Recent Demographic Change and Housing in Spain: Towards a New Housing System?

Cambio demográfico reciente y vivienda en España: ¿hacia un nuevo sistema residencial?

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Key words

Comparative Analysis
• Cohort Analysis
• Demographic Change
• Housing Costs
• Youth
• Residential Patterns
• Housing

Abstract

This article addresses the relationship between population and housing in Spain by using an interpretative approach based on demographic techniques. The main aims are to ascertain the rapid recent development in the Spanish housing system, and to explore how it will fare in the near future. To do so, some arguments are presented for the need to analyse housing systems from a comparative perspective. The situation in Spain in the international context is analysed, and the dynamics and change in the Spanish housing system are dealt with empirically. The empirical analysis highlights that it is important to take into account temporal dimensions, particularly age. It is confirmed that a new stage of extremely low demand for main residences is currently emerging, which may be aggravated by the current economic crisis and its effects on family formation. In addition, rental is identified as an option for enabling young people to have access to housing, and thus home ownership is questioned as the prevailing feature of the Spanish housing system in the future.

Palabras clave

Análisis comparado
• Análisis de cohortes
• Cambio demográfico
• Costes de la vivienda
• Joven
• Pautas residenciales
• Vivienda

Resumen

Este artículo aborda la relación entre población y vivienda en el marco interpretativo propio de la demografía. El objetivo principal es confirmar la rápida evolución reciente del sistema residencial español, y explorar cómo lo hará en el futuro próximo. Para ello, se argumenta la necesidad de analizar los sistemas residenciales en perspectiva dinámica, se analiza la situación de España en el contexto internacional y se aborda empíricamente la dinámica y el cambio del sistema residencial español. En el análisis empírico, se resalta la importancia de tener en cuenta las dimensiones temporales, sobre todo la edad. Se confirma un nuevo periodo de necesidad prácticamente nula de primera vivienda, que puede ser agravada por la crisis actual y sus efectos en la formación familiar. Además, se identifica un importante repunte del alquiler como opción de acceso a la vivienda entre los jóvenes, cuestionando la propiedad como el elemento dominante del sistema residencial español futuro.

Citation

INTRODUCTION

Spain is undergoing a profound economic crisis resulting from various bubbles bursting: the general one which affects the global economic system, the financial bubble, and the property or housing bubble, the latter being more intense in Spain than in the surrounding countries (Campos Echeverría, 2008; Gaja, 2008; Arellano, Bentolila, 2009; García Montalvo, 2009; Rodríguez López, 2009; Naredo, 2010; Romero, 2010; among others). In addition to the above, there is another specifically Spanish bubble, a “demographic” bubble (Fernández Cordón, 2011). These bubbles are related among themselves. Whilst there is a well-known interaction between the financial and the property bubbles, the relationship between housing cycles and demographic cycles is less known (Myers, Ryu, 2008; Myers, Pitkin, 2009).

This paper tackles the relationship between housing and population within an interpretative approach based on demographic techniques. It is intended to provide conceptual elements which justify the empirical analysis of the recent and future dynamics of the so-called Spanish housing system. On this basis, a review of the recent development of the Spanish housing system is undertaken by the use of various pieces of empirical data. Section 4 discusses the strong impact that the structural population change has, and will have, on household formation and housing needs. In section 5 it is argued that this transformation of the demographic base is coupled with changes in family formation and tenure options, thus completing the picture of dynamic factors. In the conclusion, a key question is raised: change or transformation? The answer will depend on the time horizon adopted.

HOUSING SYSTEM: A DYNAMIC CONCEPT

The concept of a housing system places the interrelation between housing and population in a broad explanatory framework. A housing system is understood to be a set of mutual relationships between the demographic, social, political and territorial contexts, and housing markets and structures (Boelhouwer and Heijden, 1993). The housing system includes housing units, actors and institutions that explain the production, consumption and regulation of housing as a phenomenon (Bourne, 1981)3. In this equation, demography helps to interpret the key role of the po-

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1 This paper forms part of the R & D project entitled “The restructuring of the housing-population relationship in a crisis context: A European comparative study” (La reconfiguración de la relación población-vivienda en un contexto de crisis: Un estudio comparativo europeo), ref. CSO2010-17133, funded by the Government of Spain. The authors are extremely grateful for the comments and suggestions of the two anonymous reviewers.

2 This section and the following section are a review and update of the conceptual introduction of a report prepared by the authors for Fundación Abertis (López Colás, Módenes, García García, 2011).

3 For a recent review of this concept and its applications, see Heijden (2013). For Spain, an application of this terminology can be found in Leal (2004) and Cortés and Navarrete (2009).
pulation in the patterns of housing consumption, and to understand how this influences the remaining elements of the system. At a national or supra-regional scale, demographic change provides a solid explanation for many residential processes, and therefore must be a key aspect in the analysis of housing systems (Myers, 1990, p. 306).

The literature on housing systems explores different aspects of housing and dwelling: a) housing tenure and means of access; b) uses of the housing stock; c) the relationship between access to housing and the welfare system provision; and d) the prevailing systems of housing production (Allen et al, 2004). Hoekstra (2010), in connection with the welfare regimes identified by Esping-Andersen (1990, 1999), referred to four aspects: the type of housing financing or subsidisation; price setting and price regulation; organisation of new production; and allocation of the housing stock.

In this context, the relationships between population and housing are not static, either on an individual or an aggregate scale (Myers, 1990; Mulder, 2006; Mulder, Lauster, 2010; Malpass, 2011). Many housing analyses study slices of time, as if they were looking at a still photograph, particularly when making comparisons on an international scale. To avoid this problem, the analysis of dynamics and change are at the core of the present work.

Particularly interesting are the dynamic incremental processes that lead to a change (transformation) of the main parameters of the system, which in the long term can lead to a change (replacement) of the system without dramatic convulsions (Malpass, 2011), although they may include some cutoff points to break away from the past. Two dynamic levels can be identified: a) the effect of the demographic structure change; and b) the change in housing behaviour. The use of age as a tool for analysis means that those incremental changes can be identified by calculating specific indicators that are compared over time (Myers, 1990), including the cohort perspective (Myers, 1982, 1999).

