

ELŻBIETA LITWIŃSKA

WROCLAW UNIVERSITY OF TECHNOLOGY, POLAND

THE DEMOGRAPHIC ASPECT OF CONTEMPORARY URBAN PROCESSES (THE CASE OF PORTUGAL)

DOI: <http://dx.doi.org/10.2478/v10089-011-0005-x>

ABSTRACT. In the last decades in most European countries urbanization can be observed, characterized by a tendency towards expansion of big cities into their environs with a decreasing number of inhabitants living in urban cores (urban sprawl). The result is networked, poly-centric forms of concentration. These new structures are the result of the changes in the organization of the production process, the increasing role of the service and information based economy and the growing mobility of the population.

The aim of this paper is to present the demographic aspect of urban processes in Portugal, in the country as well as in the Lisbon Metropolita Area.

KEY WORDS: Portugal, Lisbon Metropolitan Area, urbanization, urban sprawl, migrations, natural increase, settlement system.

INTRODUCTION

In the analysis of urbanization in Europe in 1950–70 Hall and Hay (1980) identified considerable variability in urban trends. In Great Britain they found a strong tendency towards decentralization of the population away from urban cores, akin to the North American pattern. Similar trends could be observed in Northern Europe, but in a later period. In Italy, Spain and Portugal centralization of the population was still the norm.

Now, at the beginning of the 21st century the pattern of urbanization similar to the American pattern is becoming common in Europe (Kasanko et al., 2006). This phenomenon can be observed in such countries like Portugal and countries of Eastern Europe. In these countries to some extent political events have influenced on processes of urbanization. Carnation Revolution (1974) and membership in

European Community (1986) were important for Portugal, in turn transformation of political system (1989) – for Eastern Europe.

It was decided to analyze the example of Portugal and the most important Portuguese metropolitan area – Lisbon.

MODERN URBANIZATION

Processes of urbanization are influenced by factors related to the economy, transport, the settlement system, and population (Fig. 1). The globalization trends have led to increasing international competition between cities for economic activities. The role of agriculture and the manufacturing industry is diminishing, and the significance of the tertiary sector is growing. A new location pattern forces activities to seek sites in fringe or suburban areas, where prices of parcels are lower.

Throughout the 20th century the combination of rising car ownership and highway building caused to reduce transport cost and allowed developments to sprawl at greater distances and residents to live at greater distance from their places of work, shopping and leisure.

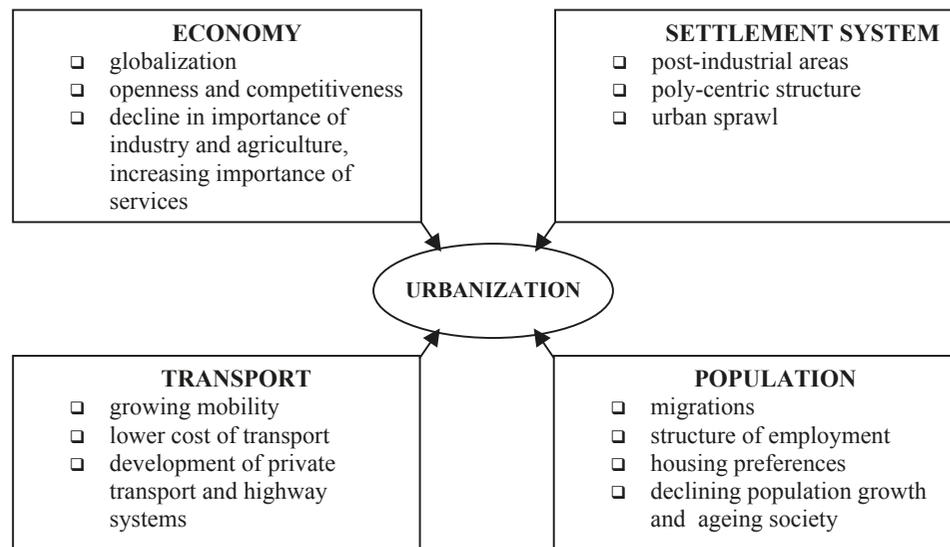


Fig. 1. The influence of economy, settlement system, transport and population on urbanization

Source: Developed by the author

Urban functions have been transforming. Many small towns have been losing their supply functions for rural areas (Heffner, 2005). Towns having strong roots in the secondary sector are in economic downturn. The collapse of industrial activities has caused social problems (Węclawowicz, 2003) and the emergence of degraded post-industrial sites. Retail functions are locating in suburban or even in out-of-town locations. Financial services prefer large urban centres.

