Real Estate Watch

Second half 2009

– December 2009 -

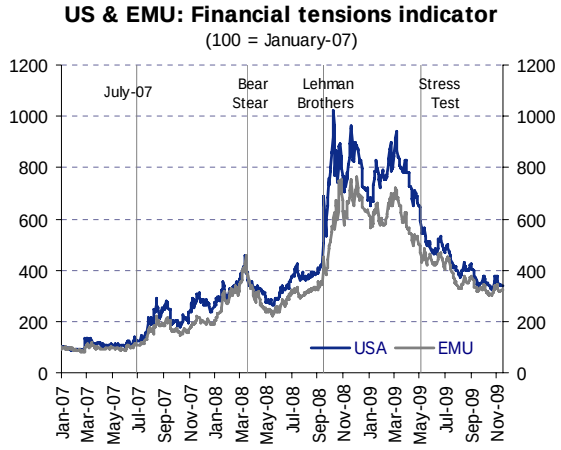
- Global **economic perspectives are improving**, although uncertainty about the recovery is significant, especially in the developed economies
- The **adjustments** that the Spanish economy is facing condition its recovery in the short term. In 2010 there will be a significant improvement in comparison with 2009, although the economic activity will continue to shrink
- In the real estate sector, **residential activity shows great flexibility**, adjusting according to the sector need to reduce the housing overhang in the market. However, **non-residential activity**, supported mostly by public intervention, is yet to show significant signs of adjustment
- **House prices have not completed their adjustment process**: despite the slight improving signs observed during the summer months, the imbalance in the market is still significant. The cumulative adjustment **from peak should reach about -30% in real terms**
- **Residential remodeling** and growth originated in **other sectors** could act as support factors to the construction sector
- The evolution of **demographic variables** and some structural characteristics of the Spanish real estate market could imply a **potential housing demand of about 400,000** units per year

Summary:

1. **Global economic perspectives are improving, although uncertainty about the recovery is significant, especially in the developed economies**
2. In Spain, pending imbalances and the need to reduce the leverage in some key sectors affect the beginning of the recovery
3. The real estate sector, despite the correction experienced so far, has not bottomed out yet and calls for further price adjustments
4. Residential remodeling and growth in other sectors of the economy could support the market in the short term
5. After the adjustment is completed, the estimated potential demand of about 400,000 units will support the market in the long term

Financial markets: progressive stabilization, but still dependent

Financial tensions have decreased substantially during the latest months



Source: BBVA ERD

First standardized principal component of the OIS spread, implicit volatility in the NYSE, banking CDS and corporate CDS

Nevertheless, the **evolution of the markets continues to depend greatly on massive injections of liquidity by central banks**

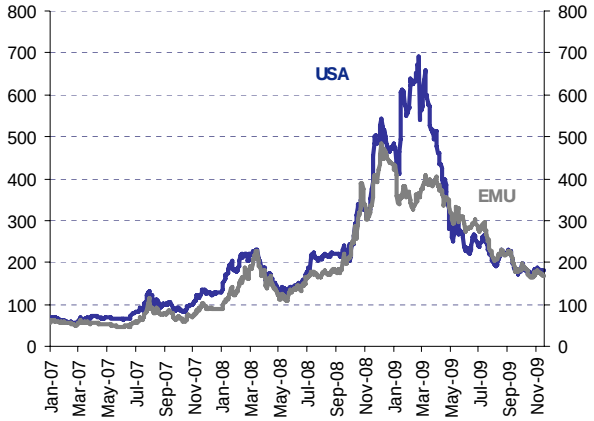
Financial markets: progressive stabilization, but still dependent

Bank and corporate risk premia continue to be **stable** since the summer,...

Bank's credit risk: CDS 5 yr Senior Debt
(bp)

Source: Bloomberg

US & EMU: Corporate risk premium
(5 year corporate CDS , bp)



Source: Datastream

... although still much **higher than before the crisis**

Global economic perspectives are improving

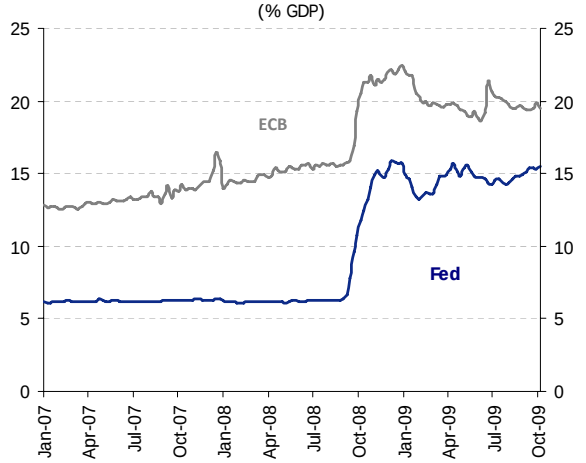
Financial markets: progressive stabilization, but still dependent