Population structures, level and type of housing needs

Housing needs are influenced by the size of the population, and above all, by its structure. When the population is young or largely made up of immigrants, there is obviously a relatively high flow of new homes, and this feeds a high housing demand. Many of these housing units must be built either because there are few becoming available as a result of household mortality (Leal, Cortés, 1995; Leal, 2010) or for other reasons. In mature populations with a tendency to ageing, the numbers of all adult groups become gradually more balanced. The flow of new households tends to be offset by the homes that disappear.

The influence of the demographic structure, and not only of the population size, makes sense because the individual housing demand changes with age, both in qualitative and in quantitative terms. Once this individual relationship has been recognised, on an aggregate level, housing needs are de-

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4 Esping-Andersen’s typological framework has been taken here, as in other studies, as an essential starting point to carry out any comparative analysis of social and political structures of western countries. However, it does not perfectly match the comparison of housing systems, as well noted by Kemeny (2001) and also shown by Azevedo (2012) for the case of Spain and southern European countries.

5 In this comparative perspective, there are three ways of conceive change in housing systems, according to Kemeny and Lowe (1998): 1) Each system evolves separately. 2) General or universal studies follow a convergence analysis, according to which all housing systems are similar and respond to the same mechanisms that tend to converge, following a single trajectory of change. 3) Divergence approaches attempt to identify homogeneous patterns of behaviour in different regional areas that evolve similarly over time. The third perspective has been adopted in this paper.
ependent upon the age distribution of the population due to 1) the general ageing of the population and 2) the disparities in the size of the generations. As the ageing of the population pyramid increases, the overall balance between new young households and the dissolution of elderly people’s households reaches its equilibrium, and this reduces the quantitative need to add new housing units. In addition, fertility cycles give rise to a succession of large and small cohorts that obviously affect the total aggregated need, especially of young households.

It has been repeatedly shown that there is an inverse relationship between ageing and the need for new housing. The widely quoted and criticised work by Mankiw and Weil (1989) addressed the relationship with housing prices. Ermisch (1996) and Lindh and Malmberg (2008) proved, using econometric models, that there is a close relationship between the ageing process and the reduction in demand for the construction of new housing. At the root of these explanations, and of the empirical approaches using demographic projection methods, lies the fact that ageing reduces the need for new housing because there is an increasing supply to be drawn from the dwellings made available by the dissolution of more and more elderly people’s households; however, this relationship is qualified by the increase in their housing autonomy.

Additionally, the differences in the size of the generations, caused by the oscillations of the past fertility levels, give rise to cycles of housing demand. This results from the considerable variation in the size of the population within an age range that is key to family formation and housing demand. The influence of demographic swings on economic swings is well known (Abramovitz, 1961; Easterlin, 1968, 1987). As to housing, Campbell (1963, 1966) studied, for the United States, the coincidence between demographic swings and housing construction cycles, and showed that the irregularities of the demographic structure had an impact on aggregated housing needs. More recently, Myers and Ryu (2008) analysed how the baby boom generations in North America have shaped the housing market of the United States.

### Change in housing behaviour and interactions with demographic structures

The classic work edited by Myers (1990), *Housing Demography*, showed the role of the age variable in the interaction between population and housing behaviour. The progression of the rate—or rather, of the proportion—of homeowners in a given population is an example of a temporal change in housing features. In order to integrate the temporal change in indicators with the heterogeneous behaviour by age, it is useful to resort to the analysis of behaviour variations amongst cohorts (Chevan, 1989; Myers, 1982). In general, the younger generations within an age range typically associated with access to housing are the main actors in the new behaviour, which becomes generalised as those generations grow older. The way in which housing behaviour systematically changed in different generations over time was first analysed in France in different locations and across the social spectrum (Bonvalet, Frisbourg, 1990; Courgeau, Lelièvre, 1992; Lelièvre, Bonvalet, 1994; Bonvalet, 1998). In Japan, the new generations drive the different housing paths (Hirayama, 2012). The global change can be anticipated by observing the dynamics of the young generations.

What makes the demographic approach interesting is the interaction between differing behaviours by age and the demographic structure on which they are based. According to Hughes (1996), when individual behaviour is stable, the development of tenure indicators is accounted for by the change in population structure. Chevan (1989) held that the increase in overall ownership rates in the
United States since 1940 was due to the combination of compositional changes and behavioural changes. Compositional changes are those caused by any factor which induces a heterogeneous tenure distribution (age, sex, social status, nationality…). If the composition of the population changes, so do aggregate tenure indicators, without the propensities of each social and demographic segment needing to change. Chambers et al (2009) estimated that demographic structure factors (ageing, change of family structure, immigration) account for almost one third of the new homeowners in the United States between 1994 and 2005. Yu and Myers (2010) incorporated the dynamics of household formation into the analysis of change in aggregate tenure indicators. In effect, the ownership rate (understood as the percentage of owner households) may increase or may be high not only because a preference for ownership is favoured in existing households, but also because more fragile households which perhaps would be available for rent either disappear from the scene or cannot be formed. By using multiple decomposition, (Das Gupta, 1978, 1993) compositional and behavioural factors can be isolated in the temporal differences in rates. A very interesting example can be found in Mudd et al (2001), who conducted research into the decrease of homeowner proportions in Australia.

Doling (2012) provides the most sophisticated argument. The expansion of home ownership in recent decades (in the European Union) is related to its role as a “palliator” of some of the negative effects of ageing. The housing equity accrued by older people could justify a lower level of concern by governments about expense on pensions or other social issues. Therefore, ageing and public promotion of ownership evolve in parallel.

The Spanish residential system within the Southern European system: common features, heterogeneity and change

Firstly, a description will be provided of the main features of the housing system in southern European countries, of which the Spanish housing system forms part. In our view, an excessively static view of these systems is given at times, and this must be questioned. Some heterogeneous elements found in this regional system will be shown below, many of which result from dynamics of temporal change. Finally, an attempt will be made to identify these changes for the specific case of Spain.

