

SUBURBANIZATION AND RE-URBANIZATION PROCESSES IN THE BARCELONA METROPOLITAN REGION: AN ANALYSIS OF RESIDENTIAL MOBILITY¹

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Abstract

This paper focuses on residential mobility within the Barcelona Metropolitan Region (BMR) based on intra-metropolitan flows from 2002 to 2015. By analysing time-series trends in this case study, we engage in the geographic debates about processes of suburbanization and re-urbanization. Our analysis is based on matrices of origin-destination of migration flows between the BMR municipalities, which are in turn grouped according to their degree of compactness or density (high-density municipalities) or dispersion (low-density municipalities). Using this classification, it is possible to distinguish between migrants moving from compact municipalities to dispersed municipalities and those moving in the opposite direction.

Our primary aim, therefore, is to contribute to the debate on the alternation or simultaneity of phases of de-concentration and concentration in urban development. Our secondary aim is to complement this analysis by characterizing each identified migration flow using microdata from the individual migrant register database, the *Estadística de Variaciones Residenciales*. In the latter case, the goal is to establish differential socio-demographic profiles (by sex, age and nationality) for the migrant flows involved in the geographical exchanges.

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Our results show that the economic crisis has not apparently affected the behaviour patterns of residential mobility, as the total number of people changing their residence diminished only very slightly. However, the analysis of the annual evolution of net migration rates according to the type of municipalities and their registered flows also shows that movements from compact to dispersed areas are diminishing, while movements from dispersed to compact are increasing.

Keywords: Barcelona Metropolitan Region; residential mobility; suburbanization; re-urbanization; urban sprawl; urban compactness.

1. Research Context: the Contribution of the Barcelona Metropolitan Region to the Analysis of the Dynamics of Urban Migration

Residential mobility has been one of the major factors contributing to the reconfiguration of Spain's metropolitan areas since the mid-1990s. The phenomenon of suburbanization has been extensively analysed in Spain, from both a more general perspective (Susino & Duque, 2013; García-Coll, 2009), as well as by means of specific case studies (Pujadas et al, 2014; Pozo & García-Palomares, 2009). Barcelona has not been an exception to this general phenomenon, and it has undergone an extensive process of suburbanization starting in the mid-1980s, a fact which has been widely documented by studies such as those carried out by Pujadas (2009) or Módenes (2002).

The Barcelona Metropolitan Region (or BMR) is the second largest metropolitan region in Spain, only after Madrid. It is made up of 164 municipalities, with a combined population of 5,028,258 inhabitants (2015). Even though the area is characterized by its polycentrism (Miralles & Tulla, 2012), the city of Barcelona—with a population of 1,527,190 people, amounting to 30 percent of the total population of the region—constitutes its main dynamizing centre.

The purpose of studying the migratory dynamics in the BMR in an international context is three-fold. Firstly, the BMR properly illustrates the transformation process undergone by urban areas whose growth had traditionally followed a pattern of compact urbanism but which have more recently incorporated a sprawl pattern of growth into their model of urban expansion (Font, 2004; Ferrer, 2003). Secondly, up to the present, the available studies point

to the existence of processes of population dispersion in the BMR (Pujadas, 2009; Domínguez, 2014), but also of re-urbanization (López-Gay, 2011 and 2016); a detailed analysis of the actual processes taking place in it should therefore contribute new insight into the debate about the presence, the alternation or the coexistence of several patterns of growth in present-day urban systems. Thirdly, the strong impact of the recent economic crisis in Spain, after a period of intense growth, makes this country a good candidate for analysing the relationship between economic cycles and changes in people's patterns of migration. Thus, the analysis of the trends present both during the cycle of economic expansion as well as in the period of crisis will show us the effects of the economic situation on the intensity of migrations, the residential preferences of those who move, as well as its disparate effects on different population groups. It is our aim in this presentation to deal with all these issues.

To do so, this paper examines the evolution of the annual intra-metropolitan migration exchanges between 2002 and 2015 in relation to a proposed typology of municipalities based on their net density. Our analyses will distinguish between a recent phase of economic growth (2002-2007) and one of crisis (2008-2015) in order to identify the transformations brought about by the change of business cycle. After a general analysis, our study pays special attention to those flows associated with suburbanization (from compact to dispersed) and those linked to re-urbanization (from dispersed to compact). This will contribute to the debate on whether there exist alternating phases of decentralization and concentration in urban development, as proposed by Klaassen et al (1981), and Chesire (1995), or whether the two cycles occur simultaneously, as suggested by Kabisch & Haase (2011), and Nel-lo (2007). In addition, the different profiles of the actors in each of the identified models of exchange are also analysed in order to unveil the differences in the composition of the intra-metropolitan flows, as well as the differences of each migratory pattern relative to the other. Finally, a reflection on the need for rethinking residential mobility is presented; this is along the lines of Coulter et al (2015), who regard immobility as a specific strategy, or the importance of taking into account the complete life course of people in order to gain an insight into present-day mobility and the necessity of gathering more information to improve our knowledge of it.

2. Data Sources and Methodology

2.1. A New Approach to the Analysis of Territory. From the Analysis of Municipalities to the Devising of Density-Based Typologies

Analyses at different levels, generally municipalities, either grouped in bands according to their distance from the city centre or grouped by the size of their populations, provide a partial explanation of the territorial processes taking place. But they also hamper the achievement of conclusions about the preferences of those people who make the decision to change their place of residence. This paper aims to provide an insight into the territorial dynamics of residential mobility that can be derived from the analysis of intra-metropolitan flows grouped by municipalities and classified according to their model of space occupation based on net density data. Such classification distributes the 164 municipalities in the BMR into 5 categories depending on their net density (Figure 1), which was calculated from their populations on 1 January, 2015, and the surface allocated to residential use (Table 1), and complemented, in the case of those municipalities with lower densities, with the proportion of land allocated to extensive, low-density residential areas of detached, single-family houses or semi-detached. Additionally, this categorization allows us to distinguish between compact municipalities (i.e., those with higher population densities) and dispersed ones (i.e., those with lower population densities). This classification has been used in previous works² (García-Coll et al, forthcoming) and here it will serve as a starting point to advance in the analysis of territorial dynamics in intra-metropolitan mobility in the Barcelona Metropolitan Region (BMR).

