

Spanish Banks and the Housing Crisis: Worse than the Subprime Crisis?

Antoine Gentier

*Professor, Faculté d'Economie Gestion, CERGAM
Aix-Marseille Université, France
antoine.gentier@univ-amu.fr*

ABSTRACT

The aim of the paper is to evaluate the consequences of the Spanish housing crisis on the banking system. The Spanish crisis is due to an over production of dwellings. We first analyze the different factors of the crisis. Institutional factors crippled the housing market and make it more prone to speculative behavior. There were also external factors such as cheap interest rates or the divergences of price competitiveness inside the Euro zone. Then we analyze the real difficulties of the Spanish banking system. The banking system has financed households and entrepreneurs during this housing bubble. Doubtful loans from households used to be a major source of repayment's difficulties. Households still to be a large part of doubtful loans, but entrepreneurs from the housing sectors (construction and real estate) contribute to the doubtful loans increase. The entrepreneurs' contribution to doubtful loans is always forgotten by official data and we explain why this information should not be ignored. At the end, the paper tries to give some order of height of this Spanish crisis, relatively to the banks' equity capital.

JEL Classifications: G01, G21, G32

Keywords: Spanish banking crisis; assets inflation; housing bubble; doubtful loans

I. INTRODUCTION

The subprime crisis has retained much of the public attention since 2007. Nevertheless, European countries had also endured several assets inflation linked to the low level of the interest rates since 2001. Among the Euro zone, the effects of the Spanish housing crisis should be analyzed carefully. The main facts about the Spanish housing bubble are particularly striking. The Spanish economy has produced a stock of 2 millions of empty accommodations in 2010, the same amount than the US subprime crisis. The Spanish GDP represents 10% of the USA GDP and the Spanish population is 6 times lower than the American one. This brief sum up of the Spanish situation shows its particular severity. The aim of the paper is not to establish a comparison between the American subprime crisis and the Spanish housing crisis. It will be worthless to set up a virtual competition between two very different cases. The aim of the paper is to explain the origins of the Spanish housing crisis and to examine the risks born by the Spanish banking system. The Spanish banking system is facing an increase in the amount of doubtful loans. The major part of this increase is due to housing crisis. Banks has taken risks on the supply side of the housing market by financing construction projects and real estate services. They have also taken risks on the demand side by financing households with variable interest rate loans. The official communication is only done with the rate of doubtful loans from the households. The paper provides several evidences that the risks born by Spanish banking system are under evaluated.

II. THE ORIGINS OF THE SPANISH HOUSING BUBBLE

Spanish economy was stricken by a very severe recession since the end of 2007. At the mid 2011, the rate of unemployment has reached more than 20% of the workforce, the government faces a difficult fiscal situation and the interest rate gap for treasury bonds with Germany is widening. The Spanish economy has built up 2 millions of empty dwellings, and we will first examine the causes of the crisis. There are institutional and external factors such as the euro zone mechanisms, but there also Spanish internal causes.

First of all, a market economy depends on the price mechanism. In the Spanish case, two main prices were manipulated, and for a long time, these prices couldn't produce the necessary adjustment. The exchange rate and interest rate has created incentives for Spanish entrepreneurs to invest in the housing sector. During the 2001-2007 period, Spain was able to finance its public debt and all the housing projects with very cheap interest rates. The Spanish interest rate was very near to the German one, but the risks and the productivity of the Spanish economy were very different from Germany.

Spain belongs to the Euro zone, so its economy has to compete with other European countries under a fixed exchange rate regime. Spanish economy has suffered more inflation and less productivity gains than the other Euro zone countries such as Germany. The lack of price competitiveness prevents Spanish entrepreneurs to succeed in tradable goods industries. So the Spanish entrepreneurs preferred to develop non-tradable goods industries such as real estate, construction or tourism.