The housing preferences are reflected in demand for low density and single family homes. Rising real incomes and a high level of car use allow people to live in better conditions outside the city. It has encouraged the dispersal of residences besides the dispersal of economic activities. The car has facilitated isolated urban development in a wide urbanized zone around the city proper. What the car has done is to greatly speed the processes by which cities are losing population and functions from their centres. In the United States of America such low density and uncoordinated urban growth, urban sprawl, were reinforced after the Second World War. An assessment of this phenomenon is generally negative because urban sprawl means loss of agricultural land, environmental degradation and crowded roadways (Ewing, 1994; Chin, 2002; Litwińska, 2008).

There can be no doubt of the enormous importance of these processes in the polarization of settlement systems and developing large cities.

The demographic aspect of the urban processes belongs to the most important (Domański, 1997, 2005; Szymańska, 2007, 2009; Parysek, 2008). Focusing on this aspect the following should be taken into consideration: migrations, natural increase and social mobility.

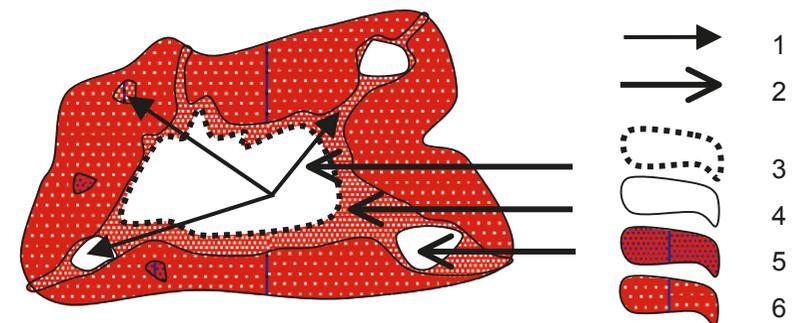


Fig. 2. The schema of main types of population movements during urbanization in metropolitan areas

Explanation: 1 – movement from metropolis; 2 – migration to metropolitan area; 3 – metropolis; 4 – small and medium size towns; 5 – area of urban sprawl; 6 – zone of influence of metropolis

Source: Developed by the author

Nowadays movement from villages to towns and cities plays a smaller role in Europe. Metropolitan areas, as the most dynamic developing elements of settlement systems, are becoming destinations for interregional and international migrations. In these areas there can be observed urban sprawl, the exodus from the metropolis to the fringes, along highways and commuter railway lines and to small and medium size towns lying in the zone of influence of big cities. Development can be scattered with the tendency to discontinuity because it leap-frogs over some areas (Fig. 2).

Since the mid-1960s in many developed countries international migration has become the main source of growth in the population. The decline in population in cores of big cities is affected not only by the escape of richer inhabitants, but also by reducing population growth and ageing.

The change in the number of the urban population may also have a non-spatial nature. After abandoning agricultural activities and accepting the urban lifestyle the rural population living in an area of urban sprawl is becoming an urban population.

URBANIZATION IN PORTUGAL

Situated in extreme southwest corner of Europe Portugal occupies 1/6 of the Iberian Peninsula, bordered by the Atlantic Ocean to the west and south and by Spain to the north and east. Continental Portugal counts approximately 10 million inhabitants and has an area of approximately 92,000 square km.

Until the middle of the 20th century Portugal was the rural country. In the second part of this century there were dramatic changes in relocation of population (Table 1) (Rodrigues, 2009).