Spain and the Southern European housing system: traditional traits

It seems clear that the Spanish case needs to be placed within the Mediterranean (Hoekstra, 2010), Southern European (Castles, Ferrera, 1996; Allen et al, 2004; Leal, 2004; Allen, 2006) and family-based (Poggio, 2012) housing systems. It shares with these countries (Portugal, Italy, Greece, Cyprus, Malta…) certain housing traits that make up a common system. This housing system is based on a more general welfare system that is defined by three structural elements: the high commodification of basic welfare-related

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6 This has raised a strong debate for years (McDonald, 2003; McDonald, Baxter, 2004; Mudd et al, 2001).
goods and services, a relatively high level of social stratification, which is based on social or occupational status, and a provision system in which the family holds a dominant position (Allen et al., 2004; Hoekstra, 2005). The first element is shared with the liberal regime, whereas the last two, although with significant differences, fall under the corporatist one. The system that is furthest from the Southern European is the social democratic one. But for Hoekstra (2005), from the housing point of view, the Southern European or Mediterranean system is well defined.

Despite having major social stratification, the Mediterranean welfare system is surprisingly homogeneous in terms of its wide spread of housing ownership, which covers all social strata (Cabre, Módenes, 2004; Poggio, 2012). This cannot be understood without taking into account the central role of the close family network. It is therefore very important to study the changes in family relationships in order to understand the dynamics of the housing system (Poggio, 2012). But it cannot be forgotten that the system hinders the formation of young families, and therefore favours those households that already have the means to access property (as may be interpreted from Yu and Myers, 2010).

 Owned housing is equity with complex values that should be transmitted within the family, and therefore inter-generational transfer has greater importance in these countries (Poggio, 2012). Likewise, it is common to have several generations sharing the same household (Mandic, 2012) and unequal gender roles (Trifiletti, 1999). The relatively low use of mortgage financing (Mulder, Billari, 2010; Mandic, 2012) is related to the existence of other savings and collective financing channels from within the family.

In this flexible logic which consists of multiple family strategies, urban planning regulations are an obstacle (Allen et al., 2004).

Other ways of promotion and control, such as—legal or illegal—self-building, fit better with the central position of family support, to which can be added a shortage of professional structures related to housing provision (Poggio, 2012). In Mediterranean countries there is no specific public housing policy addressed to individuals. Rather, there are economic policies in place that support construction, especially by promoting ownership (Pareja-Eastaway, San Martin, 2002).

Ownership of flats prevails as a housing type, and is almost exclusive in these countries (Hoekstra, 2005), although in recent decades low density suburban development has gained importance (Indovina et al., 1990; Muñoz Ramírez, 2006; García Palomares, Gutiérrez Puebla, 2007; Pujadas, 2009). The high proportion of homeowners could be interpreted instead as a lack of housing available in other tenure forms, such as rental, a provision system that is not sufficiently supported or promoted by the State (in the form of state-funded rental housing). The absence of effective policies to promote rental housing compromises access to housing on the part of the most vulnerable social strata and, in general, household formation and child-bearing (Jurado, 2003, 2006; Mulder, Billari, 2010). In the case of Spain, for decades the State has taken the political option of promoting ownership through fiscal, economic and financial policies (tax relief for the purchase of the main residence, promotion of the construction of owned public promoted housing, or credit facilities, amongst others) (Jurado, 2006; Pareja-Eastaway, Sánchez-Martínez, 2010).

In southern European countries ownership covers almost the entire spectrum of housing alternatives and quality standards that in other countries are encompassed by the various forms of tenure (Matzenetter, Mundt, 2010). Another characteristic feature is the high proportion of second homes (Módenes, López-Colás, 2007), without housing consumption being much higher, since many
of these housing units are used by northern Europe households (Pareja-Eastaway, San Martin, 2002). All of these elements are consistent with very static inner workings and low residential mobility (Módenes, 1998). In effect, systems based on ownership tend to have a low level of residential mobility, which also applies at an individual level. This means that the housing characteristics of households in these systems can be partly accounted for by the decisions made and the obstacles encountered in households at younger stages.

Upward housing mobility has traditionally been less important than in other systems. This changed, perhaps circumstantially, during the housing boom and with the last wave of immigration. Practically half of the flow of new households had its origin in the arrival of immigrants (see below Figure 4), who did not access specific new housing but only the existing housing stock, thus fuelling vacancy chains in which half of the links were formed by upward movements.

For Castles and Ferrera (1996), the Southern European housing system draws its personality from an anomaly within the hypothesis of the “big trade-off”. This hypothesis (initially proposed by Kemeny, 1980) proposed that, on an aggregate level, there is a trade-off between public spending (pensions, for example) and the extent of home ownership in a given population. Private spending on property and public spending on old-age pensions represent alternative mechanisms and are, up to a point, mutually exclusive of long-term savings. However, in Southern Europe it would be difficult to mobilise the monetary value of housing at advanced ages, because the financial sector is not developed and there are no appropriate residential alternatives, and so the State should spend more on pensions. According to Stamsø (2010), this pension expenditure is required in order to transfer resources to inter-generational family networks that provide support to access housing, to compensate for the shortage identified in the banking system, and to implement active housing policies for the young. Ultimately, in Mediterranean countries public spending is demographically skewed to the detriment of the young, the members of the population who have to face spending on housing (Lynch, 2001).

**Heterogeneity in the Southern European housing system**

The countries within Southern Europe are not a monolithic block. The Mediterranean system combines elements of welfare systems from different theoretical approaches. There are elements of the liberal regime and, moreover, of the corporatist one, with some touches of the social democratic regime (Allen et al, 2004). Spain has some traits that can be considered to be liberal, such as the recent process of widespread use of bank financing by young households (Ronald, 2007), shared with Portugal, but not with Italy or Greece; whereas in countries with a corporatist regime such as France (Bonvalet, Arbonville, 2006) and Germany not only state institutions, but also the family, play an important role. Undoubtedly, beyond the similarities found in certain quantitative indicators, the meanings and values underlying each system must be explored.

Some dynamic processes could throw into question certain fundamentals of the system in the future (Allen, 2006). The greater number of jobs in the flexible service industry, to the detriment of protected salaried sectors, may reduce vertical intra-family transfers, if the implicit preference for older age groups is questioned. This would question even further the role of the family in fast access to ownership by young households. In the relationship between housing provision systems and aggregate family and reproductive behaviour, Mulder and Billari (2010) did not find a common position amongst Southern European countries. Spain, Italy
and Greece have imperfect mortgage markets that hinder access to property, and very low fertility levels. However, Portugal has somewhat higher fertility levels, with an access to property which the authors describe as “elitist”.