The asset inflation in housing also depends on the characteristics of the Spanish housing market. Owners dominate Spanish housing market, and the rental market is

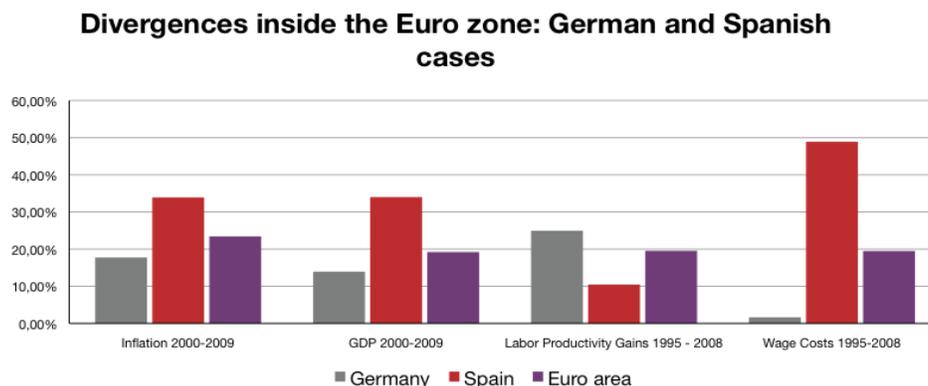
marginal: owners occupy 85% of the accommodations and only 15% are available for rental.¹ The rental market is crippled by an over protecting regulation for tenants.² This regulation prevents people to buy flats in order to rent them. There is a paradox about housing in Spain: the Spanish economy has produced a lot of accommodations but young people stay for a very long time with their parents because there are not enough accommodations available for rent, and the ownership is not affordable for them. The housing bubble has prospered on a speculative behavior. Spaniards bought accommodations in order to sell them after and to get a value added by the increasing market prices. These expectations on the increase in prices were only validated during the first part of the cycle. This crisis is cruelly ironic: in spite of an over production on the housing market, there is always a crisis on the lack of accommodation. The weakness of the rental market is due to institutional factors that have not been modified.

A. Macroeconomic Environment: Interest Rates and Real Exchange Rate

The first cause of the crisis is the divergence between productivity gains inside the euro zone. Spanish economy lose its price competitiveness so non-tradable goods industries appeared to be more profitable than tradable goods industries. The lack of competitiveness is clearly showed by the OECD statistics. Between 1995 and 2008, inflation was higher in Spain than in Germany. The pace of the Spanish inflation was two times higher than the German's one. Moreover, even if the growth of the Spanish GDP seems to be superior to the German GDP, a large part of the Spanish growth is an illusion. The Spanish GDP depends on the housing market, and there is no sustainable growth when an economy produces services or products with no real demand. Last but not least, Spanish productivity gains are near zero but wages costs increased by 50%. During the same period Germany increased its productivity by 25% and the wages costs only by 2% (see Figure 1). This grossly statement hides a worse reality, because the Spanish economy had mainly created growth in non-tradable goods industries where there are no productivity gains. The illustrations of macroeconomic divergences are sum up in Figure 1.

Figure 1

Inflation, GDP, productivity and wage costs: the main changes in the Euro zone 1995-2008 (data from OECD)



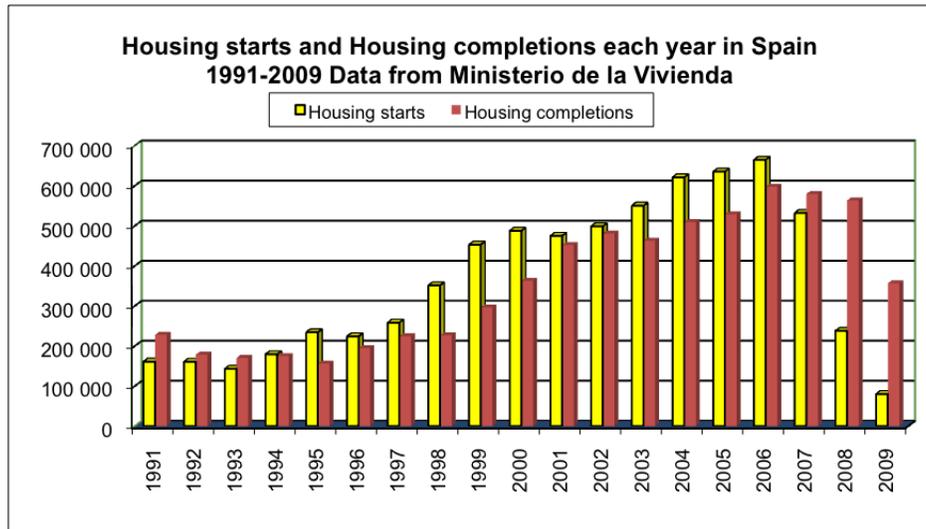
The second cause is the cheap money policy. Spain has enjoyed a long period of very low interest rate. The interest rate has stimulated the supply side of the housing market by reducing the financing costs of the condominiums projects. On the demand side, the low interest rate has encouraged households to go on debt. Spanish households had borrowed massively on variable interest rate loans. 98% of the loans are with variable interest rate, and the private Spanish debt represented 64.6 % of the GDP in 2009,³ against 31.6 % in 2001.⁴ Spanish households are in a financial predicament, because they are trapped between increasing repayments of loans (due to higher interest rates), falling houses prices and massive unemployment.