The process of urbanization started in the 1950s and was particularly intense in the 1960s and 1970s. In the decade of 1960s the rural exodus started. For the period 1950–1970 some municipalities lost more than 50% of their population

Table 1. Portugal. Change of population (%) in 1960–2001

	1	2	3
Lisbon	0.6	-17.8	-14.9
Lisbon Metropolitan Area	64.2	1.5	5.6
Porto	7.9	-7.6	-13.0
Porto Metropolitan Area	33.8	4.5	8.0
Continental Portugal	12.6	0.4	5.3

Explanation: 1 – 1960–1981; 2 – 1981–1991; 3 – 1991–2001

Source: Marques da Costa, 2007

and simultaneously the number of inhabitants increased in the surroundings of Lisbon and Porto as well as in areas located on the coastal zone from Viano do Castelo to Setubal (Gaspar, 1980).

Most of the urban expansion in the 1980s and 1990s in urban areas of Lisbon and Porto had the form of urban sprawl (suburbanization) along the main routes and completing the discontinued urban fabric of cities. Also it was a spectacular growth in small and medium-sized town in Algarve coastline and along coast of Atlantic Ocean (Gaspar, 1980; Soares, 2002).

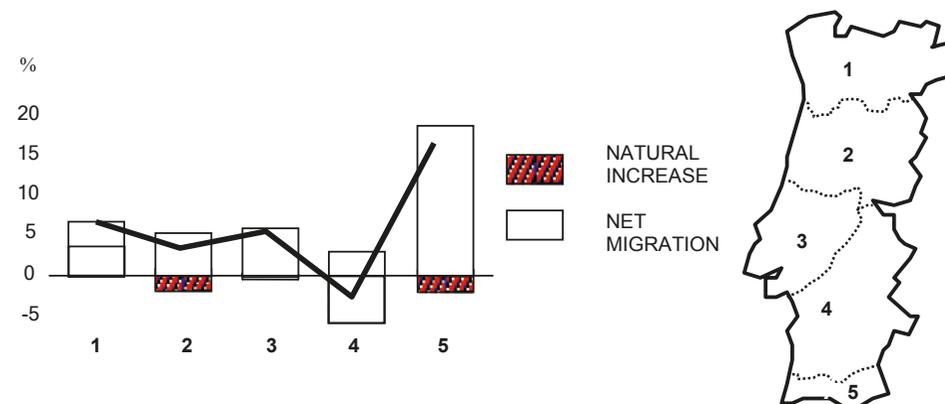
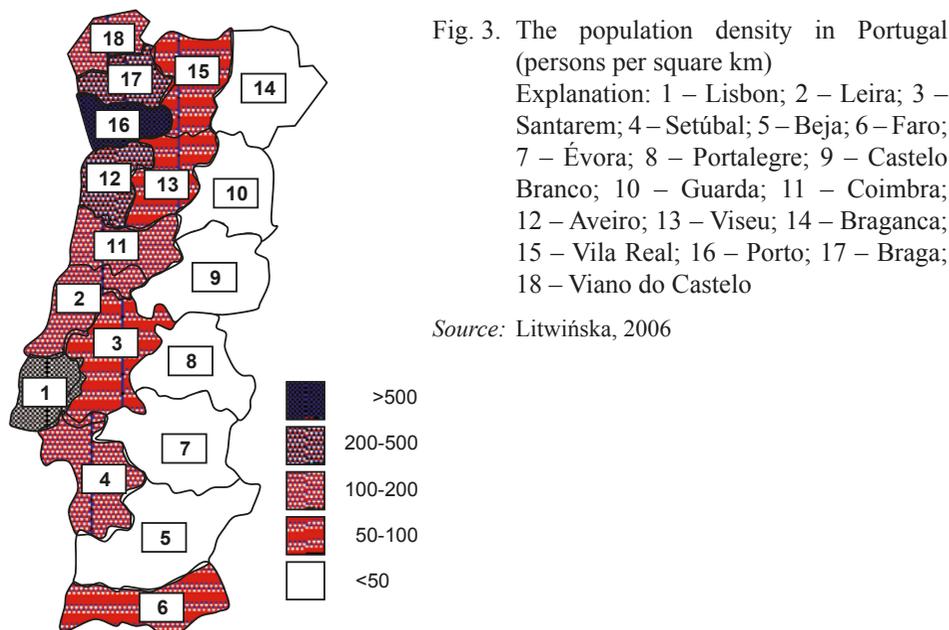
According to The Portuguese National Spatial Policy Program (PNPOT): ‘The evolution of the urban system in Portugal has as its background two complementary trends: depopulation of many rural areas and urbanization of population. The process of urbanization in Portugal resulted in a setting of the urban system characterized by: (a) two metropolitan areas of Lisbon and Porto with dynamics and processes that differentiated internal structure, which brought together a large dimension (population and physical) in national terms with fragile international functional projection; (b) an extensive coastline urbanization with diffuse where emerge some polynuclear systems and several large urban centres; (c) a linear urbanization along the Algarve coast; (d) a network of small and medium-sized cities within, in some cases configuring axles and urban multi-pole system’ (PNPOT, 2007: 56).

