundaries, albeit blurred in some cases, of recognized urbanized areas. This form of development requires the greatest capital expenditures to provide total urban services at the time of development.

Barnes and all (2001) also briefly describe the concept of **exurban development**. Though not necessarily a form of development equated as sprawl, exurban development is worth mentioning in

the context of the analysis herein. This type of development consists of scattered non-farm residential dwellings in predominantly agricultural and forested areas located beyond the suburbs of cities. It has to be mentioned that it differs dramatically from the commonly recognized urban-suburban-rural pattern of land use. Exurbanites are often former urbanites who desire the solitude and perceived amenities of “country-living” and/or purchase second homes as rural retreats and as investments.

How can one use the US approaches to urban sprawl in order to accurately describe what suburban development looks like in Romania? And how relevant are they? The analysis herein emphasizes the idea that the spatial pattern of urban sprawl in Romania is very similar to what one can see in the US. It certainly has different causes underlying its occurrence but its spatial pattern is very much the same. The following arguments are meant to support such a claim.

As in the US, sprawl in Romania is a **transitional or suburban phenomenon**. Let's think for a moment where sprawl usually occurs: it is either at the outskirts of the existing cities or within the limits of the rural villages that border the urban settlements. The transitional character of sprawl becomes even more obvious when old neighborhoods are contrasted against the newly built, sprawling ones. The later are easy to spot because they promote a different type of housing- mainly detached, single family homes - and a different land use pattern - it segregates uses and provides no public spaces and amenities. This type of suburban development clearly represents a break with the existing shape of the urban built environment.

It has an **unplanned and ad-hoc character**. Suburban neighborhoods have started to become a reality in Romania merely in the recent years. Most of the municipalities have not been prepared to properly manage suburban growth and the outcomes associated with it. Many cities and rural communities lack an updated comprehensive plan. Because of a permissible legal framework, weak enforcement of existing regulations, and lack of expertise on the behalf of planners, urban growth is unplanned. Let's take an example of haphazard growth documented by a local newspaper (Monitorul de Cluj, July 9<sup>th</sup>, 2005). In a previously low-density, single houses district, two and three floors apartment buildings have started to be built. The old residents became angry at the lot coverage ratio and the reduced setbacks used on the newly built parcels. However, as unbelievable as it may sound, they found out that the construction of the apartment buildings is perfectly legal. The legal document that regulates the setback from the property line dates back to 1865 (!). One can just imagine how unprepared municipalities are to manage urban growth and sprawl.

There are other common characteristics regarding the spatial pattern of sprawl in US and Romania, respectively. **The segregation of uses** is usually taken to an extreme within the suburban neighborhoods. While in the US this seems to be an exacerbation of a pattern already existing within the inner cores, the phenomenon is definitely new for Romanian cities. If one closer scrutinizes the structure of the existing neighborhoods, it is easy to see that retail such as grocery stores and offices have always been intermingled with residential homes. Also, these suburban neighborhoods are characterized by a **lack of open, public spaces**. At least in Romania, the inner cores have been structured as to provide a lot of plazas and other public and semi-public spaces that allow people to interact and generate a fairly continuous traffic on the sidewalks. These public spaces that encompass retail as well are known for generating some sort of a community spirit and a perceived feeling of safety. Because the land at the fringe of the city is privately owned, the municipality has no opportunity for providing this kind of spaces.

A final argument refers to the aforementioned spatial patterns of sprawl. Several of them can be said to also exist within Romanian cities. Low-density and exurban sprawl are currently a reality in Romania. These two patterns occur mostly in the case of residential neighborhoods/settlements. Because in most cases municipalities are unable to provide the necessary utilities, the development takes place on a piecemeal basis. It has to be said though that densities are much higher in our country

than in the US. This is somehow normal as US is among the few countries in the world that can afford such low densities. Exurban development can also be seen in Romania. For example all the rural areas that have been transformed into resort-type communities can be considered exurban development. The ribbon sprawl is less usual in Romania, however it occurs in the case of commercial and office. Along some of the major transit corridors that pass through the major cities of Romania, strips of retail and office are not completely unusual. Perhaps the most known example is Bucharest.

By means of summarizing, we can argue that Romanian sprawl is a transitional pattern of development though more compact and denser than its American counterpart. Also, for the time being is mainly residential, thus presenting similarities with the suburbanization process in the US in the 1960s.