This house bubble has flourished because the traditional adjustment mechanisms were prevented to act. The euro zone prevented Spain to devalue the money to restore external competitiveness reduced by wages inflation. The low interest rate was disconnected from the real risk of overheating of the Spanish economy. With an autonomous monetary policy the interest rate would have been raised sooner to prevent the assets inflation. So the macroeconomic causes of the crisis have facilitated the construction speculation. Moreover, on fiscal side, this asset inflation was very welcome by Spanish authorities (local, regional and national) because it has generated a lot of taxes (tax on value added on new construction and taxes on houses sales). The apparent fiscal equilibrium of the Spanish budget during the 2000-2007 periods is mainly due to the tax paid on the housing market. This situation has last till 2007, when several facts had changed. First the interest rates started to increase, then several corruption scandals around housing projects appeared and Spanish people began to discover that some of the condominiums have been built in the middle of nowhere, with sometime no access to water and generally with no real demand to live in these towns.

B. The Specificities of the Spanish Housing Market

Spanish housing market has known a fluctuation not only on a nominal basis with asset price inflation, but there was a real consequence on the number of construction. Spanish economy has increased the quantity of accommodations produced every year and there is now a large stock of empty houses. The Spanish population has increased by 13% between 2001 and 2008, and the total amount of accommodation has increased by 20%. Demographic indicators do not explain this difference: there was 5.5 million of new accommodation constructed but only 3.5 million of new households has appeared between 1997 and 2006.⁵ During the same period the number of new accommodations increased from 200,000 to merely 600,000 each years (see Figure 2). The market for new accommodation was already saturated in 2006, but 2007 and 2008 added 1.2 million of new dwellings. The paradox of this over production is that it did not solve the much stressed situation on the housing market. This situation is due to the fact that a large part of these new accommodations were built for tourism or for holiday homes buyers. Spain has a ratio of 164 holiday homes for 1,000 inhabitants higher than the European average around 72 holiday homes for 1,000 inhabitants.⁶ But the main feature of this over production is that Spanish entrepreneurs has build condominiums in places with no demand because there is no job, or not enough water available, or no means to get easily to a center of interest. At the same time, old constructions built during the Franco era, are not rehabilitated. In spite of their good localization, these old buildings lose their occupants. All these elements contributed to maintain a scarcity for the

Figure 2
Housing starts, housing completions in Spain, 1991-2009



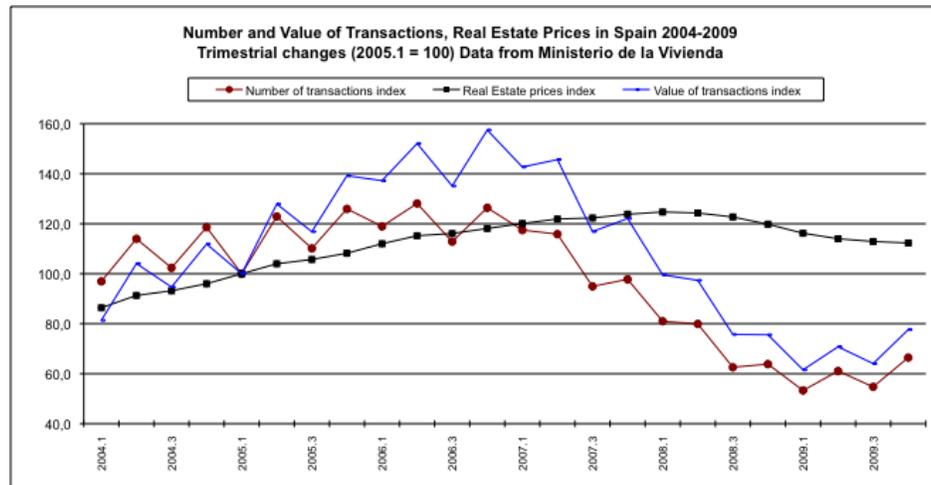
accommodations really demanded by the market. So the prices had continuously increased till 2006, especially due to a demand sustained by cheap interest rates.