Portugal belongs to the European countries with a relatively low rate of urbanization. While in Europe the fraction of the population living in urban areas equals 73%, it is estimated that in Portugal this indicator is 55%. In contrast, if we take into consideration the population living in towns and cities it appears that the indicator equals only 39% (2004). During the period 1991–2001 the urban population growth was 3.9%, while for the whole population, 5%. It was caused by the depopulation of Lisbon and Porto and urban processes in new areas (Atlas das Cidades de Portugal, 2004).

Inhabitants of continental Portugal are not evenly distributed. The average density is 111 persons per square km, but some districts are much more crowded than others. The eastern districts bordering Spain have the lowest population density. Coastal districts from the northern border down to Setubal are densely populated. The highest concentration of people is registered in Lisbon and Porto districts (Fig. 3).

The difference in the population density is the result of many factors: topography, interregional and international migrations, history (Portugal was engaged in expansion towards Africa, Asia and South America), and nowadays the quickly developing metropolitan areas of Lisbon and Porto.

In the period 1991–2007 (Table 2) the Portuguese population increased, but Portugal remains a country with low fertility and decreasing net migration.



In 2007 the natural increase was negative, a situation that was recorded in 1918, due to pneumonic flu, while the pace of population growth has slowed down, and immigration flows remain its important component.

Table 2. Portugal. Demographic data

	1991	2001	2007
Population	9,967,800	10,293,000	10,608,000
Births	116,286	112,774	102,492
Natural increase	12,404	7,682	-1,020
Net migration	-20,219	65,000	19,500
Fertility rate	1.56	1.46	1.33
Average age of women on the birth of their 1 st child	24.9	26.8	28.2

Source: Carrilho, Patricio, 2003, 2007

The number of new marriages is tending to fall and the number of divorces is showing an upward trend. The average age of both men and women at the time of their first marriage has increased and the average age of women on the birth of their first child has also risen. The population is ageing progressively as a result of a fall in birth and an increase in longevity (Carilho, Patricio, 2003, 2007; Maślanka, 2007).

In the recent past the population has increased only thanks to the influx of migrants. Most immigrants are from former Portuguese colonies and Soviet republics. There is a growing population of retirees from the United Kingdom.

Data for regions confirm this (Fig. 4). For the years 1991–2001 net migration had a decisive impact on the growth of population in regions. The decrease in population occurred only in Alentejo, where migration failed to offset the negative population growth. It is worth noting that the tourist region Algarve attracts new residents. Only in Norte, where the population is the most religious, was the natural increase positive.

Unfortunately there is a lack of migration data for urban and non-urban populations separately.

Dynamics of demographic processes in Portugal are well presented by the change in population of municipalities. In the period 1991–2001 population growth occurred in metropolitan areas of Lisbon and Porto, although both Lisbon and Porto showed a decrease. In addition, increments are recorded along the west coast (from Lisbon to the border with Spain), in Algarve, and in a few municipalities of the central and eastern part of Portugal. The highest increases range from 20% to 51%. Municipalities bordering Spain record falls from 12% to 19% (Atlas de Portugal, 2008).

It appears that areas with the highest dynamics of urbanization are situated in the municipalities which have the largest population increase (Fig. 5).



