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TOPIC/SESSION 4. INTERNAL MIGRATION, **REGIONAL AND URBAN ISSUES**

Demographic foundations of the last Spanish housing cycle: An unforeseeable anomaly?

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Short abstract

Housing is a result of the population demand. Cheap mortgage interest rates and demographic forces have fuelled levels of residential sales during the last housing boom in Spain. Absence of bank credit and demographic forces explain the current bust. Besides economic and financial variables, demographic forces provide a long-term framework for understanding the housing boom and bust in Spain. But the fact is bubbles are often identified retrospectively, and generally, explanations focus on the market neglecting the influence from population dynamics. In this regard, this paper analyzes the implications of demographic change on the Spanish housing cycle. Furthermore, it explores if it had been possible to identify the past housing boom and bust using existing projections. Hence, the dual aim of this submission. On the one hand, to analyze if past official and international projections could anticipate the evolution of population and housing demand which later took place during the years of housing and economic boom in Spain. Second, although we can not measure their accuracy beforehand, we will offer different dynamic scenarios over the next 10-15 years mainly in function of different rates of household headship by age, using the current official projections of the Spanish population. Data comes from official and international projections (Spanish statistics office, Eurostat, UN) and headship rates estimations from Spanish Labor Force Survey. The results confirm that Spanish housing demand is in part characterized by a strong demographic cyclical component. On the one hand, the past economic boom greatly increased housing demand via immigration, even well above larger countries in Europe. On the other, the current crisis may lead to negative net housing demand for the first time in many decades.

Extended abstract

Introduction and Background

Housing is a result of the population demand. Cheap mortgage interest rates and demographic forces have fuelled levels of residential sales during the last housing boom in Spain. Absence of bank credit and demographic forces explain the current bust. Besides economic and financial variables, demographic forces provide a long-term framework for understanding the housing boom and bust in Spain. But the fact is bubbles are often identified retrospectively, and generally, explanations focus on the market neglecting the influence from population dynamics.

The fundamental driver that generates estimates of future housing needs is projected population growth. In principle, a great many factors could drive future needs, including employment growth and housing market projections, political initiatives, or other factors. For a variety of reasons, however, population projections have been universally adopted as the basis for estimating housing needs. One advantage is that people and housing units are closely linked. Perhaps more important, population projections are widely available and are in fact the most common means by which national and local governments quantify the future for planning purposes. Population projections have been highly institutionalized, and projections of housing needs based on population have an inherent credibility (Myers et al., 2002). Normally, population projections are made following a components method (or some more or less complex derivative) and household projections normally are made from household headship rates by age, or rather from some improvement of this method.

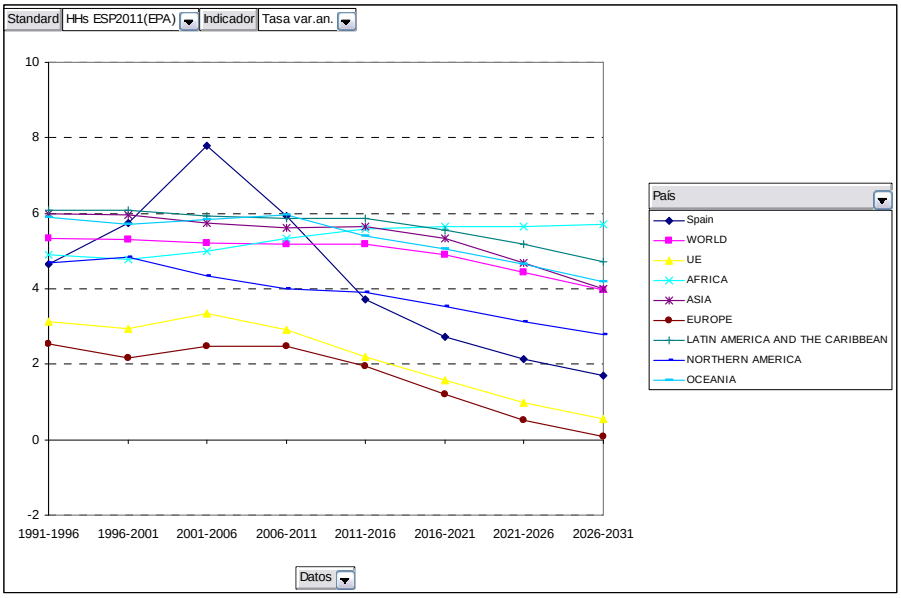
Population projections are simple mathematical extrapolation of current trends and assumptions about the future. They could be meant to illustrate and compare the results of various policies, or to warn policy makers about the consequences of current trends, if all goes on unchanged. Projections are, nevertheless, frequently regarded as predictions, that is, as statements about what is likely to occur. Users often interpret projections issued by government agencies in this way. It is in this sense that we can talk about the accuracy of population projections (Stoto, 1983).