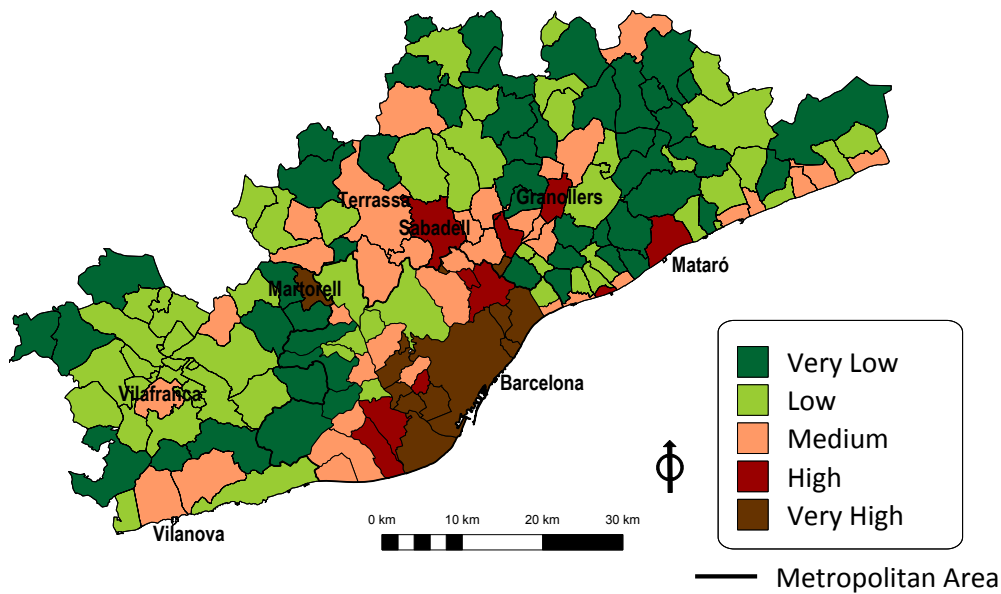
Table 1: Municipality Typology Based on Net Density (Inhab./Hectare of Residential Land)

Typology	Municipalities		Population	
	Number	%	Number	%
Very High	12	7.3	2,506,046	49.8
High	10	6.1	737,568	14.7
Medium	36	22.0	1,070,608	21.3
Low	57	34.8	447,419	8.9
Very Low	49	29.9	266,617	5.3
Total	164	100.0	5,028,258	100.0

Source: Compiled by the authors based on: INE, *Continuous Register, 2015*; and General Office of Country Planning and Urbanism (2014), *Urban Map of Catalonia*.

² A first draft of this typology was drawn up in the context of a previous research project, initiated in 2003, entitled *Mobility, family solidarity and citizenship in the Metropolitan Regions*. SEC2003-09565-CO2, directed by Anna Alabart and Isabel Pujadas.

Figure 1: Municipality Typology Based on Net Density (Inhab./Hectare of Residential Land)



Source: Compiled by the authors based on: INE, *Continuous Register, 2015*; and General Office of Country Planning and Urbanism (2014), *Urban Map of Catalonia*.

2.2. Sources for the Study of Residential Mobility in Spain

Two main data sources are used in this study: (i) the microdata in the *Residential Variation Statistics (Estadística de Variaciones Residenciales, or EVR)*, which provides annual data for individual movements between Spanish municipalities, and (ii) the Spanish Population Continuous Register (*Padrón continuo*), updated yearly. The EVR is highly valuable for the study of population mobility as it is updated every year; we thus currently have at our disposal a series of individual annual registers going back to 1988 and up to 2015. Such temporal detail makes it possible to compare both migratory flows by year and to distinguish between two broader periods: before the Global Economic Crisis (i.e., 2002-2007) and after it (2008-2015). The study of the latter will enable us to establish the impact of the economic crisis on the intensity and directionality of intra-metropolitan flows within the BMR.

The EVR also gives us detailed information about movements at the municipal level enabling us to both carry out a thorough territorial analysis, and to group the involved municipalities according to characteristics fitting the goals of our study. In our research, the municipal data provided by these sources is grouped according to the typology of patterns of space

occupation based on population density. Origin-destination matrices of migration flows are used to identify movements from compact municipalities—with higher densities—to dispersed ones—with lower population densities. By using these matrices, it is possible to analyse migration from compact to dispersed areas, dispersed to compact, compact to compact, and dispersed to dispersed, and test the changes in the preferences of people moving with regard to their chosen destinations. From this data, we expect to be able to determine whether economic crisis accentuates sprawl, hinders it or gives rise to re-urbanization.

The main limitation of the EVR, however, is that it provides us with very little information regarding the characteristics of the migrants. Specifically, it only tells us their sex, age, nationality, place of birth and origin and destination in their last change of residence, as well as the year the change of residence was registered. Despite the limitations implied by such sparse information, our analyses use the available data to characterise each of the identified migration flows using sex, age and nationality in order to establish different socio-demographic profiles for the migratory exchanges.