C. The Main Facts of the Housing Crisis

Housing prices had increased by 50% between 2001 and 2006 (see Figure 3). The prices seemed to increase till mid 2008, but the market has already plummeted. In fact, the number of transactions drop and the value of the transaction felt down since 2006. The lag between prices and the number of transactions has two significations: first the market started to plummet on large surface accommodation and then the transactions are only made with smaller surface accommodation. When the prices are too high for the households the demand simply disappears. This phenomenon always starts with the largest housing surfaces because it demands the largest budget to buy them, so these largest surfaces are the first stricken by the vanishing demand. The second feature is the resistance to the falling prices from the owners. Prices have remained relatively stable during 2007 and 2008, and they started to drop in 2009. This resistance is due to the fact that Spanish owners bought accommodation in order to speculate on increasing prices. They did not buy for occupy or for rental. If they have enough liquidity to pay the loan, they can wait some time with the secret hope to sell at the expected price. This situation will change with time and the level of interest rates. An increase in interest rate will increase the value of the repayments, and then will motivate owners to accept diminishing prices.

Figure 3

Number of transactions, value of transactions and real estate prices in Spain, 2004-2009



III. SPANISH BANKS AND DOUBTFUL LOANS

The last official data published by Spanish authorities in March 2011 on the doubtful loan rate was 6.2%. It means that 6.2% of the loans granted are doubtful, but the Spanish authorities only consider the doubtful loans from households. There are also doubtful loans from financing the supply side of the economy, especially construction and real estate services. The risk of doubtful loans is very difficult to evaluate. The classification “doubtful loans” is never a good sign for the banks, but some doubtful loans may be pay back completely and some will not be paid back at all. Between these two extremes there are plenty of cases where the doubtful loans will be partially paid back. There is no available information on the potential real losses that the banks will suffer on doubtful loans. Anyway we try to give a more realistic evaluation of the quantity of the doubtful loans, and the potential risk by comparing the amount of doubtful loans with bank’s equity capital.

The rate of doubtful loans on the total amount of credit is simply calculated by the ratio:

$$\text{Rate of doubtful loans} = \frac{\text{Amount of doubtful loans}}{\text{Total amount of credit}}$$

A. Doubtful Loans from Financing Productive Activities

During the 2005-2007 period, the contribution of the construction and real estate sectors to the doubtful loans had no real significance. Since 2008, these sectors had a real contribution, and for 2010, they gave a third of the total of doubtful loans. It should not be forgotten to evaluate the exposition to the risk of the bank.

Table 1
Rates of doubtful loans among the total amount of credit (data from Banco de España)

Years	Rate of doubtful loans in construction sector	Rate of doubtful loans in real estate sector	Total rate of doubtful loans in construction and real estate sector	Rate of doubtful loans in other productive activities sectors	Total rate of doubtful loans financing productive activities
2005	0.1%	0.1%	0.2%	0.3%	0.4%
2006	0.0%	0.0%	0.1%	0.3%	0.3%
2007	0.1%	0.1%	0.2%	0.2%	0.4%
2008	0.4%	1.0%	1.4%	0.6%	2.0%
2009	0.6%	1.8%	2.4%	1.0%	3.4%
2010	0.8%	2.4%	3.2%	1.2%	4.3%

B. Doubtful Loans from Financing Household

The effects of the crisis appear after 2007. The data presented here are the data used by authority to measure the risk exposition of the banking system. The increase of bad loans is the direct consequences of the collapse of the housing market. There is a lag between the two phenomena. The crisis on the housing market started in 2007, but the bad loans accumulation had began between 12 and 18 months later.