Liquidity **premia** have **stabilized** thanks to injections from the central banks

US & EMU: 3M OIS spread
(3M LIBOR-3M OIS)

Source: BBVA ERD

Central banks: total assets
(% GDP)

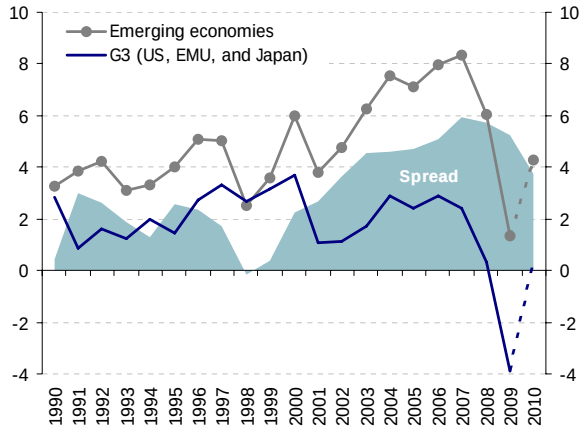


Source: Datastream

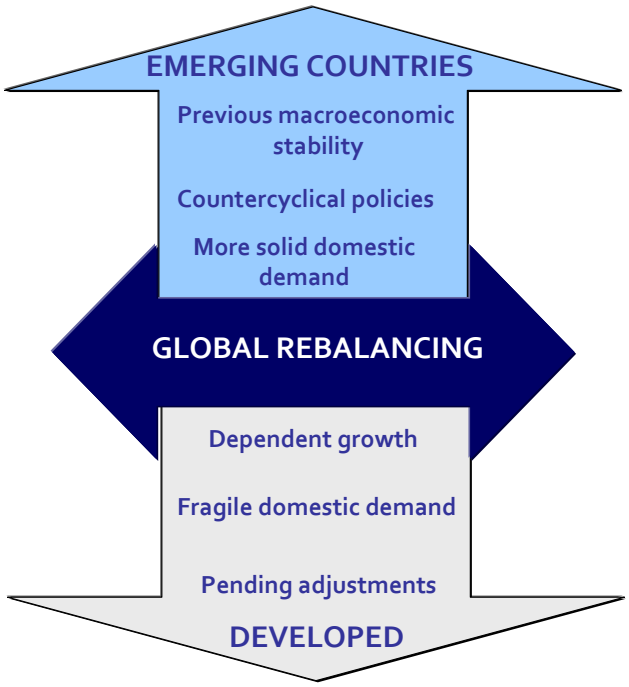
Macroeconomic analysis: decoupling between developed and emerging economies

The **emerging economies** are becoming the **new motor of global growth**

Emerging economies & G3: GDP growth
(% y-o-y)



Source: BBVA ERD



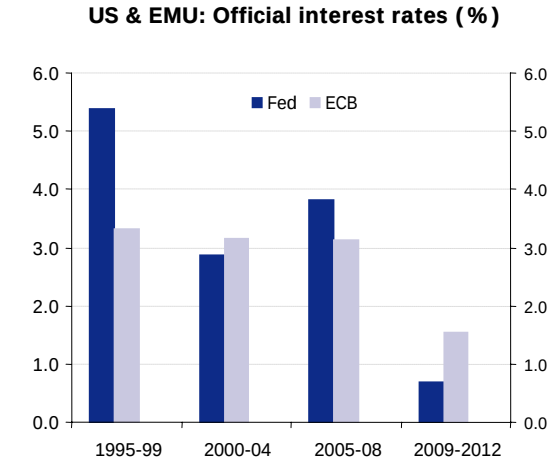
Exit strategies

Monetary and fiscal policies	Keys for elimination	Current diagnosis	Expectations
Temporary Need to start being phased out	Economic Growth	Wide negative breach	No hurry to raise interest rates
	Inflationary pressures	Scarce	
	Emerging exchange rate appreciations	Significant	
	Market normalization	Liquidity-dependent	Gradual elimination of non-standard policy measures
Short-term profits and long-term costs	Unsustainability of public debt	Partial signals in sovereign spread	Need to generate signs of fiscal consolidation, but not its execution

