Supply and demand conditions in the Spanish property market and considerations for the SAREB

María Arrazola[1], José de Hevia[2], Desiderio Romero-Jordán[3] and José Félix Sanz-Sanz[4]

Current forecasts for macroeconomic and demographic factors affecting Spain's property market suggest a robust recovery in the Spanish property sector is unlikely in the near term. SAREB's initial plan to sell off acquired property assets, which contemplates an extended period of up to 15 years to complete the sale, seems to be reasonably adapted to this scenario.

Several supply and demand side factors are attributed to fuelling Spain's property market bubble from 1997-2008 and its subsequent collapse coinciding with the global financial crisis. This article sets out to examine supply and demand side determinants of Spain's housing market, such as population growth, household incomes, unemployment, production costs, real interest rates, and house prices, among others. At present, it appears that most of the factors that worked together to promote the property boom between 1997 and 2008 are now conspiring to prolong the crisis in this sector. The negative impact of slow population growth and high unemployment largely outweighs the positive impact of lower prices on housing demand. This is the challenging scenario SAREB will likely face as it attempts to implement its mandate and sell off property assets transferred from the Spanish financial system.

Introduction

The property boom Spain experienced from 1997 to 2008 would not have been possible without the almost unlimited financing of the property sector by the Spanish banking system. Nor is it possible to explain Spain's current banking crisis without taking into account the bursting of the property bubble and the excessive and unjustified exposure to property risk that the Spanish financial sector built up over the years. Once the bubble burst, the enormous weight on banks' balance sheets of home loans and lending to the property sector jeopardised the viability of a substantial part of the Spanish banking system. Spain's banking crisis has been of such a magnitude that, in 2012, it forced the government to request assistance of up to 100 billion euros from the Eurogroup to shore up the country's ailing banking sector. This assistance took shape in a Memorandum of Understanding (MoU), and it was in the specific context of this MoU that the

[1, 2, 3] Rey Juan Carlos University.

[4] Madrid Complutense University.

SAREB (Asset Management Company for Assets Resulting from Bank Restructuring), better known as the "bad bank," was created. This entity has taken over the high-risk property assets held by recapitalised and nationalised banking institutions and will manage assets worth around 55 billion euros. Approximately two thirds of this amount is in the form of loans and credit linked to the property sector, the remainder being property assets. The SAREB will consequently be handling the sale of some 89,000 properties received from nationalised financial institutions.

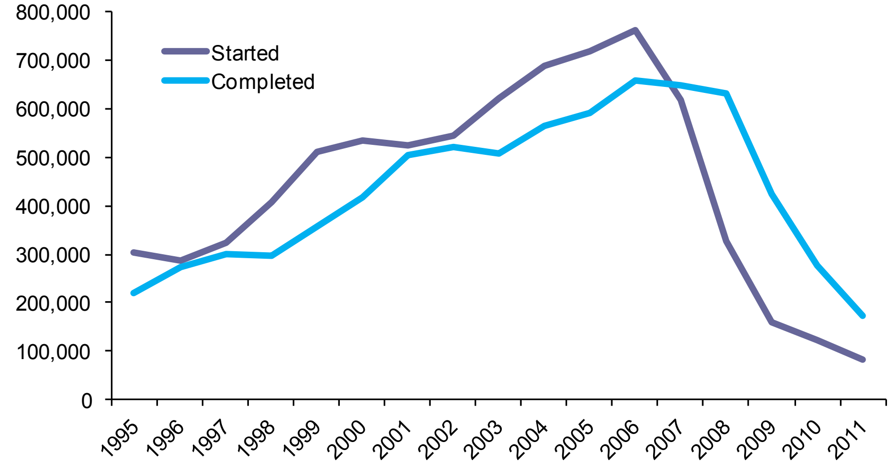
The SAREB aims to be a fundamental tool in the process of cleaning up the Spanish financial sector, while also seeking to ensure that its shareholders can obtain a profit from the asset liquidation process. Whether the SAREB is able to perform its task successfully will depend on numerous factors, but the conditions prevailing in the property market in which it will operate will undoubtedly be crucial. The main objective of this article is to analyse current property market conditions, using the results we have obtained from recent research on determinants of supply and demand in the Spanish property sector[5].