3. What is New in Residential Migration in the BMR? Metropolitan Trends Before and After the Financial Crisis

In previous studies conducted by this same team, four stages in the process of urban dispersion in the Barcelona Metropolitan Region were discerned (Alabart, 2007; Alabart & Vilà, 2007; Alabart, Gavalda & Vilà, 2010; Alabart & López, 2010), namely:

- First stage, 1975-1985. The onset of urban dispersion: hyperdensity in large cities with a typology of homes badly suited to the increasingly diversified needs of families; the economic crisis at the beginning of the 1980s left a significant proportion of youth out of the housing market.
- Second stage, 1986-1995. The development of urban dispersion: this meant the beginning of a stage of unprecedented territorial expansion in the metropolitan area; house prices experienced significant rises while, simultaneously, there was intensive building activity to promote residential areas located mainly in small or middle-sized municipalities. Families

directed their efforts towards home ownership and a new market emerged: detached houses in newly constructed suburban residential areas.

- Third stage, 1996-2008. Consolidation: The process that had begun in the previous stage was consolidated in a context of economic growth; the real estate business generated bullish expectations owing to the spectacular rise in the selling price of homes and these came to be seen as a form of investment. Families of means increased their property assets and reinforced their preference for living in suburban areas, further and further away from the central city. These strategies were further strengthened by easy access to bank loans, which in turn produced unprecedented levels of indebtedness.
- Fourth stage, from 2008 on. This period is identifiable from the second quarter of 2008 on, which is the time when the economic crisis manifests itself with greatest intensity. The occupational and financial crises produced a drop in the demand for real estate ownership and building activity came to a halt.

Table 2: Population and Annual Growth Rates. BMR Municipality Typology Based on Net Density

Typology	Population				r%		
	1991	2002	2008	2015	1991-2001	2002-2007	2008-2015
Very High	2,540,899	2,395,323	2,511,575	2,506,046	-0.53	0.79	-0.03
High	634,037	672,045	722,827	737,568	0.53	1.22	0.29
Medium	738,146	888,204	1,028,087	1,070,608	1.70	2.47	0.58
Low	234,852	337,546	418,273	447,419	3.35	3.64	0.97
Very Low	116,488	189,505	248,090	266,617	4.52	4.59	1.03
Total	4,264,422	4,482,623	4,928,852	5,028,258	0.45	1.59	0.29

Source: Compiled by the authors based on: INE, *Census*, 2011; and INE, *Continuous Register*, 2002, 2008 and 2015.

While the first three identified stages are well documented and have been the object of many studies, the last one—the one beginning with the onset of the economic crisis in 2008—has not received as much analysis. What impact has the economic crisis had on residential mobility? What has happened to the process of intense urban sprawl which had been in place until 2007? This first section will be devoted to answer these questions and to provide a broader context of our research.

The analysis of the evolution of intra-metropolitan mobility in the Barcelona Metropolitan Region shows that after a period of strong growth up to 2007, residential migration stabilized

at between 140,000 and 150,000 movements annually, with rates varying between 27 and 30‰ (Table 3, Figure 2).

Data reveal that, after the onset of the economic crisis, residential mobility in the BMR remained high: if we compare the time of maximum mobility (years 2005 and 2006, with rates of 33‰) with that of the minimum (years 2014 and 2015, with rates of 27‰), we see that mobility fell by only 6 points.

The first impression these data convey is one of apparent stability; patterns of behaviour regarding residential mobility do not seem to have been affected during this period. This is certainly surprising considering the importance residential mobility linked to improved housing and environment had acquired; mobility that, in a context of economic recession, was a clear candidate to be ruled out or postponed.

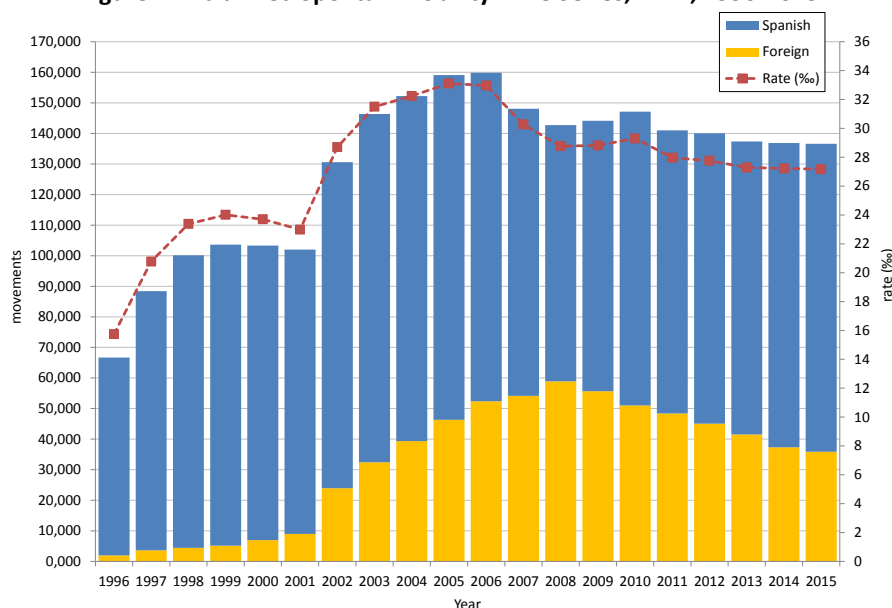
Table 3: Evolution of Intra-Metropolitan Migration - BMR³

Year	Total	Rate (‰)	% Foreign	Spanish	Foreign
1996	66,690	15.7	3.0	64,677	2,013
1997	88,397	20.8	4.2	84,711	3,686
1998	100,115	23.4	4.5	95,622	4,493
1999	103,595	24.0	5.0	98,436	5,159
2000	103,313	23.7	6.8	96,311	7,002
2001	101,974	23.0	8.8	92,953	9,021
2002	130,590	28.7	18.3	106,630	23,960
2003	146,330	31.5	22.2	113,869	32,461
2004	152,218	32.2	25.9	112,859	39,359
2005	159,080	33.1	29.1	112,751	46,329
2006	159,811	33.0	32.8	107,391	52,420
2007	148,079	30.3	36.6	93,902	54,177
2008	142,695	28.8	41.3	83,784	58,911
2009	144,135	28.8	38.6	88,439	55,696
2010	147,114	29.3	34.7	96,101	51,013
2011	140,964	28.0	34.3	92,578	48,386
2012	140,035	27.7	32.2	94,939	45,096
2013	137,368	27.3	30.3	95,809	41,559
2014	136,820	27.2	27.3	99,464	37,356
2015	136,601	27.2	26.3	100,733	35,868

Source: Compiled by the authors based on; INE, *Continuous Register*, 1996-2015; and INE, *EVR Microdata*, 1996-2015.