Fig. 5. Areas of the largest dynamics of urbanization
Explanation: 1 – towns/centres of urban areas; 2 – metropolitan areas of Lisbon and Porto; 3 – border of the highest dynamics of urbanization

Source: www.aml.pt

The decrease in the number of inhabitants in municipalities is caused by attracting population by the fastest developing urban centres and the smaller role of agriculture. Towns and cities being in the sphere of influence of Lisbon and Porto and situated in the tourist region of Algarve have the biggest chance to develop.

Service industry employment is related to the degree of urbanization. The structure of employment in Portugal reflects changes in the economy. While in the 1960s the percentage of employment in agriculture was 44%, in the secondary sector, 33% and in tertiary activities, 23% (Piskozub, 1976), in 2002 these indicators were equal: 11.8%, 30.7% and 57.5% (Instituto Nacional de Estatística).

The Portuguese urban system is characterized by the large number of small towns and two dominant cities, fast developing metropolitan areas of Lisbon and Porto, where the new form of urbanization can be observed. The example of Lisbon will be taken into consideration.

The Lisbon Metropolitan Area (LMA) was created via Law Decree 44/91 in 1991 (Alden, Pires da Rosa, 1996) and consists of 18 municipalities on both the north and south banks of the Tagus River. In this area 25% of Portugal's population lives, 32.7% of the national employment is located and the contribution for GDP surpasses 36% (Atlas da Area Metropolitana de Lisboa, 2005). In the LMA there can be observed a modern type of urbanization.

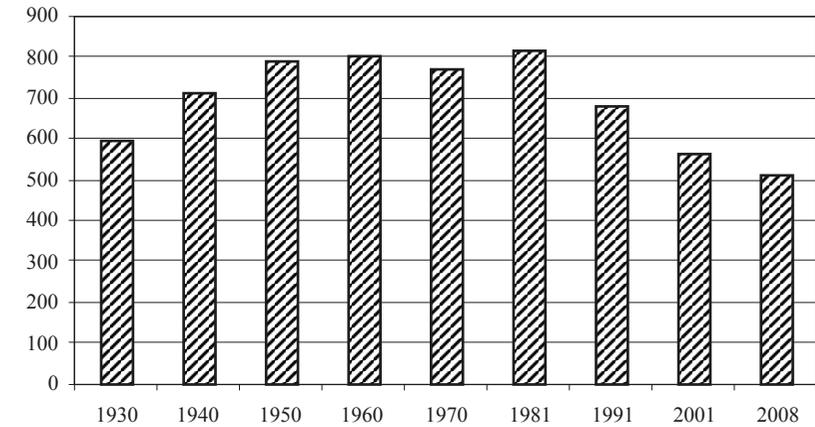


Fig. 6. The number of inhabitants of Lisbon (in thousands) in 1930–2008

Source: Developed by the author

Until the 1960s the population of Lisbon increased but then the number of inhabitants began a slow decline. Only in the mid-1970s did waves of refugees from the former Portuguese colonies cause growth (Fig. 6). In the decade of the 1980s the decrease was equal to 17%, in the 1990s, 15% and in the period 2001–2008, 9.5%.

In the Lisbon Metropolitan Area in the last decade of the 20th century a fall in population is also observed for Amadora by 3% and in the industrial Barreiro by 8%. In contrast, the largest increase was recorded in Sintra (situated to the West of Lisbon) by 39% and on the other side of the Tagus River in Seixal (by 29%), Sesimbra (by 38%) and Alcochete (by 28%) (Fig. 7). In these municipalities urban sprawl is mainly distributed along the roads. Lower prices of real estate have attracted new residents.

The image of the city is becoming an important factor to economic prospects and city competitiveness. Since the 1990s the conservation of urban heritage and gentrification of attractive inner-city neighbourhoods has become a priority, also in Lisbon. But it has become cheaper for people to buy a house in the periphery because land and property prices in the city centre are increasing. On the other hand very low rents have not allowed landlords to restore properties. The result is an increasingly elderly population and a concentration of ethnic minority populations in central areas, which could create problems in the future.