The Spanish housing market 1995-2012

Since the early 1970s, the Spanish property market has experienced three booms. The first began in the early seventies and ended in 1973 with the first oil crisis. The second took place between the mid-80s and the early nineties. The latest, and most intense of these booms, began in 1997 and ended in 2008, coinciding with the start of the international financial crisis. Exhibit 1, which shows the annual progress of the number of homes begun and completed in Spain between 1995 and 2011, illustrates the scale of the boom. As the exhibit shows, between 1997 and 2008, the annual average number of new housing starts exceeded 550,000 homes –peaking in 2006 at a figure of close to 760,000– with completed homes following the same trend with a time lag of just over a year. As a further indication of the intensity of this boom, Spain accounted for approximately 40% of all new homes built in the European Union

Exhibit 1

Trends in housing starts and completions



Note: Aggregate annual values based on monthly data.

Source: Ministry of Development.

[5] Arrazola, M. J. de Hevia, D. Romero and J. F. Sanz (2013); "Determinants of the Spanish housing market over three decades and three booms. Long-run supply and demand elasticities", (mimeo).

As a further indication of the intensity of the property boom, Spain accounted for approximately 40% of all new homes built in the European Union (EU) during this period (1997-2008) and the boom resulted in an increase in Spain's housing stock of no less than 50%.

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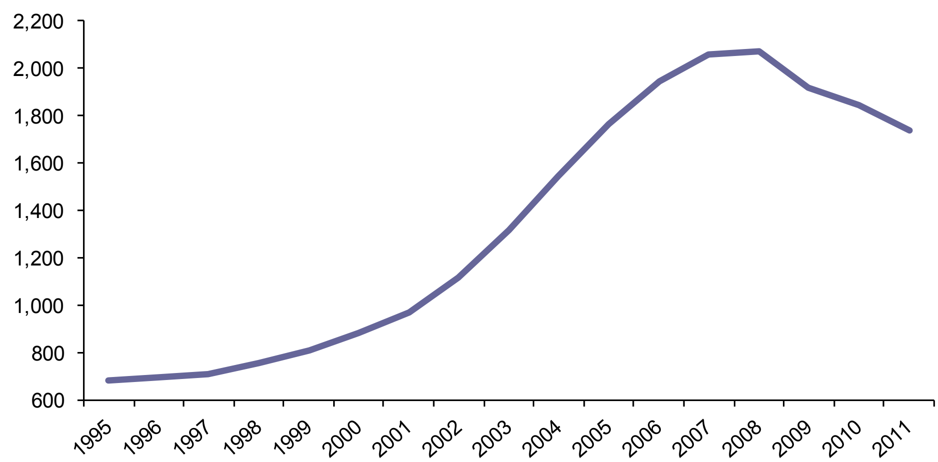
Surprising as it may seem, this boom in home building was accompanied by sharply rising prices. Exhibit 2 illustrates how between 1997 and 2008 the average price per square meter of homes in the free market almost tripled, rising from 711 euros to 2,070 euros.

The rapid growth both in home building and property prices in the Spanish market between 1997 and 2008 was driven by strong simultaneous pressure from various factors. One of the factors increasing the pressure on the demand side of the housing market was population growth, driven primarily by immigration. Spain's population grew by around six million between 1997 and 2008. Other factors stimulating demand in this period included Spanish households' rising incomes, for example in terms of gross national per capita income (at purchasing power parity in current dollars), incomes doubled between 1997 and 2008; along with the improved labour market and consequent drop in the unemployment rate, which fell from 22% in 1996 to around 8% in 2007. Nor can one overlook the unprecedented drop in the cost of home loans, initially due to the efforts to meet the Maastricht convergence criteria, and later, thanks to Spain's membership in the euro. In 1996, the nominal interest rate on mortgage loans granted for home purchases was around 9%. This dropped to 6% in 1997 and was less than 5% between 1998 and 2007. In real terms, interest rates stood at over 5% in 1996, but were rarely above 1% between 1999 and 2006. Other factors also exerted exceptional pressures on Spain's housing market, such as the atypical

Exhibit 2

Trend in price per square meter of free-market housing



Note: Aggregate annual values based on quarterly data.