³The data of the *Padrón continuo* (or Continuous Population Register) for 1/1/2016 were not available at a municipal scale. To calculate the 2015 rates, data at 1/1/2015 were used instead of those of the population in the middle of the period.

Figure 2: Intra-Metropolitan Mobility Time Series, BMR, 1996-2015



Source: Compiled by the authors based on: INE, *Continuous Register*, 1996-2015; and INE, *EVR Microdata*, 1996-2015.

According to the data provided by the survey *Mobility, Family Solidarity and Citizenship in BMR*⁴, conducted in 2005 with people residing in the BMR who had moved to low-density municipalities (Table 3), 28% of those who move do it for reasons connected to the characteristics of the home they live in, while 25% move for reasons connected to their surroundings (search for a quieter neighbourhood or better natural environment, etc.). When household incomes decrease—as a result of the beginning of the economic crisis—, this kind of flows could be expected to weaken, leading to a possible decrease in mobility, especially after a period when it enjoyed such great prominence.

Table4: Reasons for Change of Residence. 2005 Survey.

Reason	%
Family	16.60 %
Labour	13.50 %
Environment	24.60 %
Housing	28.10 %
Health	4.60 %
Economic	2.40 %
Others	10.20 %
Total	100.00 %

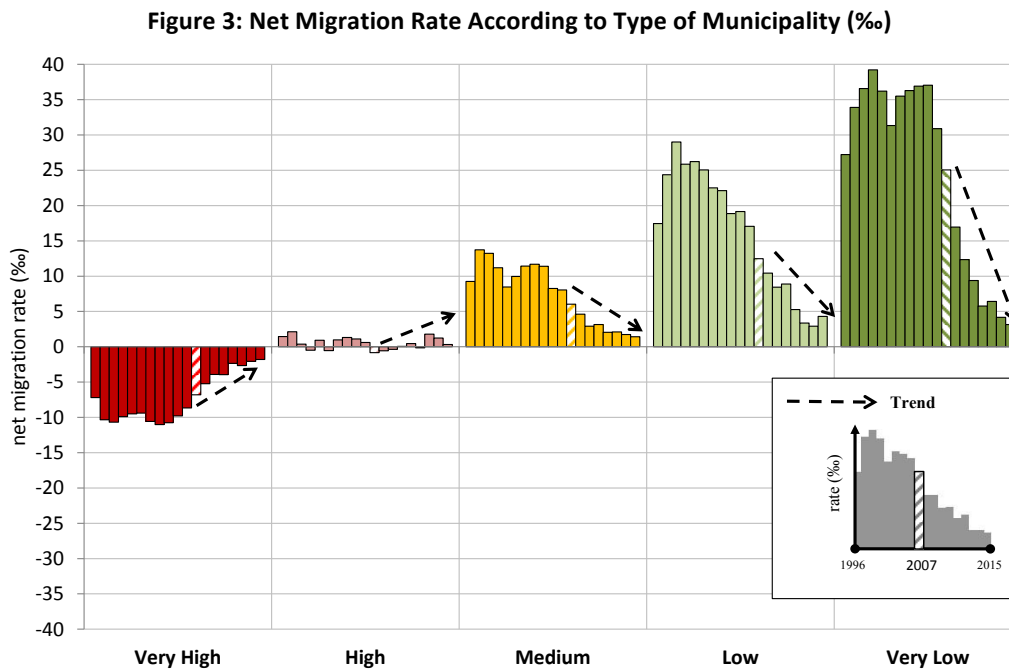
Source: *Mobility, Family Solidarity and Citizenship in BMR* survey, 2005.

⁴ The *Mobility, Family Solidarity and Citizenship in BMR* survey was carried out in a study preceding this research. This survey was conducted in 2005, in the context of a project with the same name, with 600 households of people who had moved to suburban residential areas.

In light of the overall data, this expectation was not confirmed: the number of people who changed their municipality of residence decreases slightly, but still remains at a high level, very close to the levels registered in previous years. The increasing presence of foreign population in the period between 2007 and 2011, accounting for over one third of all movements, should be highlighted. However, in the last three years under consideration, this proportion falls to slightly over a quarter of the total. Thus, the continuation of high rates of mobility in more recent years cannot be attributed to the increasing role played by foreigners, a category of population characterized by higher mobility rates than those of the native population (Recaño, 2016; Pumares et al., 2006).

Despite this, the analysis of the annual evolution (Figure 3) of net migration rates displays some important changes in trends depending on the type of municipality. In general, an inverse relation between municipal density and migratory intensity can be observed, as the highest net migration rates correspond to those municipalities with lower densities, and vice versa. This relation holds throughout the period under study and even after 2008, when the economic crisis manifests itself most severely. The conclusion is, therefore, that in the period under analysis, and for the entire population, it is the areas with the lowest density that prove to be the main net recipients of residential migration, and so we can speak of the existence of a phenomenon of dispersion like the one typical of periods of suburbanization (Champion, 2001; Richardson & Bae, 2004).