A good example of a public intervention was the decision to organize the exhibition Expo'98 and then creating the Park of Nations, a high quality, residential and office area in the eastern part of Lisbon. The concept of a modern infrastructure promoted by the Expo'98 exhibition with national and international

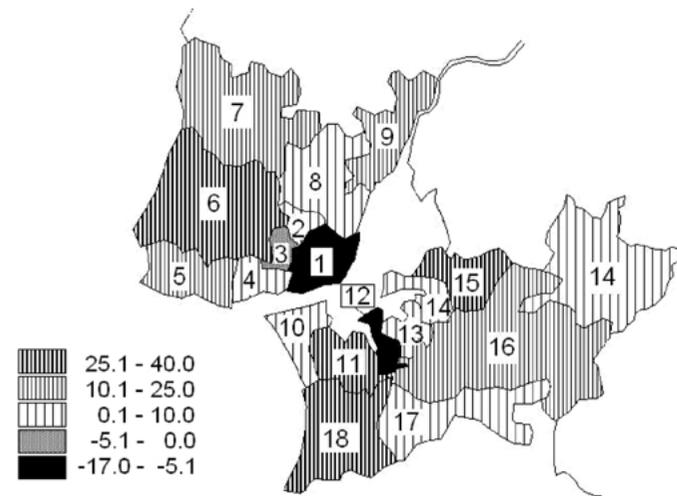


Fig. 7. The change of population (%) in the Lisbon Metropolitan Area in 1991–2001
 Explanation: 1 – Lisbon; 2 – Odivelas; 3 – Amadora; 4 – Oeiras; 5 – Cascais; 6 – Sintra; 7 – Mafra; 8 – Loures; 9 – V. Franca da Xira; 10 – Almada; 11 – Seixal; 12 – Barreiro; 13 – Moita; 14 – Montijo; 15 – Alcochete; 16 – Palmela; 17 – Setubal; 18 – Sesimbra

Source: www.aml.pt

prestige was seen as the driving force for the rehabilitation of a disused part of the port area and the closure of hazardous, polluted and environmentally dangerous industrial installations. The investments in the road system and the construction of Vasco da Gama Bridge linking the north and south banks of the Tagus River have created conditions for accelerating the urban processes in municipalities situated in the eastern part of the Setubal Peninsula.

CONCLUSION

The lack of statistical data for towns and cities (data are recorded by municipalities) makes it difficult to analyze all phenomena linked with urbanization.

The phenomenon of urban sprawl is even more difficult to trace. Only analysis of maps and aerial photographs in subsequent periods could determine 'sprawling' built-up areas, the areas potentially suitable for being converted into urban areas.

Non-spatial mobility connected with urban processes requires sociological examinations.

However, even incomplete data show that in Portugal the pattern of urbanization is similar to the phenomenon that originated in the USA.

Demographic trends occurring in Europe and in Portugal show that if negative population growth is not balanced by migration, economic and social development will be threatened in the future.