Table 2
Rate of household doubtful loans among the total amount of credit (data from Banco de España)

Years	Households Doubtful Debtors
2005	0.8%
2006	0.7%
2007	0.9%
2008	3.4%
2009	5.1%
2010	5.8%
2011	6.2%

C. Evaluation of the Risks

The analysis of the risks born by Spanish banks shows two main features. First, the contribution of the housing market activities (financing construction, real estate and households) to the doubtful loans represents around 85-90% of the total amount of the doubtful loans. This share increases from 73% in 2005 to 88% in 2010. There is an increase of the quantity of doubtful loans in real and relative value. Between 2005 and 2010, the total amount of credit is multiplied by 1.5, the amount of doubtful loans in all housing activities by 15 (in construction sector by 19 and real estate sector by 71).

Table 3
Changes in doubtful loans 2005=100 (data from Banco de España)

Years	Total credit	Doubtful loans Households	Doubtful loans Construction	Doubtful loans Real Estate	Total doubtful loans Housing
2005	100	100	100	100	100
2006	125	113	86	112	111
2007	146	169	154	260	173
2008	155	655	1032	3157	820
2009	152	969	1531	5292	1248
2010	153	1113	1920	7177	1506

This increasing risk must be put in perspective with the change of the structure of lending since 2002. Between 2002 and 2007, the total amount of loans made to finance productive activities (nearly everything but loans to households) had increased by 2.5. The amount of loans to the construction sector increased by 2.7 and for the real estate by 5.6. This is the bank side of the housing crisis.

The second feature given by the risk analysis shows the critical incidence of this accumulation of doubtful loans. Spanish banking system is facing a financial predicament. The doubtful loans represent in 2010 more than 130% of the equity capital and more than 8% of the total assets of the Spanish banking system. Here again, the data show a collapse since 2008. Anyway, these data should be interpreted very carefully because there is not available information on the reality of doubtful loans. First, the amount of doubtful loans can be misevaluated. Second, there is no information on the percentage of the losses really supported by the banks, because some of the doubtful loans will be repaid, and some will be partially repaid. So if the figure of 130 % is a very striking figure the reality could be different.

Table 4
Equity capital, total assets and doubtful loans (data from Banco de España)

Years	Doubtful loans in % of Spanish banks' equity capital	Doubtful loans in % of Spanish banks' total assets
2005	21,87%	0,99%
2006	19,96%	1,00%
2007	22,53%	1,27%
2008	85,64%	4,94%
2009	120,31%	7,34%
2010	130,99%	8,34%

Nevertheless, some external indications show that the Spanish banks will have very great difficulties to be paid back. Some of constructions have been built in areas with no real demand. There are numerous areas in Spain with empty flats, and no hope to rent or to sell them. The loans that had financed this type of housing will be never paid back. Moreover, the crisis has completely stopped the Spanish economy, and put nearly 20% of the workforce on unemployment. The households will be facing difficulties to pay back their loans. The mortgage loans were contracted with variable interest rates. The end of the cheap money period is increasing interest rates. The consequence of higher interest rates is to increase the difficulties of the households to pay their loans.

IV. CONCLUSION

The Spanish economy is in a dire predicament and the factors that crippled the economy have not been removed and will last for a long time. Unfortunately the Spanish crisis scenario is more prone to be like the Japanese long lasting crisis since 1989 than a fast recovery scenario. Spanish authorities' agenda should focus on two main issues. First they have to reform the housing market in order to restore the mobility of the workforce. There are several measures that could ease the transactions on the housing market such as reducing protective regulation on the tenants or diminishing the transaction costs (taxes), which are among the higher in Europe. Also more housing disposable for rental would increase the mobility of the workforce and reduce the unemployment rate.

The second issue concerns the risk of default of the banking system. The accumulation of doubtful loans may lead to a recapitalization of the banks. Nevertheless, there is a narrow path between saving the banking system and delaying the necessary adjustment. The bubble has not completely exploded and for now the market adjustment has been made on quantities and not on prices. Housing prices have not decreased enough and saving the banking system could make the crisis during longer. Saving the banks with no counterparty will lead to validate false expectations on the housing market and will delay the adjustment.

ENDNOTES

1. European Mortgage Federation (2010), p. 56.
2. Charlotte Vorms (2009) explains that it takes 6 months in Barcelona and between 15 and 18 months in Madrid to make effective an eviction procedure.
3. European Mortgage Federation (2010), p. 56.
4. European Mortgage Federation (2003), Chapter 2.
5. Data were obtained from Ministerio de la Vivienda.
6. See Martínez et. al. (2006).

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