Another point that should be stressed when we analyse migration flows by types of municipalities is the presence of opposing trends. What we see here is a sharp fall in the net migration rates of very low, low and medium density municipalities, coupled with an increase in the rates of high and very high density ones. These opposing trends observed in compact and dispersed areas lead us to the conclusion that, although there has been a slight drop in total mobility, we are witnessing significant internal adjustments in the composition of the population changing municipality of residence at the intra-metropolitan level. In the recessive economic context of past years, new residential preferences are emerging.

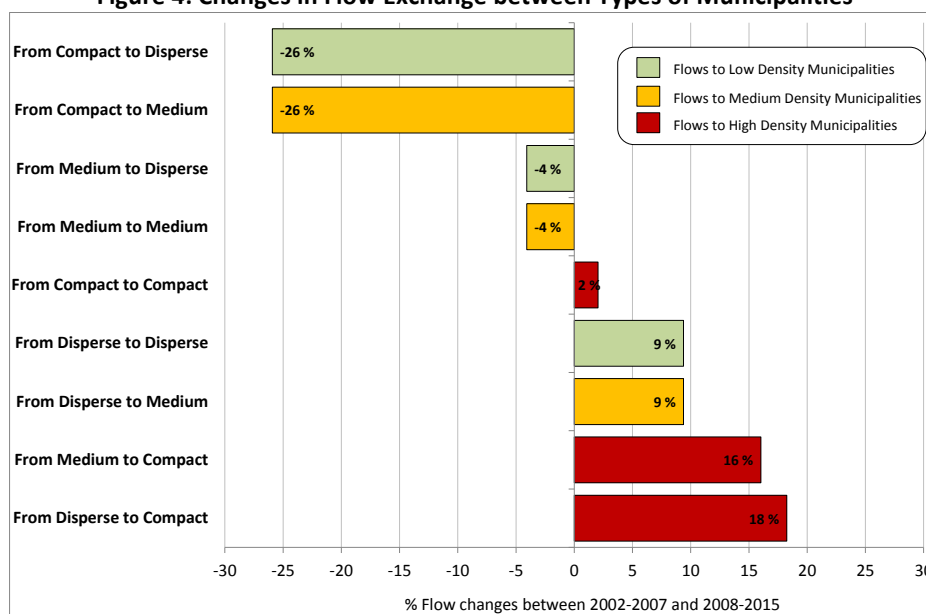


Source: Compiled by the authors based on: INE, *Continuous Register*, 1996-2015; and INE, *EVR Microdata*, 1996-2015.

A comparison of the matrices of origin-destination between compact, dispersed and medium areas (Figure 4) gives us some clues as regards these adjustments. First of all, both during the 2002-2007 and the 2008-2015 periods, the fastest growing migration flows are those in the direction of compact areas, and this is especially true for the flows originating in dispersed municipalities. Compact areas are increasing their number of arrivals from all the other categories, which would be a sign of re-urbanization. However, we must remember here that the migratory balance of compact areas is still negative at all times and, as we shall see later, for all age groups.

It can also be observed that the flows which are falling fastest are those involving a move from compact to dispersed areas. This reduction of emigration only confirms the decline of the “ejection” effect of compact areas as a consequence of such factors as the fall of dwelling prices, an improved valuation of the traits of compact urbanism (better public transportation services, proximity to all sorts of service, etc.), or because immobility becomes a residential strategy while waiting for a better economic situation (Coulter et al, 2015), especially for those families seeking a “better” home and not moving for work, health or financial reasons.

Figure 4: Changes in Flow Exchange between Types of Municipalities



Source: Compiled by the authors based on: INE, *Continuous Register*, 1996-2015; and INE, *EVR Microdata*, 1996-2015.

Parallel to this, the decrease in the positive migratory balance of dispersed areas stems from a sharp fall in immigration and, above all, from the decline of arrivals coming from compact areas. The additional cost of living in dispersed areas (Henry, 2007) and the longer distance of services (García-Coll, 2009) are factors that could be playing a significant role in these behaviours. On the other hand, the fact that the increase in emigration from dispersed areas is only slight could be related to the optimal satisfaction of the residents with their homes, but also to the impossibility of undertaking a new migration due to the difficulty of selling the present dwelling, a precondition to affording a new move. Here, we should recall the strong prominence of ownership as a form of tenure in Spain (Leal et al, 2004; Leal, 2004), and in the BMR as well. Thus, according to the mentioned 2005 Survey, 92% of all the people interviewed were home owners. Likewise, it informs us of another significant aspect: the proportion of households having recourse to mortgages in order to buy their homes. According to 2005 Survey, 48 % of households were still repaying loans for the acquisition of their homes.

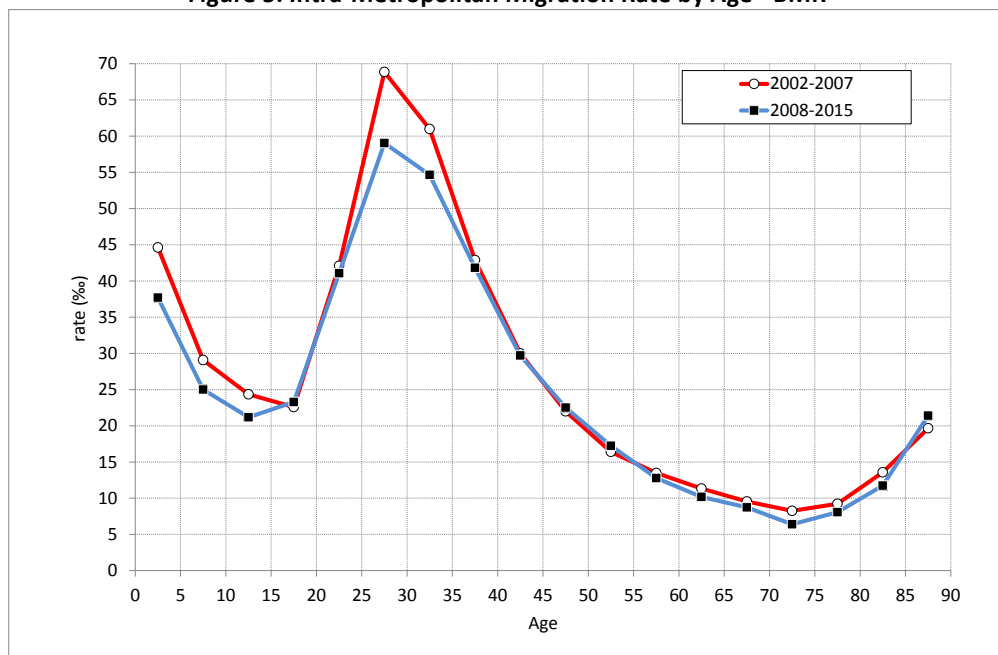
All these statements about the attraction/expulsion effects of one type of area or the other must be viewed through the filter of the socio-demographic traits of households and, in future research, they should be completed with qualitative studies, carrying out a more in-depth analysis of the motivations that we have just pointed out as explicative hypotheses.