REFERENCES

- Alden, J. and Pires da Rosa, A.** 1996: Lisbon. Strategic Planning for a Capital City. In: *Cities*, Vol. 13, No. 1, INE, Pergamon Press, pp. 25–36.
- Atlas da Area Metropolitana de Lisboa, 2005: www.aml.pt.
- Atlas das Cidades de Portugal, 2004: Lisboa.
- Atlas de Portugal, 2008: www.igeo.pt/atlas.
- Carrilho, M. J. and Patricio, L.** 2003: A Situação Demográfica Recente em Portugal. In: *Revista de Estudos Demográficos*, No. 34, Lisboa: INE, pp.117–141.
- Carrilho, M. J. and Patricio, L.** 2007: A Situação Demográfica Recente em Portugal. In: *Revista de Estudos Demográficos*, No. 44, Lisboa: INE, pp. 35–80.
- Chin, N.** 2002: Unearthing the Roots of Urban Sprawl: A Critical Analysis of Form, Function and Methodology, London, CASA, www.casa.ucl.ac.uk/paper47.pdf.
- Domański, R.** 1997: *Przestrzenna transformacja gospodarki*, Warszawa: Wydawnictwo Naukowe PWN.
- Domański, R.** 2005: *Geografia ekonomiczna. Ujęcie dynamiczne*, Warszawa: Wydawnictwo Naukowe PWN.
- Ewing, R.** 1994: Causes, Characteristics, and Effects of Sprawl: A Literature Review. In: *Environmental and Urban Issues*, 21, 2, pp. 1–15.
- Gaspar, J.** 1980: *Urban Growth Trends in Portugal*, Lisboa: Centro de Estudos Geográficos.
- Hall, P. and Hay, D.**, 1980: *Growth Centres in European Urban System*, London: Heinemann.
- Heffner, K.** 2005: Małe miasta w rozwoju obszarów wiejskich. In: Heffner, K. editor, *Małe miasta a rozwój lokalny i regionalny*, Katowice: Akademia Ekonomiczna, pp.11–34.
- Instituto Nacional de Estatística, INE, www.ine.pt.
- Kasanko, M., Barredo, J.I., Lavalle, C., McCormick, N., Demicheli, L., Sagris, V. and Brezger, A.** 2006: Are European Cities Becoming Dispersed? A Comparative Analysis of 15 European Urban Areas. In: *Landscape and Urban Planning*, 77, pp. 111–130.
- Litwińska, E.** 2006: Przekształcenia sieci osadniczej Portugalii. In: Bagiński, E. editor, *Sieć osadnicza jako przedmiot badań*, Wrocław: Oficyna Wydawnicza Politechniki Wrocławskiej, pp. 185–202.

- Litwińska, E.** 2008: Zjawisko urban sprawl – jeden z wymiarów współczesnych procesów urbanizacji. In: Ślodeczyk, J. and Śmigielska, M. editors, *Współczesne kierunki i wymiary procesów urbanizacji*, Opole: Uniwersytet Opolski, pp. 37–48.
- Marques da Costa, N.** 2007: Mobilidade e Transportes em Áreas Urbanas. O caso da área metropolitana de Lisboa, Dissertação de Doutoramento em Geografia Humana, Lisboa: Universidade de Lisboa.
- Maślanka, J.** 2007: Demographic changes in Portugal at the turn of the 21st century. In: Szymańska, D. and Hołowiecka, B. editors, *Bulletin of Geography. Socio-economic Series*, No. 8, Toruń: Nicolaus Copernicus University Press, pp. 83–99.
- Parysek, J.J.** 2008: Urbanizacja i niektóre współczesne idee, koncepcje i modele planowania rozwoju miast. In: Ślodeczyk, J. and Śmigielska, M. editors, *Współczesne kierunki i wymiary procesów urbanizacji*, Opole: Uniwersytet Opolski, pp. 11–26.
- Piskozub, A.** 1976: Kierunek – rok dwutysięczny, Warszawa: Pax.
- Programa Nacional da Política de Ordenamento do Território (PNPOT) – Relatório, 2007: www.dgotdu.pt.
- Rodrigues, M.** 2009: A Forma Urbana em Portugal Continental: Aplicação de Índices Quantitativos na Caracterização Morfológica das Cidades, Dissertação de Doutoramento, Lisboa: Universidade de Lisboa.
- Soares, L.** 2002: Portugal 2001. A Realidade Incontornável da Dispersão. In: *Sociedade e Território*, 33, pp. 123–129.
- Szymańska, D.** 2007: Urbanizacja na świecie, Warszawa: Wydawnictwo Naukowe PWN.
- Szymańska, D.** 2009: Geografia osadnictwa, Warszawa: Wydawnictwo Naukowe PWN.
- Węclawowicz, G.** 2003: Geografia społeczna miast. Zróżnicowanie społeczno-przestrzenne, Warszawa: Wydawnictwo Naukowe PWN.

CORRESPONDENCE TO:

Elżbieta Litwińska
Wrocław University of Technology
Department of Architecture
Prusa 53/55, 50–317 Wrocław, Poland
phone: +48 713 206 240
[elzbieta.litwinska@pwr.wroc.pl]