### *3. What makes sprawl in Romania?*

In the previous section several key features that best describe sprawl as a suburban development trend in Romania have been identified. However, in order to be able to “tackle” this problem, a clear understanding of the causes that generate it is needed. In the first part of this section several of the forces driving the suburbanization process in the US are mentioned. Then, the focus shifts to the causes that generate urban sprawl in Romania. A distinct paragraph is dedicated to what it is believed to be a paradox - suburbanization started to occur though some of the factors that favor it both in US and worldwide are not currently in place in Romania.

In the US the suburbanization process rapidly accelerated its pace after World War II. As scholars point out, the forces behind this process are numerous (Levy 2003; Glaab and Brown 1973; McKelvey 1963). Mortgage finance was readily available on attractive terms. Employment was high, and incomes were rising rapidly. The nation thus had more wealth to spend on land development, on housing, and on additional transportation that that suburbanization required. Automobile ownership rose: At the end of World War II, there was one automobile for every five Americans; by the 1990s, there was one automobile for every two Americans. Paralleling the increase in automobile ownership was a great expansion of the nation’s highway system. Shortly after the war there began a major surge of highway building by the state, powerfully encouraged by federal subsidies. Decentralization has also been promoted by improvements in electronic communication. Finally, the disinvestment in central cities coupled with cheap land at the outskirts of the city further promoted this trend (Neamtu 2003). It can be said that almost the same forces have been driving the urbanization process in Western Europe as well (United Nations Environment Programme). It is important to keep in mind the idea that suburbanization both in US and Europe was not an ecological phenomenon, something that is part of the normal, natural evolution of cities. Rather, sprawl is result of policy decisions that influenced either directly or indirectly the preference of individuals to live in the suburbs. This is important because it means that sprawl can be fought and prevented by means of adequate policies.

Let’s start the analysis focused on the Romanian case by pointing out what factors haven’t contributed to the occurrence of sprawl. Sprawling neighborhoods developed despite the unattractiveness of the mortgage systems, poor road infrastructure and huge costs associated with suburban land and home purchases. The mortgage system for homes and commercial properties is still in its infancy in Romania despite the significant progresses that have been made during the last three years. According to a policy report (Urban Institute 2005), available mortgage loans in Romania are “predominantly short-term, variable-rate products, and currently represent only small proportions of total bank assets. Mortgage lending, however, is increasing rapidly and can be expected to continue to do so”. If we go back in time to 1999, the same policy institute wrote a much more gloomy report with regard to the mortgage system in Romania (Urban Institute 1999).

According to existing data it is safe to claim that the road infrastructure was not a catalyst for the development of suburban settlements as well. The total length of national roads is 78,492 km (a density of 32.9 km/100 km<sup>2</sup>). The Romanian road network is inadequate even though a clear process

of improvement has been taking place in the last few years. Modernized roads are approximately 25% of the total length of the road network – much less than in EU countries. There are only 113 km of motorways in Romania, i.e. Bucharest-Pitesti and Fetesti-Cernavoda (European Federation For Transport and Environment 2004).

Finally, land in the suburbs is not cheap. In the US, one of the reasons people prefer to build homes on previously undeveloped land deals with low costs. It is more expensive to engage in redevelopment projects downtown as land or buildings may be contaminated, older homes need to be brought up to the nowadays standards, and so on. The director of the planning department in a small town claims, while trying to explain why developers are not willing to invest in the downtown, that the price of land drives the construction of new buildings. While somebody has to pay roughly \$100/square foot downtown, it is merely \$5/square foot in the suburbs (Neamtu 2003). In Romania land in the suburbs is in certain cases much more expensive than the one within the inner cores. In Bucharest for example, in 2004 the average price for a square meter of land downtown was 26,1 Euros (Adevarul June 12<sup>th</sup>, 2004) as opposed to 85/100 Euros per square meter north of the city, in one of the most expensive suburban areas. Of course, in the case of Romanian city, this situation is also determined by the fact that land is a much scarcer resource than in the US and some downtowns are already built-up.

What generates then urban sprawl? What are the factors that act as catalysts in the absence of the more traditional ones? In the absence of a planning literature focused exclusively on Romanian cities, several of the reasons listed below are “educated guesses”. As pointed out in the next section, more quantitative studies, based on specific indicators, are needed. However, as a first step, based on existing studies about societies in transition, the following causes have been considered.