4. Who is Going Where? Demographic Differences in the Composition of Flows

The decision to migrate or not, as well as the different factors involved in the selection of the destination when people decide to change their place of residence, are all influenced by the context in which such decision is made (Smith et al, 2015). Among others, aspects such as the economic situation (both micro and macro), the family context or people's residential expectations, all have an influence on residential mobility.

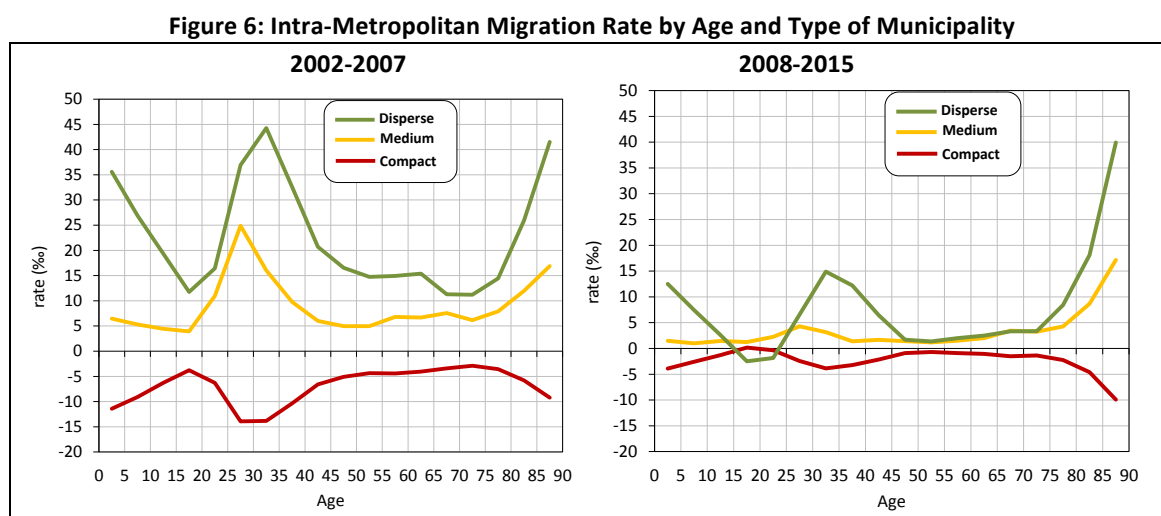
A closer examination of the EVR records (Figure 5) confirms that the profile of intra-metropolitan migrants is marked by a prominence of young adults (25-39 years old) with children (0-9 years old), which is the classical profile of residential mobility (Susino and Duque, 2013; Clarke et al, 2015). Unlike in other places, in the BMR an increasing mobility of elderly people—in particular, people over 75—can be observed. Age pattern remains stable throughout both of the periods we are analysing here, and only a slight decrease in the mobility of the 25-29 and 30-34 age groups can be appreciated, which also entails a drop in children's migration (0-14 years old), who normally accompany the young adult population. Once again, the first impression conveyed by our data is that of a continuation of the migration patterns before and after the economic crisis.

Figure 5: Intra-Metropolitan Migration Rate by Age - BMR



Source: Compiled by the authors based on: INE, *Continuous Register*, 1996-2015; and INE, *EVR Microdata*, 1996-2015.

However, the most interesting contrasts between the two periods considered are only revealed when a territorial perspective is added (Figure 6), as it is the dispersed municipalities that come out as the preferred destinations of intra-metropolitan migrants, in contrast with the negative rates of compact areas for all age groups. Together with the migration of families of young adults with children, intra-metropolitan mobility has another group of protagonists: that of people over 75 years old. For this age group, the values of the rates are accentuated: positive in the case of the dispersed municipalities, and negative for compact municipalities.



Source: Compiled by the authors based on: INE, *Continuous Register*, 1996-2015; and INE, *EVR Microdata*, 1996-2015.

A comparative analysis of the two periods shows an almost generalized decrease in net migration at all, except the oldest ages, which display the same strength in the first period as in the second one. The graph for the period 2008-2015 reveals the continuation of the suburbanization pattern for young families with young children, although at a much slower pace. In contrast, we see this same residential process almost vanish in the case of people between the ages of 40 and 65, whose rates are visibly lower and nearing zero. Not even at ages close to retirement is there a sizable rise in mobility, contrary to what was perceived in previous times. Finally, it is remarkable that, for the first time, we find negative rates in the mobility patterns of dispersed municipalities. These show up in the 15-24 age group during the 2008-2015 period. This conclusion allows us to recognize the importance of the stage of life and family characteristics in assessing the benefits of living in dispersed areas (Champion, 2009; García-Coll, 2014). Thus, the low rates displayed by the 45-64 age group, i.e., people in later stages of their active life or in the “empty-nest” phase, may call into question the

attraction of dispersed residential areas—quietness, larger dwellings, home gardens, etc.—, which would in turn explain the low rates displayed. The same can be said of adolescents and youths, for whom the long distance to educational centres, entertainment venues or workplaces, the additional transportation expenses involved in living in dispersed areas—or their dependence on their parents for transportation, in the case of the younger group—might all act as deterrents to this kind of life.