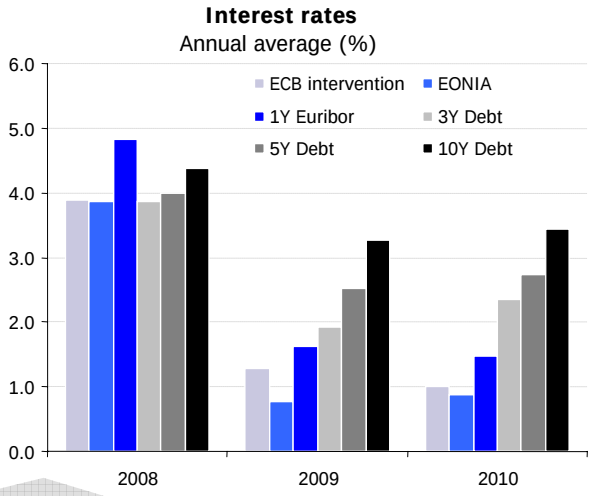
Exit strategies

No hurry to raise interest rates

The process of increasing policy rates will not begin until the exceptional measures that have been implemented are withdrawn



Source: BBVA ERD based on Bloomberg



Source: BBVA ERD

Summary:

1. **Global economic perspectives are improving, although uncertainty about the recovery is significant, especially in the developed economies**
2. In Spain, pending imbalances and the need to reduce the leverage in some key sectors affect the beginning of the recovery
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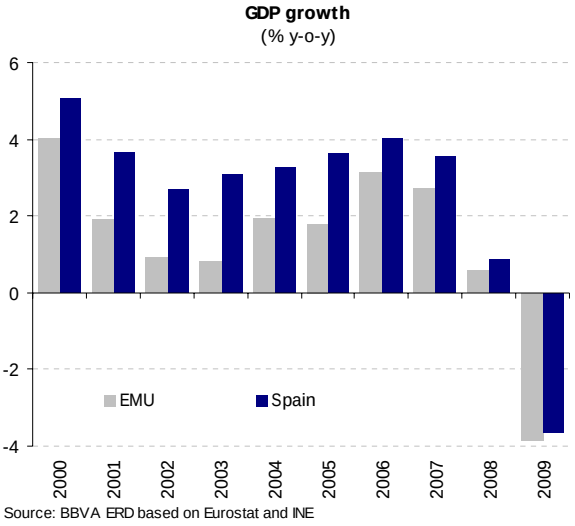
In Spain, pending imbalances and the need to reduce the leverage in some key sectors affect the beginning of the recovery

Spain: a contraction in 2009 similar to the EMU



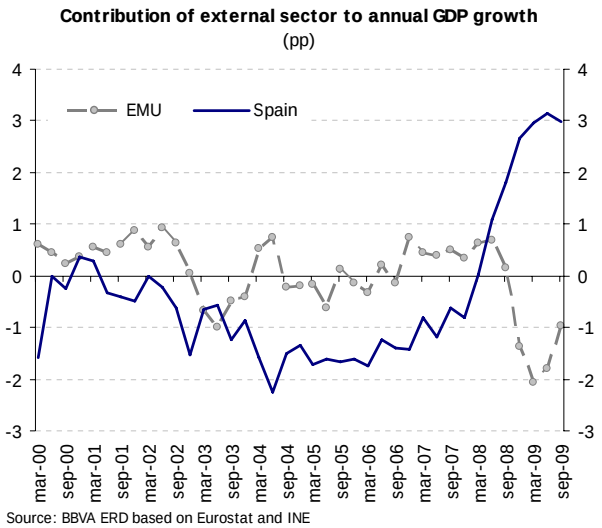
Source: BBVA ERD based on Eurostat and INE

Net foreign demand and fiscal stimulus have compensated for the serious drop in Spanish domestic demand

In Spain, pending imbalances and the need to reduce the leverage in some key sectors affect the beginning of the recovery

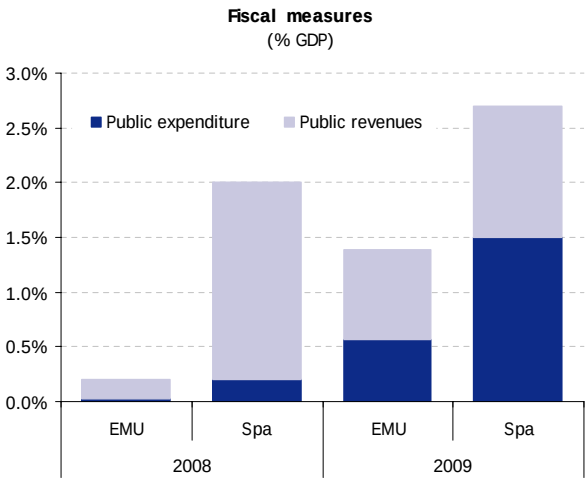
Spain: a contraction in 2009 similar to the EMU

The **strong decline in imports** has resulted in a positive net contribution of foreign demand to the GDP,...