In the first place, the psychological factors underlying this process have to be mentioned. During the communist regime, people have been forced to live in multi-family apartment blocks, being deprived of intimacy and the possibility to have a house built according to their own preferences. The ultimate goal of the communist party was to make disappear any differences regarding the social or economic status of individuals. Even people with prestigious professions such as doctors or lawyers have been sometimes forced to reside within these multi-family apartment blocks. An American scholar (Levy 2003) describes this phenomenon as a form of social control that made such developments attractive to the totalitarian state. The collapse of the communist regime allowed people who could afford to live in single-family houses to do so. Because the party overemphasized the idea of living in common and sharing some facilities, people are now resenting this kind of residential and would probably want to move into single-family housing. What is somehow unique for Romania is the fact that suburbs are currently being the privilege of the upper, high-income class and not of the middle class as in the US. There are two factors that account for this situation. First, people want to translate their socio-economic status into single-family housing ownership. It is thus somehow normal that the first to fly to the suburbs were the wealthier ones. Second, as mentioned before, land is scarce and thus implicitly expensive.

Land ownership also represents an interesting cause that accounts for the existing sprawl. Before 1989, most of the farm and forestland situated in villages was cooperatively owned. People used to work the land but not to own it. Also the land located at the fringe of the city has been nationalized during the communist regime, the state being its only owner. After the revolution, the political decision-makers considered that citizens should regain control over the land they owned before 1945. As a result, the Act no.18/1991 (subsequent amendments as well) was issued and a chaotic process of reclaiming ownership started (see also Veress). A great deal of corruption has been associated with this process as in some cases it was up to the courts to determine who will get what parcel of land. Both the elite and the citizens soon realized the potential for land speculations. In many cases,

people who were no longer living in the rural areas got back the lots their parents or grandparents used to own. Due to the fact that farmland for agricultural uses is not highly priced, most of these people assessed their alternatives in order to be able to sell it to others that would be interested in developing it for residential uses. In some cases these people waited for years for somebody to start building residential housing in the area and thus to have an increase in the value of all the properties located nearby.

Financial and real estate markets and their functioning within the Romanian context also account for a great deal of the existing sprawl. In the last years, all the country reports issued by International Financing Institutions such as IMF, European Commission, World Bank emphasized the fact that Romania lacks a sound financial system. In the absence of safe investing options such as stock, people generally channel their saving into the real estate market. This market has been ever since 1989 an extremely speculative one. This feature of the real estate market further generated an increase in the cost of land. Thus, it can be argued that the high cost of land within suburbs is mainly due to two factors: in the first place, land is scarce; second a speculative real estate market drives it even higher.

Land use control tools, regulations and the structure of the Romanian administrative system also determine the character of sprawl. In the first place, municipalities do not carry out the comprehensive planning process as to get the most out of it. Therefore municipalities have no holistic vision about how and where growth should occur in the future. Second, there is a weak enforcement of regulations concerning for example set backs, permissible height of buildings, lot coverage, design and so on. Because neighborhood associations are still weak, the state agencies are the only actors that could possibly enforce these regulations. Third, as mentioned before, sprawl occurs either at the fringe of the city or inside villages that border the city. From a legal point of view however, different jurisdictions may happen to exercise control over these suburban developments. In this case, one can imagine how hard it is to come up with a coherent development strategy for a wider suburban area. Theoretically, the way in which the administrative system is structured should help solve this issue. At the county level, development strategies are coordinated and a regional plan should be in place (Minea 2003). In reality, things do not happen exactly as described above. For most of the time, county councils may provide technical expertise for villages, however cities are left to be independent. What usually happens is that small villages discover what a valuable resource for their budget commercial or residential developments can be. Also, these new developments indirectly imply that in the near future the village may be hooked up to water, sewage or gas municipal systems. From a regional planning perspective, a solution could be for these bordering villages to be annexed by the city. However, the procedure is extremely complicated and if the villages are resisting this endeavor will probably fail.

It can be argued that urban sprawl in Romania is fostered by factors that are closely imbedded into the local and national context. A better understanding of these factors is nonetheless needed in order to be able to fight sprawl.

## **II. The debate on the consequences of urban sprawl: good or bad?**

Why do we need to fight sprawl? Why is it sprawl such an unhealthy land use pattern? And should one consider all suburban developments as being sprawl? In this last section these questions are answered and the need for more specific data is emphasized.

Let's start by saying that urban sprawl, at least according to American scholars, is an unhealthy land use pattern because of the outcomes, both direct and indirect, associated with it. These outcomes include air pollution and traffic congestion, lack of physical activity, degradation of prime farmland, over-dependence of children and elderly on their families, weak social ties and lack of community spirit, disinvestments in central cities and further segregation of minority and low-income groups

and so on (Gillham 2003; Duany, Plater-Zyberk and Speck 2000). Of course, there are scholars who claim that the situation is not so clear-cut and that in certain cases empirical data do not prove the existence of a causal relationship.