Source: Ministry of Development.

preference Spaniards have for home ownership[6], the existence of tax incentives to encourage home buying, and, of course, the continuous rise in home prices in real terms, which made buying a home a very profitable investment. The combination of these factors, in conjunction with the ease with which Spanish businesses and households were able to borrow as of the late 1990s –a situation not seen before in Spain– all helped fuel the Spanish property boom. This resulted in a property bubble that ultimately burst with devastating consequences for the Spanish economy and financial system.

Exhibits 1 and 2 illustrate the scale of the collapse of the property boom. For example, in terms of housing starts, in 2011 there had been a drop of 90% from the peak in 2006. And in the case of free market housing prices (i.e. excluding subsidised social housing), which peaked in 2008, by 2012 there had been a drop of around 26%, equivalent to a decrease of 32% in real terms. In 2012, the price per square meter in the free market had returned to 2004/2005 levels in nominal terms, and to 2002/2003 levels in real terms.

Nevertheless, the significant drop in housing prices has been insufficient to stimulate the property market. Indeed, Exhibit 3, which shows the number of property transactions in the free market, reveals how the total volume of transactions in 2011/2012 was just a third of that in 2006/2007. Similarly, Exhibit 4, showing the trend in the unsold housing stock, illustrates how this rose

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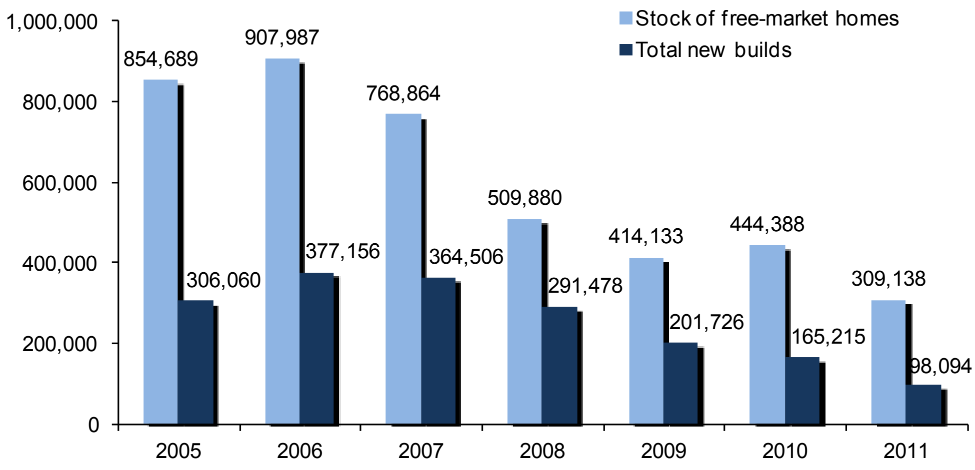
Exhibit 3

Sales of free-market homes

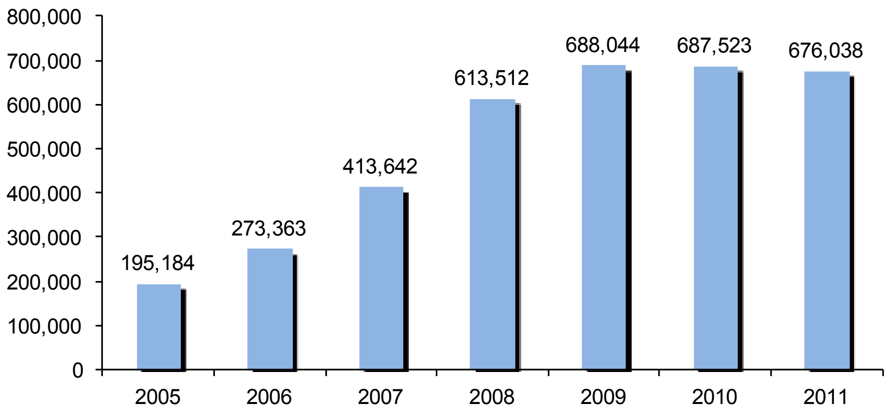


Source: Ministry of Development.