Informal access to ownership, either through self-construction or other forms, is not as important in Spain as it was in the past (Allen et al., 2004). Poggio (2012) noted that Spain has a more developed housing sector. However, episodes of speculation and corruption are reminiscent of the role of informal business strategies, also in Spain (Gaja, 2007; Romero, 2010; Vinuesa, Martin, 2013). Guadalupe (2010) argued that there are strong differences in tenure patterns by young people in Southern Europe in recent years. For example, in Spain access of young people to housing ownership by means of a mortgage is much more common than in Italy. If these differences correspond to different generational innovations in each country, Mediterranean countries in the future are likely to show a growing divergence, as new heterogeneous behaviours extend to successive generations. Azevedo (2012) confirmed these differences based on age patterns, and noted a certain heterogeneity in the ordering of socio-demographic factors that influence access to home ownership, although without questioning the permanence of the common Southern European system.

The dynamic character of the Spanish housing system

We will now review how the dynamics of the Spanish housing system have been analysed. This cannot be an exhaustive review, and will be focused instead on those contributions that deal with the development of the flow of new households and the changes in access to housing.

The first level of analysis is the development of household formation. The Spanish system is characterised by a very strong demographic demand in recent decades, something that increased during the bubble years with the arrival of the baby-boom generation and foreign immigration. This has led to a false sense of structural integrity, interpreted as temporal stability of aggregate demand. However, there have also been various attempts to project the demographic base and extract the dynamic flow of new households. Here we are not concerned with whether they are correct, but rather, with whether critical dynamic changes have been foreseen. Indeed, Módenes et al (2012) estimated that the residential needs during the boom years could not have been planned properly on the basis of any previous official forecast, since none of them anticipated the intensity of the immigration flow. More specific short-term forecasts in recent years managed to contemplate this factor more appropriately, as well as the arrival to adulthood of the small generations born after the 1980s. AFI (2003), García Montalvo (2007, 2008), Vinuesa (2008) and Rodríguez López (2009) predicted an increase and a reduction in demand, coinciding with the boom and subsequent crisis, but failed to reflect both the highs reached and the lows that are likely to be reached. This was corrected by Módenes and López-Colas (2010) and Oliver (2012). Another source of error is the insufficient exploration of the variation in headship rates and household formation rates, which will be analysed in our empirical analysis.

Any contributions that deal with past changes are necessarily more accurate. The literature identifies the last growth cycle in demand. This started in 1997, after the crisis of 1992 had been overcome. It produced a genuine “shock”, given the combination of newly formed households (young people and immigrants) and in the level of upward demand. It was soon found that in the second

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8 Other key components of demand at the time will be excluded from this paper, such as (Spanish and foreign)
half of 2007 demand was drastically reduced (Rodríguez López, 2008). This 10-year cycle is the longest in the last 40 years (García Montalvo, 2007, Rodríguez López, 2008), and was combined with strong growth in construction and prices. Prices rose with the ease of obtaining a mortgage (Naredo, 2010), with low interest rates and long repayment periods, all of which was accompanied by an expansion in the number of new housing units available, thanks to a relaxation of planning instruments (Roch, 2001; Gaja, 2007; Naredo, 2010; Romero, 2010) that locally became independent of the population base (Vinuesa, Martin, 2013). As a result, many households undertook to dedicate a greater part of their income to mortgage payments and over an increasingly longer period of time (García Montalvo, 2007).

As for tenure, it is known that rental was still a usual option in Spain, especially in cities, in the mid-20th century (Cortes Alcala, 1995; Trilla, 2001; Naredo, 2010). It can therefore be considered proven that the dominance of ownership is not a permanent feature in Spain, and that the subsequent expansion of ownership (Naredo, 2010), although massive in scope, was neither inevitable nor necessarily desirable (following Kemery, 1981). It is contingent, and at least in theory, reversible. With regard to the most recent period, Módenes (2010) has analysed how the growth in mortgage financing helped spread home ownership amongst younger households, and has been a substitute for the traditional family support. During the last few years of the growth cycle, with the constant rise in prices, rentals began to increase not only for immigrants, but also amongst new young households (Módenes, 2010). This perception of a blockage in the system has led to the analysis of new forms of tenure (Buron, 2008; Hoekstra et al, 2010; Palacios, Vinuesa, 2010). The possibility of new housing strategies has now been noted; previously they had been rapid access to home ownership, in combination with the delay in leaving home, usually with a partner and with the support of parents (Jurado, 2006), in addition to a close location to the family network (Leal, 2010). The fact that housing purchases were increasingly more expensive (31% average increase in prices between 2005 and 2008 according to Rodríguez López (2008)), may have had an impact on the relativising of this traditional strategy among young people.

Leal (2010) proposed four, probably classic features of Spanish housing system, especially in regard to the experience of young people: delay in forming a household, priority given to ownership, close location to the family network, and family help in accessing housing. Any exploration of the dynamics of housing systems should be based, firstly, on the young, which was also suggested by Leal. They are compelled to face the existing conditions and make decisions much more often than other population groups. Leal explored recent dynamics, but at the time he was writing there were too many uncertainties. We believe that we can now start to clear some of them up. The following sections will include a discussion of the set of changes in these pillars of the Spanish housing system in recent years and the years to come, especially amongst young people. We will focus on two of the four factors proposed by Leal: 1) the flows of household formation and how these express the aggregate housing needs, and 2) the preference for ownership, which is fundamentally connected with family help. The accumulation of all these dynamic processes can lead to a gradual transformation of the system, which will perhaps be definitive in the long term.
A new demographic base for housing needs

Firstly, a change in the demographic structure needs to be noted. In the case of Spain, two unfavourable dynamics in demographic demand are simultaneously combined: 1) a succession of cohorts of strongly declining size in the age groups most likely to be affected and 2) the general ageing process.