Actually, projections are vey useful if we look the present through past projection's eyes. Some times projections show a very low accuracy. Projection errors come about normally because reality changes in new and unexpected ways. Some times national or regional populations must go through these exceptional periods, due to natural catastrophes, wars, deep policy changes, abnormal emigration or immigration in relation to economic changes, etc. These periods are, with the usual demographic methods, unpredictable in advance. Indeed, the more challenging point of demographic projections is the anticipation and dating of sudden breaks in trends.

Spain has experienced such an exceptional demographic conjuncture in the broadly 10 years between mid nineties to 2007. The arrival of a huge immigration flux of about 5

million people modified completely the path of population growth at the turn of the century. While demographers and other researchers working in early 90's were thinking in a Spain of 40 millions inhabitants for the early 21st century, reality has put this number in 46 millions. One of the largest social and economic consequences has been a very high demand for accommodation to hundreds of thousands of new households that were being created each year (González, Ortega, 2009). In this sense, we must highlight the rapid market response to such demand, although it had negative effect from environmental and urban planning points of view.

Table 1. Net rate (%) of household growth per year. Spain and world large regions. Estimates and projections.



Source: Based on UN, World Population Prospects 2011
Headship rates from Spanish Labor Force Survey, 1st quarter 2011.

This new demand was not anticipated and surely could not have been so, although the most sophisticated population projections and / or qualitative prospective methods could have been implemented. In the case of Spain, most of the resulting inaccuracy found in recent projections has been in terms of the population's size and structure. The possible errors committed in the hypotheses of household formation are of minor importance in this context. However, in the current situation of economic stagnation the safest scenario for the near future is that population will continue its current inertia to low growth. The biggest source of uncertainty is moving so to household formation rates, greatly affected by the negative economic conjuncture.

Hence, the dual aim of this submission. On the one hand, to analyze if past official and international projections could anticipate the evolution of population and housing demand which later took place during the years of housing and economic boom in Spain. Second, although we can not measure their accuracy beforehand, we will offer different dynamic scenarios over the next 10-15 years mainly in function of different rates of

household headship by age, using the current official projections of the Spanish population.

Hypotheses

1. The Spanish demographic boom of the ten years before 2007, fed by the high international immigration influx, was not anticipated by any major population projection. Therefore, it was impossible to foresee in advance the dynamics of aggregate housing demand. The supply-side response of the building sector had nothing to do with the existence of proper planning tools based on projections, and all with a trial and error strategy.
2. The inaccuracy in predicting housing demand was caused by the inability to correctly project the base population. The choice of headship rates had a minor role in explaining the error.
3. The immediate future of the Spanish population growth is highly inertial because surely the role of migration will be reduced dramatically. Thus, in order to forecast correctly housing demand in the next years, the more important factor to be taken into account is the household formation of young adults, as its uncertainty in a context of economic turmoil has increased.
4. The Spanish housing demand is characterized by a strong demographic cyclical component. On the one hand, the economic boom greatly increased housing demand via immigration, even well above larger countries in Europe. On the other, the current crisis may lead to negative net housing demand for the first time in many decades.

Data and method

We would like to use a comparative approach along the research. That is, we will compare the Spanish recent evolution with other countries, especially European ones, in order to grasp the true magnitude of the former high-demand cycle. For this, we use not only the successive Spanish official projections developed by the National Institute of Statistics, but also different editions of other multinational projections, as those of Eurostat and UN.

We will calculate how many households were created during the boom, according to population estimates produced by past projections covering that period. Of course, many past projections and all those currently in place project the population change over the next 10-15 years. New households for this period will be estimated using different distributions of headship rates by age and, therefore, the flow of the immediate housing demand can be modulated according to household formation hypotheses. Such headship rates assumptions come from the analysis of recent calculations from the Spanish Labour Force Survey, which provides quarterly data on the dynamics of household stock.

Expected results

Spain is a pretty extreme case of short-term demographic volatility. Cyclical factors (economic cycles and immigration) in combination with demographic structural elements (a skewed age pyramid) explain this pattern. While the momentum related with the demographic structure is controllable by projections, the unexpected population impact of strong economic fluctuations in terms of immigration is not predictable by demographic

methods.

The intense population-based growth in housing demand during the early 2000 came unexpectedly. A positive swing had been anticipated following the arrival of the baby boom cohorts (born between 1965 and 1975) at the ages of highest demand (in Spain between 25 and 30 years). But the addition of the international immigration flow was totally overwhelming. Regarding the immediate future, a reduction in housing demand due to the aging of baby boom cohort had been already announced, beginning in 2007. However, the depth of the current crisis and the subsequent stagnation in the creation of new young households announce a further and extreme crisis in housing demand in the coming years.

References of the abstract

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