Lastly, the high migration rate of people 75 years old and over is also outstanding, and could be interpreted as the result of a *dragging* effect by which elderly people seek proximity to their children who had migrated earlier, either in order to cohabit with them or to live in their own homes but near them (Smith et al, 2015). Another possibility is that they move into a retirement home, since some low-density municipalities have elderly homes servicing the entire metropolitan region (Pujadas et al, 2016).

In the case of compact municipalities, an analysis by age reveals the continuation of negative rates for all age groups in both of the periods considered. However, the most recent period displays a decrease in rates, with these getting near zero for all ages except for age groups 30-34 and over 75. All in all, this new situation could be explained by the drop in the number of departures—whether due to the virtues of compact residential areas or because of the impossibility of moving to a dispersed area—and the increase in the flows of arrivals.

Furthermore, when the basic demographic characteristics of the migrants involved in the residential exchanges between different types of municipality are compared, significant differences are observed if we take into account variables such as the proportion of foreign migrants or the percentages of young adults and people over 65 (Table 5).

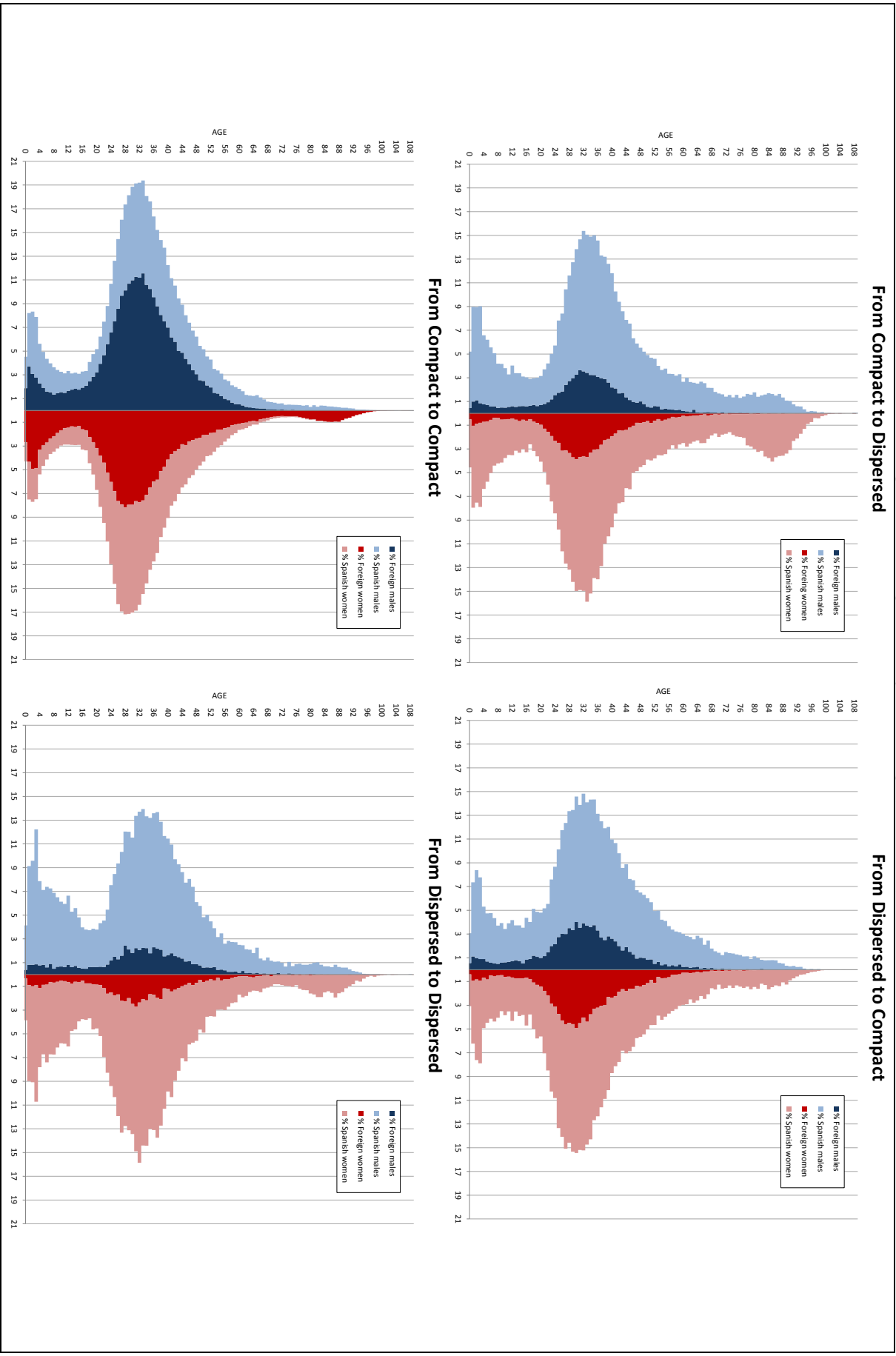
Table 5: Basic Indicators by Type of Municipality and Period

Indicator	2002-2007				2008-2015			
	From Compact to Disperse	From Disperse to Compact	From Compact to Compact	From Disperse to Disperse	From Compact to Disperse	From Disperse to Compact	From Compact to Compact	From Disperse to Disperse
Total movements	124.014	53.616	310.791	37.976	116.273	84.534	422.842	53.649
% total movements	13,8	6,0	34,7	4,2	10,3	7,5	37,6	4,8
Sex ratio	101	98	112	101	95	98	108	98
Average age	35,1	34,0	31,7	31,6	37,6	35,2	32,7	33,0
% < 15 years old	16,6	14,2	12,9	19,9	15,7	14,2	13,7	20,9
% > 64 years old	9,2	7,0	3,9	5,2	12,5	7,4	3,7	6,4
% 20-39 years old	48,2	52,0	61,8	50,1	44,6	47,6	55,9	44,2
% foreign population	10,5	19,4	46,7	12,1	16,9	20,7	50,6	13,2

Source: Compiled by the authors based on: INE, *Continuous Register*, 1996-2015; and INE, *EVR Microdata*, 1996-2015.