During the second half of the 20th century, there was a growth of over 1 million people in the 25-29 age group, which can be identified as the key age in the process of household creation and demand for housing in Spain (Figure 1). This increase was due to a relatively high birth rate throughout the century, and outlined a reassuringly upward trend in the demographic base of housing needs. These positive aspects were reinforced in the last two decades of the 20th century, with the arrival of the large generations born in the 1960s and early 1970s. Nevertheless, in a context of recurrent economic crises, this population base justified the resort to housing construction as one of the solutions to the industry crisis of the early years of democracy.

This situation has changed dramatically in the new century. First, we have witnessed the arrival of immigrants attracted by the swan song of the old model. Just as the highest internal demographic demand was being placed on housing needs, large external immigration flows arrived, which can

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**FIGURE 1.** Population within the 25-29 age range and the 65-69 age range. Spain, 1950-2050

partly be accounted for by the demand for labour to work in housing construction (Friday, Gil, Galizia, 2010). This further increased the positive influence of the population base and remained in place well into the first decade of the 21st century.

Half way through the decade, it was noticeable that the members of the small generations born after 1975 had reached the age of 25-29, despite including the immigrant population. The drop in the number of people arriving at this age was sudden, rapid and radical, just as the plummeting birth rate had been previously. Immigration during the boom years increased the absolute population numbers, but failed to modify their subsequent negative dynamic. By 2010 the young population base had returned to its 1980 point. In 2020, when the most negative point of the current cycle will be reached, the young population base will be equivalent to that that existed before 1950.

Returning to a level of housing needs from more than half a century before will be a hard blow to the foundation on which the Spanish system has been based in the last few decades. But this involves a return to familiar ground, at least in the remote historical memory of the different agents involved. However, it is our contention here that the change in the demographic base will actually take us further, to a completely unknown scenario in contemporary Spain.

The size of the housing needs related to the demographic base is a net flow between households entering at the base and households being dissolved at the peak. In this last component, the size of the elderly population is directly proportional to the number of dissolved homes (Leal, Cortés, 1995) and therefore, to the flow of used homes returning to the market. The closer the number of the elderly is to the number of the young, the lower the need to build new housing, and the more important the rehabilitation and adaptation of the existing stock will be. The 65-69 year old population, as the gateway to advanced ages, continues to grow, but in parallel to the young, up until the sharp fall in the number of young people. The number of individuals aged between 65-69 years old continues to increase and it exceeds the number of the 25-29 age group at the end of this decade. A new stage is beginning in which demand by the young could be covered by dwellings released by household mortality9. This had been unexplored ground until now.

In other territorial contexts, we can find similar, but smoother patterns in the population (Figure 2). In the case of the European Union, by the end of this decade the number of new elderly will exceed that of new young adults. But the distance between the two groups is not as broad as in Spain. The change in demographic fundamentals will be less radical than in Spain. Nevertheless, countries like the United States and emerging countries will continue more or less along the lines of the previous demographic model, which involves the stable need for new housing construction to feed the flow of new households.

By using the method of headship rates10 the number of additional new households in each time period can be estimated. In this case fixed headship rates will be kept in the estimation, based on the 2011 Labour Force Survey (Encuesta de Población Activa de 2011). The results are not consistent with what has happened in the past, or in the foreseeable future; however they offer the possibility of measuring the influence of the po-

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9 If these houses were actually released, with no inheritance issues, and there were incentives to put them on the market instead of leaving them empty, they could be refurbished and satisfy demand from the younger generations.

10 These methods are widely used to project the flow of new households, and therefore, of housing needs. A good introduction to this and other household projection methods can be found in Yépez (2010).
population variation and the age-based structure of the net flow of new households. The line referred to households created or inflow in Figure 3 shows the effect of the change in size of the young generations, which is currently decisive; the line related to dissolved homes or outflow shows the effect of progressive ageing over the long term. These inflows and outflows are estimated by longitudinal comparison of consistent demographic cohorts.

When combining the two structural effects of households created and dissolved, there are four major stages of identifiable demographic influence in the 100 years between 1950 and 2050 (Figure 3). Until 1980 a very stable model existed, with the contribution of approximately one hundred thousand homes per year. Of course, this period is marked by large internal migration flows which caused great additional demand in immigration-receiving areas, and so the total housing needs were well above this figure. In fact, the economic crisis between 1975 and 1985 may be related to the end of internal migrations, the disappearance of the excessive housing demand, and the return to the demographic base.

From 1985 profound changes occurred in the demographic structure of the population, which took hold in the 1990s. The demographic base of demand for primary residences increased, thanks to immigration and to the coming to adulthood of the baby boom generations. The annual net change tripled at the start of the century. The non-Spanish population contributed to the net demographic demand, firstly thanks to the constant inflow during those years, and secondly, to their favourable age structure. In the main years of the bubble, up to 50% of the flow of new households could be accounted for by this contribution (Figure 4).

The outbreak of the current crisis coincided with the fall in net housing needs, a trend that will continue until 2020. The current reduction in the demographic base due to the halt in foreign immigration, the major role played by the small generations born in the low fertility years of the 1980s and 1990s, as well as the more gradual increase in availability related to household mortality augurs a structural and persistent low demand (Módenes Lopez Colas, 2010, Oliver, 2012), regardless of the development of the economy in general and the availability of credit in particular. From


Source: OECD StatExtracts. UN World Demographic Prospects 2011. Developed by the authors.
2020 this new stable model will be consolidated, with net need values bordering on zero.

**THE DYNAMICS OF HOUSEHOLD FORMATION AND CHANGES IN DEMOGRAPHIC DEMAND**

Following the discussion on the recent and likely future development of the population base, we will introduce the first parameter of housing behaviour: household formation. Firstly we will analyse the distinctive features that characterise Spain within the European context and its dynamic development, and then we will observe the annual net flow of households that can be deduced. This parameter directly indicates the aggregate housing demand for main residence. We will finally discuss how this aggregate demand may evolve in the near future.

**Recent variations in headship rates by age**

The development of household formation over time, which is in itself a form of housing behaviour, can significantly change the factors affecting the flow of new households. The main parameter is based on the behaviour of young people leaving home and the creation of young households. The second important parameter is provided by the housing behaviour of the elderly. Their growing housing autonomy, in conjunction with a longer life expectancy, and better health, extends the life of households and the occupation of dwellings, and this tends to result in a relative growing limitation of the flow of housing units returning to the market. Although of lesser importance, more and more influential is the dissolution and creation of new households by those of central middle age.
In general, the headship rate (or indicator of households formed at each age) is lower than in most neighbouring countries (Figure 5). This “shortage” is more pronounced in younger age groups, especially the 25-34 range, due to the fact that becoming independent from the family happens later in Spain (Vieira, Miret, 2010).