[6] The facts available indicate that 83.2% of Spanish households own at least one home, a figure slightly higher than that in Ireland (81.2%) and much higher than in other countries with a higher per capita income, such as the United Kingdom (70.7%), the United States (68.7%), Germany (41.0%) or Switzerland (38.4%).

Exhibit 4

Accumulated stock of unsold new housing



Source: Ministry of Development.

sharply after 2007 to reach a plateau at around 700,000 homes in 2009. This is explained by the fact that the non-price factors exerting pressure on the housing market (population, income, unemployment or ease of borrowing) ceased to do so in the wake of the 2008 crisis. Population growth slowed markedly after 2008. In the run-up to the crisis, the population was growing at a rate of 1.6% a year. In 2011 growth had slowed to just 0.1%, and the figures for 2012 suggest the population shrank by approximately 0.1%. Incomes have also performed poorly in Spain in recent years. For example, gross national per capita income (at purchasing power parity in current dollars) fell by 2.7% between 2008 and 2011. This fall has, of course, been influenced by the catastrophic trend in unemployment, which soared to 26% in 2012. Likewise, the international financial crisis and the Spanish banking crisis have totally reversed the considerable ease with which businesses and households were able to borrow prior to 2008. Thus, it would seem that most the factors that worked together to fuel the property boom between 1997 and 2008 are now conspiring to make the crisis in the property market drag on for several more years.

Elasticities of supply and demand in the Spanish housing market

Against this backdrop, it is worth exploring the sensitivity of the Spanish housing market to various supply and demand determinants and the extent to which the facts mentioned in the previous section are consistent with these sensitivities. As noted, to do so we have carried out research analysing each of the Spanish housing market's supply and demand determinants separately. This involved making estimates with a model using data for the value of Spain's gross stock of unsold housing in real terms, actual house prices, and a set of variables which, together with prices, can determine housing demand (population, real interest rates, a permanent measure of income –GDP per capita– and the unemployment rate) and supply (real costs in the construction industry and real interest rates).

One interesting –although predictable– result is that when there is an imbalance in the housing market, in terms of timing, prices adjust much faster than the stock of housing. Thus, when we

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Table 1 gives a summary of the results obtained regarding the sensitivity of supply and demand to their components. We made two types of estimates: one in which the speed of adjustment towards housing supply equilibrium was set (columns II) and one in which it was not (columns I). However, it should be noted that, from the econometric point of view, the conceptual framework used for the study seems to work better for demand than for supply.

The results show that, over the long run, demand is much less sensitive to prices than supply. As Table 1 shows, estimated price-elasticities for demand were -0.156 and -0.165, depending on whether or not the speed of adjustment was set. This result no doubt explains how demand for homes did not slacken even though prices rose so much during the boom, and why even though prices have now dropped considerably (by more than 30% in real terms between 2008 and 2012) this has not been sufficient to stimulate demand. Moreover, the supply-side price elasticity estimates vary considerably (1.309 and 0.433, respectively) depending on whether the speed of adjustment is set or not. Nevertheless, supply is clearly much more sensitive to prices than demand. This is entirely consistent with what happened to home building during the property boom and subsequent slump.

On the demand side, unlike what we see in the case of prices, the results obtained show the existence of a marked sensitivity to trends in other factors. Thus, population growth appears to exert significant pressure on demand, with estimated elasticities of close to unity (see Table 1). These

Table 1

Value of the gross stock of housing: Estimates of long-term elasticities

	Demand		Supply	
	(Model I)	(Model II)	(Model I)	(Model II)
Real housing prices	-0.165 (0.054)	-0.156 (0.076)	0.433 (0.048)	1.309 (0.591)
Population	0.941 (0.170)	0.965 (0.225)	-	-
Real interest rates (*)	-0.358 (0.167)	-0.356 (0.160)	-1.167 (0.369)	-5.732(*) (3.190)
Real construction costs	-	-	-0.690 (0.075)	-0.327(*) (0.398)
Unemployment rate(*)	-2.116 (0.307)	-1.987 (0.875)	-	
Per capita GDP	0.513 (0.031)	0.504 (0.066)	-	

Notes: Standard errors in brackets. (*) Semi-elasticities.