The pyramids showing the structure of the different migratory flows by sex, age and nationality (Figure 7) are the final graphs that will help us recognize the differentiating traits in the composition of the various currents. In the case of movements whose origin and destination places are both in compact residential areas, we see the important role played by foreigners, who represent more than half of the migrants; their concentration in the group of males aged 20 to 39 produces strongly masculine flows with a significant presence of this age group. As for the movements from compact to dispersed areas, there is a remarkable presence of elderly people (12 % of the total), especially women over 75.

Figure 7: Exchange Flows by Sex and Age (2008-2015)



Source: Compiled by the authors based on INE, *EVR Microdata*, 2008-2015.

5. Conclusions

In recent decades, the migratory dynamics in the BMR has been characterized by a vigorous process of suburbanization and urban sprawl. This phenomenon set in with great intensity, as it did in other Spanish cities, signifying a break with the traditional pattern of urban growth based on compact urbanism.

During the expansion phase of the business cycle, urban sprawl reached its peak and it affected broad social groups and wide territorial expanses. During the phase of crisis, suburbanization trends held even in the most severe phases, although they lost their previous intensity. Suburban sprawls are still an attractive residential option for part of the BMR residents, but their appeal is now more limited and only families with young children contribute significantly to their net growth. For all other ages, their appeal is now weaker, except for elderly people, whose behaviour should be considered in connection to family, as they move closer to their children's place of residence. Closeness between parents and children facilitates intergenerational support, first by parents to children (and by grandparents to grandchildren) and, later on, by children to parents. This behaviour stands out as a typical aspect of the Spanish migratory system—at least in urban areas which went through intense processes of dispersion in the past—, and is added to the well-known delay in the mobility age of young adults. Theoretical assumptions stipulate that the advantages of living in compact areas are considerations highly valued by the elderly (Champion, 2009). Consequently, smaller homes with lower maintenance expenses, closeness to all different types of services and facilities, better public transportation and less reliance on a private vehicle are all elements of compact residential areas which are often pointed out as advantageous to elderly people. Nevertheless, we should remember here the importance of family relationships regarding residential mobility in Spain—as shown by Clarke et al (2015)—owing to the limited role of the welfare system in the provision of care and services for the children and the elderly and, consequently, the prominent role of the families in such provision.

On the other hand, the increase in the migration flows to compact municipalities—even in those flows originating in dispersed areas—points to the existence of a movement back to the denser areas. Disappointment with life in dispersed areas or changes that modify the value attributed to this type of residence (like those connected to household income; to a person's stage in life; to her or his residential needs in relation to age or family composition, etc.) may act as enhancers of this type of

flow. To these, we must add a significant process of resettlement between different compact municipalities, as well as a considerable decline of the “ejection” effect of compact areas which could be appreciated in other times. Contrary to what has happened to certain cities in the Anglo-Saxon regions, the cities in the BMR are not losing their residential use and they are maintaining their social fabric alive and well, which allows them to continue as attractive places to live. With the expansion of the suburban model, cities are also trying to enhance their appeal as places of residence—an appeal based on completely different values from those of dispersed areas—and are improving the quality of life that they offer. The bursting of the real estate bubble brought certain relief from the previous upward pressures on house prices, a factor which had spurred the expulsion of many from cities. This new state of affairs comes to support the hypothesis that a process of re-urbanization is under way, even though, for the moment, we must remember that, even in the most recent stage, the migratory balance of denser municipalities is still negative for all ages. Given that we are presently in a transitional phase, the future is now more unpredictable than ever, and there is both the possibility that the present trends will grow stronger or that, on the contrary, the economic recovery after the crisis will reinvigorate the flows responsible for suburbanization. One third possibility is that both trends coexist in the future, each of them affecting not only specific territories, but also specific socio-demographic groups, in the way of the behaviours that can now be observed.

The economic crisis has reduced mobility only slightly and has hardly transformed its age composition so that, at first sight, it may erroneously seem that it has not altered the population’s residential patterns. However, after examining the information which is available so far, we realize that the crisis has contributed to modifying the directionality and the profile of the people moving. Currently, we are immersed in a transitional phase: in net numbers, there is a process of dispersal going on; in terms of trends, the flows towards low-density areas are diminishing and the ones towards compact areas are increasing. We lack information concerning the social composition of these flows and about the characteristics of the moving families, but our working hypothesis makes us think that new reasons for migration are gathering strength; one of them could be the evolution of house prices, more than the desire to move to a better home. It has to be investigated whether—and to what degree—the economic crisis has been the trigger for such changes in attitude, and whether it has been the only factor responsible for it. Our present analysis has revealed that some of the new trends that have been identified were already in operation before the onset of the crisis. Thus, it has already been suggested that changes in people’s life courses, the reorganization of the housing market and the evolution of both compact and dispersed municipalities concerning urban

planning and concerning the role played by the different urban agents are all factors to be taken into account, above and beyond the economic situation.

We expect that future research—with the help of a new survey which is currently in preparation—will make it possible to answer these and other similar questions which are still unsolved.

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