In the central age ranges, Spanish rates are also below those of the majority of countries, given the lower presence of single-parent families. There is also lower housing independence at advanced ages. Overall, there are fewer homes in Spain, and fewer occupied primary residences, than if household formation in Spain were the same as in other countries. If in 2009 the headship rates for Norway by age (the country with the highest rates) were applied to Spain, there would have been 22.3 million households, 5.2 million more than the existing 17.1 million households, that is, 30% more. If we compare Spain with a closer country, but one belonging to different regional housing system, such as France, 3.8 million homes would need to be added, 22% more.

As the differential shortage in Spain is structural in nature, household formation in Spain is not static at all. According to the headship rates obtained from the EPA (Labour Force Survey), the household formation in the 20-24, 25-29 and 30-34 age ranges...
improved during the housing boom years (Figure 6). We will see later what effects this had on the number of households formed.

**Estimations of main residence housing needs taking into account the dynamics of family formation**

This advancement in household formation by Spanish young people, without doubt also encouraged by the immigration that arrived in those years, fed back into the demographic base of the aggregate housing demand. In effect, year after year during the boom, additional households were formed that, based on past rates, would not have been formed. To the flow of new households determined by the size and structure of the population, has to be added an extra flow (positive or negative, according to whether household is advanced or delayed in the life cycle) which can be accounted for by the changes in headship rates, that is, by the dynamics of household formation behaviour. Divorce and separation also resulted in some additional households\(^\text{12}\).

Figure 7 brings us to this question in the most recent period. In order to estimate the net flow of new households we have used the annual headship rates by age provided by the EPA. These rates increased during the boom period. This has the effect that the annual flow of new households in this real dynamic scenario is greater than the flow resul-\(^\text{12}\) Separations and divorces also have a cyclical component. Times of crisis, like the present one, can reduce the intensity of this family transition, due to the economic and housing costs involved for both partners.
Recent Demographic Change and Housing in Spain: Towards a New Housing System?

From assuming fixed rates\textsuperscript{14}. This second scenario shapes the households created each year due to the direct effect of the demographic structure, without variation in household formation behaviour. If the variations in the headship rates by age of the EPA are considered valid, the net annual flow was close to 500,000 new households by 2006. In the boom years, between 50,000 and 150,000 new homes per year were accounted for merely by the boosting in household formation, of between 10\% and 20\% of the total. This upswing in family formation was, largely, a positive response to the better work conditions of young people (Requena, 2006). It cannot be ruled out that this improvement may have been the result of a reactive or defensive advancement, anticipating decisions to mitigate the progressive worsening of the conditions of access to housing.

In Figure 8 we have opened a time window into the recent past and the near future.

\textsuperscript{13} For the sake of clarity, the ages over 40-44 have been omitted, as they had a less positive dynamic during the boom years.

\textsuperscript{14} In each year there is a double contribution of new households from the young groups: those that correspond to the demographic structure, plus those brought forward due to the increase in the headship rates.

\textbf{FIGURE 6.} Recent development of household headship rates over time by age, under 45 years old\textsuperscript{13} Spain (percent).

Source: INE (Spanish Institute for Statistics): EPA (Labour Force Survey), various years. Developed by the authors.
Three basic stages can be seen: a) a gradual growth in household formation, which later accelerates into a rising cycle from 1985 to 2005; b) the stagnation and plummeting of the population base of housing demand between 2008 and 2010, which gives rise to a more gradual decrease until 2020; c) from 2020, a new model of zero creation of new households. The data concerning net household creation are eloquent. Between 1995 and 2005, in only 10 years, the creation flow was multiplied by four or five times. From 2007, in only five years, this flow again became divided by four or five, to return to its starting point. After 2012, it is predictable that there will be ever fewer homes, ultimately almost reaching zero.

At the peak of the housing bubble there may have been a population base that justified an important part of this construction. There is some consistency between the number of housing units built and the number of households created until 2005. There cannot be an immediate causal relationship between the two, at least not directly in the same year, but it does give an idea of the certain tensions existing in the supply/demand relationship. They were not as mismatched as we sometimes think. It must be taken into account that the completed housing includes all of the possible uses (family home, second home or investment). The curve in housing units started anticipates those completed by a range of 2-3 years until 2005. Supply partly responded to demand, but obviously some of the demand was a product of the very construction boom. It must be considered that immigration was attracted...
by the expansion of the employment opportunities in construction (Cachon, 2012), and in credit facilities related to the new construction.

Between 2005 and 2007 the final burst of housing units started did not match the housing units completed in later years once the crisis started, and obviously was not in line with the households created. As we saw earlier, the demographic structure already indicated that between 2005 and 2010 the demographic demand would collapse. What is curious, and also unfortunate, is that the process coincided in Spain with the international financial crisis.

The prediction of net household creation flow until 2022, using the INE’s short-term projections and the latest headship rates from the EPA, offers a new scenario of zero net demand. One of the engines of the Spanish housing system, the existence of a net demand sufficiently high to maintain a strong production sector based on construction, is therefore compromised.

**Impact on housing needs of the future changes in household formation**

Since 2010 headship rates by age have started to descend again (Figure 6). If the tendency persists over the next years of crisis, the effect on the flow of new households will be negative, as there will be a period of delay and postponement of young people’s movement away from their families, as happened in the 1980s. In the current context in which the demographic structure is very restricted in net household formation, changes in family formation will have much stronger relative effects than before on the flow of new households and therefore also on housing needs. Let us look at two exam-
ples (Figure 9). These examples illustrate the upper and lower limits of the future housing needs. As will be seen, this range will be very different from what was seen in the first years of this century. However it provides sufficient leeway for us not to be indifferent, either at an academic level, or, of course, at a political level.