Source: Own elaboration.

values suggest that rising population may have been a key factor in the 1997-2008 property boom, and that population stagnation could be having a damping effect on housing demand today.

Similarly, trends in income and unemployment rates seem to have a strong influence on housing demand. As can be seen in Table 1, the estimates of long-term demand elasticity are around 0.5 and the semi-elasticity of demand to the unemployment rate is around -2, highlighting that incomes, and particularly unemployment, are powerful drivers of increases or decreases in housing demand. Again, these results are consistent with events between 1997 and 2012, as they explain how the sharp drop in unemployment and increasing incomes stimulated the property boom, and how falling incomes and, in particular, soaring unemployment, have undermined housing demand despite the current downward trend in prices.

As regards the effects of financial conditions on the housing market, real interest rates also emerge as an important determinant of housing demand and supply, which is entirely consistent with what happened during the property boom. Indeed, the fall in interest rates that was made possible by Spain's joining the euro, in conjunction with the huge range of borrowing options open to businesses and households, fuelled both the housing supply and demand for homes. Nevertheless, it is worth noting that, just as in the case of prices, demand is much less sensitive to real interest rates than supply. Specifically, the estimated semi-elasticities of demand were -0.356 and -0.358, whereas on the supply side the values obtained were -5.732 and -1.167. In any event, on the financial side, although real interest rates were, on average, higher over the period 2007-2012 than between 1997 and 2006 (1.7% compared to 1.1%), real interest rates do not appear to underlie the sluggishness of the housing market as much as the credit restrictions caused by the banking crisis in Spain, which have led to a substantial tightening of the requirements for loan approvals, even when backed with a mortgage guarantee.

Lastly, on the supply side it is worth noting that we have found evidence of sensitivity to production costs. Specifically, when the speed of adjustment is imposed on the estimates, an elasticity of -0.69 is obtained.

These results and current forecasts of the determinants of property market supply and demand suggest that a robust recovery in the Spanish property market is not likely in the near term. In a context that remains characterised by zero population growth, rising unemployment, contracting GDP (shrinking by 1.5% in 2013 according to the estimates of the European Commission and the International Monetary Fund) and declining household disposable income (slowing to a rate of 3.2% in 2012), the cuts in home prices that have taken place and will continue (both the IMF and the European Commission predict further drops in average housing prices in 2013) do not appear to be sufficient stimulus for a substantial recovery in the property market in the near term.

Against this backdrop, the SAREB will be handling the sale of some 89,000 properties. The average discount on these properties (with respect to their original market value) will be approximately 55%. Although this discount is substantial, the difficulties the SAREB will face are still significant, given weak internal demand. Nevertheless, SAREB asset sales may happen faster than anticipated if the long-term outlook for Spain and the Euro Zone shows improvement in the short and medium-term. Such a scenario could serve as a catalyst to attract foreign demand, including various types of investment funds, seeking to take advantage of the deep discount on real-estate related asset prices[7]. It is worth nothing that

[7] Data show that, after years of adjustment, the number of residential properties purchased by non-residents in 2012 is very close to the situation seen in 2007, prior to the end of the real estate bubble.

between 2008 and 2011, residential property prices fell, on average, 19% in nominal terms. Nevertheless, the adjustment was much greater in some geographic areas, for example the Mediterranean coast, where the fall in prices in some municipalities was above 30%. Such a decline is in line with some of the more pessimistic estimates of overvaluation in the residential property market, made by institutions such as the Bank of Spain, or the International Monetary Fund, whose estimates are close to 30%.