Very few studies, if any, have been conducted in Romania in order to document the effects of sprawl. In this context it is hard to claim that sprawl needs to be fought. However, in the following line we try to point out several of the potential negative outcomes associated with urban sprawl. We also emphasize that several of the “perceived benefits” of sprawl may have a hidden side as well.

Let's start by mentioning perhaps the most alarming outcome of sprawl in Romania: environmental pollution and degradation. Studies conducted in the US showed that suburban homes that have septic tanks instead of being hooked to the municipal sewage system need to be located at greater distances from each other in order to prevent health hazards (Levy 2003). In our country it is a common situation for suburban houses to have septic tanks. Nonetheless, the lot size - and implicitly the distance at which they are located from each other- is less than 1 acre (the standard within the US). While smaller lots may be acceptable due to the existence of less land, this still continues to be an issue. There are other situations when the septic tanks are not built in accordance with the legal provisions. However, due to the weak enforcement of legal provisions most of the owners in a community do not even realize they can harm each other and the environment.

Also, the aesthetic dimension of sprawl has to be discussed. True, it may not be that important but on the long run it may have indirect pervasive effects that are not fully understood nowadays. Let's consider the case of old, medieval towns that have specific features that make them attractive for tourists. In most cases, suburban communities will develop at the fringe of the city. As an extensive system of highways is not in place, people coming to visit the town will nonetheless still go through these transitional neighborhoods. One can imagine the impact of such neighborhoods on tourists. And this is just an example among others that can be further imagined.

Another negative aspect refers to how sprawl limits the future capability of cities to plan. In the US because of the vastness of land new communities can be created anytime. Even if there are constraints as well, it is usually easier to find land to put a new, planned development on. In our country land and especially land around cities is limited. Twenty years from now planners may envision great things for a certain city and its suburbs but they would be difficult to implement. Once these suburban neighborhoods are built, the haphazard land use pattern is very hard to alter.

Let's now take a closer look to what we called “perceived benefits” of urban sprawl. Because of them it may not be obvious why we need to fight sprawl. Sprawl has often been seen as an indicator for economic growth and a potential tool to deal with the shortage of housing currently existing in our country. At the end of 1999, the Romanian population of 22.46 million relied on a total housing stock of 7.88 million units - an average of 351 dwellings per 1,000 people. Compared with other countries in transition the size of Romania's housing stock might appear adequate. Nonetheless, this apparent aggregate fit between housing supply and demand may hide a possible mismatch in terms of potential households or geographical distribution. For example, observation and reports received during the study would appear to confirm the possibility of a real housing shortage in Bucharest and some other urban areas (Housing stock and construction, Romania on line at <http://www.unece.org/env/hs/prgm/cph/romania/2chapter2.pdf>). Sprawl occurs exactly at the fringe of these big urban centers where housing is a problem. However, in our opinion, suburban housing does not necessarily solve this problem. Why? Because a significant percent of the housing needed refers to affordable housing. In this case, due to the fact that suburban housing is expensive and high income oriented, sprawl is not going to solve the housing shortage regarding affordable housing. True, to the extent to which people are actually moving to the suburban communities, downtowns may become less congested.

This section represents just the first step toward really assessing the effects of sprawl. More quantitative studies are needed.

### III. Conclusions

Urban sprawl within the Romanian context can be best described as a mix of similarities and dissimilarities to the same phenomenon in the US. The most important thing is that though suburban neighborhoods are denser and sometimes located within the legal boundaries of the city, Romanian sprawl is still considered a transitional process from urban to rural. There are some factors that actually determine the current pattern of suburban development. The psychological dimension as we term the desire of people previously prevented to build and own single-family homes to move to the suburbs is an important catalyst of sprawl deeply imbedded into the local context. Other factors that are also related to the Romanian context refer to a highly speculative real estate market. As a paradox, we mentioned the fact that suburbs have started to develop even if an extensive road system is not in place.

However, the sprawl debate grows more and more interesting as people try to assess whether it is a good thing or not. From an economic point of view, sprawl in Romania seems to have less drastic effects than in the US. We mainly refer here to the fact that suburbanization hasn't yet generated deserted downtowns and the migration of jobs, retail and office from the inner cores to the suburbs. One should not forget that there are other dimensions that count toward terming sprawl bad or good. Environmental and aesthetic concerns must be taken into consideration.

Finally, there are a couple of possible research alternative that are worth more in depth studying. Because data are not available for smaller units such as neighborhoods or identifiable suburban subdivisions, we could concentrate on such a unit and generate some indicators that will allow us to answer questions such as: how dense are in fact these suburban tracts, how much individual preferences account for this type of life, are there any serious environmental issues that the suburbs are facing and so on.

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