What effects would a positive change in household formation rates have on the annual net flow? To answer this question we have undertaken a long-term estimation, until 2051, of the flow of new households if rates were to gradually evolve towards the current situation of one of the countries with the most intense household formation in Europe, Norway. If this could be achieved in some imaginary way, we would be forcing a breakthrough in household formation (with young people leaving home at a very early age), and intensifying the final level (one-person households, single parent households). If so, the annual flow of new households would be maintained in the next few years close to 100,000 annually. Nothing extraordinary, but certainly a positive, stable, demographic base.

What would happen if the formation of a significant number of households was to be delayed? If we assume that until 2021 headship rates may recede to the level of 2001 (nothing remarkable) and from this point the rates are maintained, this would be the beginning of a period of negative net household formation: up to 50,000 households less during 5-10 years. The subsequent recovery would mean a return to a slight surplus. But the demographic aggregate demand for the entire period would be zero. This assumption confirms the restrictive climate of our current family-based model. Any severe decline in household formation and the reversal to understandably defensive family strategies (return to the parental home, delayed emancipation, reunification of family nuclei in the same network) would lead to the emergence of a significant negative flow in the creation of new households. Moreover, achieving considerable stable flows of new households would only be feasible by implementing radical changes in housing, employment and credit policies, and through a development in the labour market and working conditions.

FIGURE 9. Comparison of forecast of net flow of households with fixed headship rates in 2011 with a) a forecast if headship rates evolve at the level of Norway (2009) and b) a forecast if headship rates recede to the level of 2001. Spain (thousands).

Towards a New Balance between Ownership and Rental

It seems clear that in the coming years, if not decades, we face a scenario of restrictive housing demand. In more normal economic conditions, a reduction in aggregate demand could be positive for the few young households that would be created. In a housing system based on ownership we would have to conclude that access to purchasing would be easier, because it would be favoured by the balance between supply and demand. However, in the current context of persistent recession, this conclusion is not so clear.

From the extreme use of bank financing to rental

Spain is normally thought of as a nation of homeowners. The vast majority of Spanish households, from virtually any age group, own their main residence. By way of comparison, Spain is above many of the surrounding countries, on a par with the Mediterranean countries and only surpassed by Eastern European countries (Figure 10). Now this is true when viewed from the point of view of households, which is what is being followed here. In a different publication it has been shown that, if we consider household formation and tenure options jointly (Yu, Myers, 2010), the ownership experience has not been so important for young people in Spain, with the extremely delayed emancipation being at least as important, if not more (Módenes, Fernández-Carro y López-Colás, 2013).

The dominance of ownership amongst Spanish households has been accompanied by an intense process in which access to housing has become conditional on bank fi-

FIGURE 10. Rates of home ownership of households by age of the household head. Selected European countries. 2009 (percentage).

Fuente: Eurostat, EU-SILC 2009. Developed by the authors.
Note: NO, Norway; NL, Netherlands; FR, France; DE, Germany; UK, United Kingdom; IT, Italy; ES, Spain; RO, Romania.
Since 1995, almost 90% or more of the people living in owned housing have purchased it through a loan or mortgage (Figure 11). For young people, the current choice between ownership and rental is in fact between paying rent and paying a mortgage; or rather, between these two options and not forming a household.

The owned household rates shown in the Survey on Living Conditions recorded a strong dynamic in recent years (Figure 12). While households of those over 65 years of age continue their historical increasing pattern, as successive generations already imbued in the predominant ownership housing model reach that age, the households of those under 30 years of age have experienced cyclical swings. During the boom years property ownership increased considerably. But from 2007, a significant decrease in ownership amongst young households was recorded.

Figure 13 visually confirms the above. In the boom years ownership still increased

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\textsuperscript{15} This retrospective information may not accurately reflect the distribution of options at the time of acquisition, especially in the earlier periods. There is interference between the options of access to home ownership and the propensity to mobility (and that time period has therefore disappeared). The most likely interference is probably that households that are most attached to the dwelling for family or emotional reasons (acquired by inheritance or as a gift, for example) have had a lesser degree of mobility. This may result in the initial distribution of propensities, regardless of subsequent mobility, being slightly different to that shown in the graph.
amongst households under 45 years old, and further in younger ones. The number of homeowners increased by 3 percentage points annually, while the number of tenants was significantly reduced. From 2007, these relationships were reversed. Rental gained relative weight amongst all households under 65 years old, and more intensely the younger

FIGURE 12. Recent temporal evolution in the home ownership rates by age of household head. Spain (2004-2011) %

Source: INE, Survey on Living Conditions (EU-SILC). Developed by the authors.

FIGURE 13. Annual change in tenure rates (percentage) by age of household head. Spain.

Source: INE, Survey on Living Conditions (EU-SILC). Developed by the authors.
the household. Other available sources have confirmed and broadened the scope of this change in young households. According to the Encuesta sobre Juventud y Vivienda de 2010 (2010 Youth and Housing Survey), 46% of emancipated young people between 18 and 34 reported that they live in rented accommodation, compared with 32% in 2005 (INJUVE 2005, 2010).

At this point the structural significance of these observed changes needs to be discussed. Sufficient time is not available to dismiss the possibility that all of these signs may be the product of short-term effects of the economic crisis. Cynically, one could argue that what is structural in our housing system is the public deregulation of access to housing, and the greater importance that the economic cycles have in its evolution. Hence the future of our residential system is determined by the succession of varying short-term responses, sometimes favouring ownership, rental, easy access to credit or the involvement of family networks, depending on each moment in time. However, in the current crisis the upswing in rental is undeniable, and there is not even a glimmer of a mid-term economic return to the lush scenario at the beginning of the century. Therefore, it is more than likely that rental will acquire increasing importance in our system. Nevertheless, the cohorts of young households who are now entering the housing system have already been affected by these new options, and the decisions to be made now and in the coming years will affect their housing situation throughout their entire lives. These cohorts will condition the housing characteristics of the whole of the Spanish entire system in the coming decades.

Rebirth of rental and ownership decline?
Explanatory demographic factors.

Knowing that new household formation decreases due to the evolution of the structure and headship rates, does the change in tenure options announced above have any tangible effect on the overall figures of rental housing?

The main argument in our paper is that structural demographic change, added to
Recent Demographic Change and Housing in Spain: Towards a New Housing System?

A breakdown of the socio-demographic effects (Das Gupta, 1978, 1993) on the change in the number of young adults (<45 years) who are homeowners allows this transformation process to be seen (Figure 14). In the 1990s the increase in the number of young homeowners was basically the result of the increase in the total number of young people. It was the purest expression of the Spanish housing system: a gradual increase in the propensity to ownership and a positive demographic base. Additionally, the process of delaying forming a household had not yet finished, and it detracted homeowners. The participation of immigrants was still not very significant. Meanwhile rentals continued their slow relative decline, although the favourable demographic change prevented a clear absolute decrease in the number of tenants.

In the residential boom (2004-2007), all the factors at play favoured the increase in the number of young homeowners, nearly 240,000 more each year. The baby boom generations were coming out of this age range, and therefore the endogenous demographic base as a factor was not very dynamic. However, the main factor in explaining the increase of young home ownership, with 36% of the total, was an improvement in rates of family formation. In addition, the con-

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16 The standardisation and decomposition of rates are widely used demographic techniques to compare rates and arithmetic means among groups with differences in composition or structure. Standardisation has traditionally been used when comparisons of rates are distorted by substantial differences in the composition of the two populations. It is an axiom in demography that what appears to be a difference in the rates of two or more groups may be due to differences in their respective population structures. Usually different forms of standardisation have been used to adjust these rates. Decomposition goes a step further by assigning the rate differences to different components (Chevan, Sutherland, 2009).

17 A recent example of the use of rate decomposition techniques for analysing the dynamics of home ownership from an international comparative perspective is Andrews and Caldera (2011).
tinuous increase in the propensity to home ownership accounts for a good number of the new homeowners.

Without the arrival of young immigration, the rental drop during the boom would have been greater (Figure 15). The improvement in household formation is a factor that very directly affects the development of new rental households. Immigration and improvements in household formation more than offset the main negative factor, which in these years was the decrease in the propensity to rent.

After the bubble burst, in the current scenario, the endogenous population base became a negative factor due to the decline in the number of young people reaching the age to form a household. The crisis began to have an influence on the stagnant household headship rates, so these had a very small positive effect. The effect was already fully negative among households with heads under 30 years old. But the most negative factor was the change in ownership propensities. This change in behaviour offsets by far the remaining positive effects of the demographic base and of household creation. This means that, in the last period, more than 6000 owned households were lost each year.

In sharp contrast, the increase in rental rates for youth almost entirely accounts for the considerable flow of new young rental households, 48,000 each year, without help from the demographic base or from household formation behaviour.

In short, in the new century rental has become increasingly important in the Spanish housing system. Stalled among the young, and in decline among all homes during the 1990s, this scenario, which feeds the traditional image of the system, has since changed. During the boom years, young people increasingly opted for property ownership; however, the considerable increase in young people forming households has led to an increase in the number of rental households. But the crisis was in full flow when young people returned to rental as a firm housing option. The change in the propensities was able to compensate for the negative demographic change and the problems in forming a household. This is still not the favourite housing option for young people, but the change is important, and could be fundamental.

**Conclusion: The future of the housing system in Spain**

Change/development, of the system, or change/replacement, of a system? This is the question that has guided this paper. The answer is that there is surely a fast development, which may become a replacement if everything remains the same. It is difficult to give an indication of long-term, dynamic trends beyond the transformations caused by the current context, but some suggestions will be provided, to be confirmed or refuted with the passage of time. This paper has been focused on young households because they are the ones currently facing the most important housing decisions in their life, which will crucially affect the rest of their housing behaviour and, consequently, will influence the traits of the housing system in Spain in the future.

The current development patterns can be summarised in these two points:

1) In the next few years it is anticipated that there will be a drop in demand to nearly zero. The radical reduction of the demographic base that contributes to the housing needs is one of the main aspects of the fast development of the housing system. At present the three sources of demographic demand have practically disappeared, namely, a favourable pyramid, immigration and favourable change in household formation.

2) It is expected that the demand for rental housing will be resumed and consolidated in the near future. Regarding the behaviour features characterising the housing system,
it has been argued that a new strategic diversity has emerged whereby access to rental housing must be now added to the dialectic relationship between access to property and the delay in young people leaving the parental home.

What are the future scenarios opening up in the Spanish housing system? Again, they can be synthesised in two points:

1) A “development” scenario of linear, negative change with respect to the situation known in recent years. An assumption can be made that a low level of economic growth may be consolidated, with weak job creation and precarious conditions in the younger years. Access to housing would continue to be on an ownership basis, but with restricted credit and difficulties to mobilise the family support network.

The low housing needs on an aggregate basis would be combined with a low, late propensity on an individual basis. This would be the worst option for the construction sector engaged in primary residence building, as its business and employment levels would become severely diminished. In addition, this downward scenario would persist, given the delay in family formation and low fertility levels.

2) A “replacement” scenario in the housing system. The housing paths involving rental before accessing ownership, which are highly common in other countries, would become consolidated. This would therefore be a scenario of housing convergence. What kind of rental will it be? Certainly not publicly-supported rental in the short-term. The Spanish Social Fund for Rental Housing (Fondo Social de Viviendas en Alquiler) is a recent measure for people who have been evicted, but its quantitative scope is fairly limited. But it must be taken into account that one of the virtues of the immigration flows of recent years was that they fuelled a supply of rental family housing, by activating chains of vacant housing units when their former occupants moved on. This scenario would be reinforced if an active housing policy were developed, focused on increasing rental incentives further, since they were only introduced somewhat hesitantly in the last decade. The construction sector should focus on renovate the stock of old housing, which will be the main source of housing for young people. In this scenario, some relevant positive effects are to be expected on family formation and earlier fertility.

It cannot be said, on the basis of the information available, that the Spanish housing system has already transformed. However, even a gradual, incremental process can give rise to a decisive change in the housing system (Malpass, 2011), with no need to radically break away from the past. The vast majority of households, mainly the less young ones, live according to the old parameters of the system. But there are a number of signs of change, particularly among the young population. We can only conclude that we are heading towards a new housing system, if the trends described become significant over time, that is, if innovations are not abandoned in the short term by the current young generations, they are supported by active housing policies and they are, in turn, adopted by the following generations.

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**RECEPTION:** March 21, 2013  
**REVIEW:** September 19, 2013  
**ACCEPTANCE:** January 22, 2014