Source: BBVA ERD based on Eurostat and INE

..., while **the fiscal stimulus**, considerably greater than in Europe, has contributed to a moderation of the decline in activity



Source: BBVA ERD

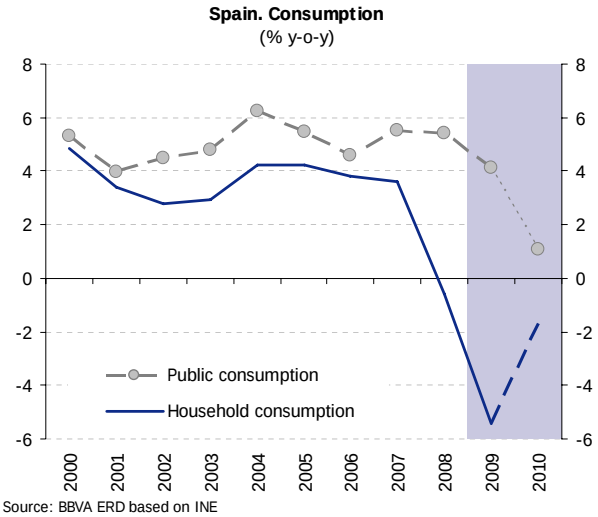
In Spain, pending imbalances and the need to reduce the leverage in some key sectors affect the beginning of the recovery

…, with a slow recovery in the short term …

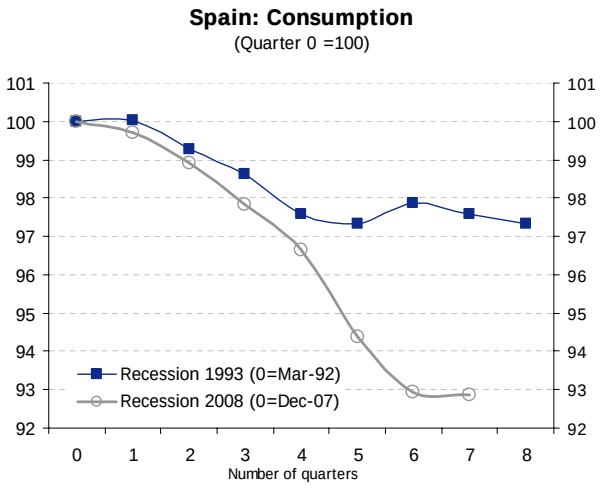
Source: INE; BBVA ERD.

In Spain, pending imbalances and the need to reduce the leverage in some key sectors affect the beginning of the recovery

…, as private consumption remains weak



Source: BBVA ERD based on INE



Source: BBVA ERD based on INE data.

The **weakness in private consumption and the slowdown in public consumption growth** will condition the evolution of expenditure during 2010

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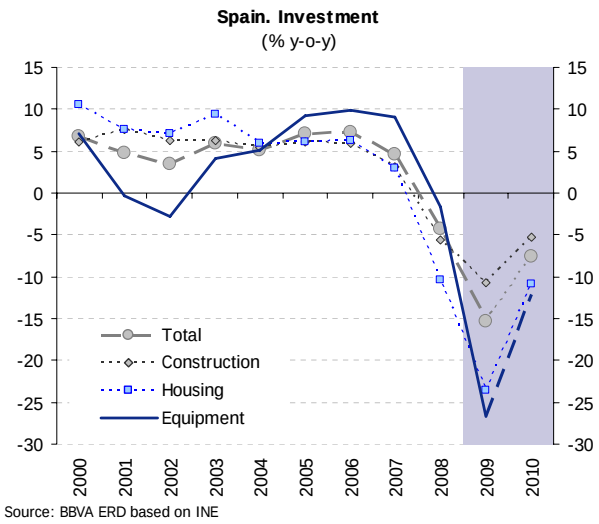
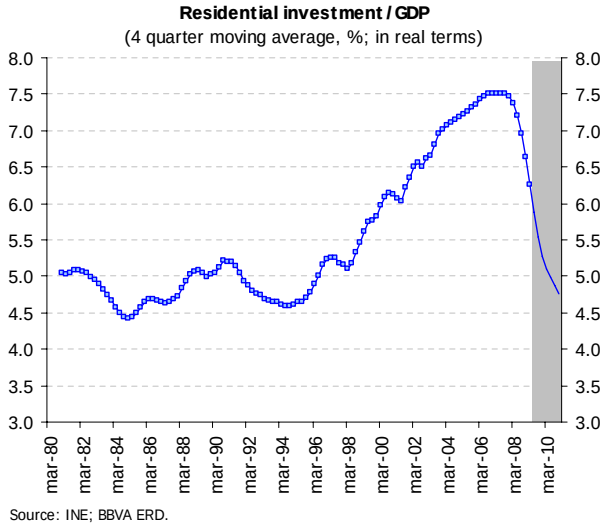
The real estate sector, despite the correction experienced so far, has not bottomed out yet and calls for further price adjustments

The correction in residential investment has been so far the most relevant



Source: BBVA ERD based on INE



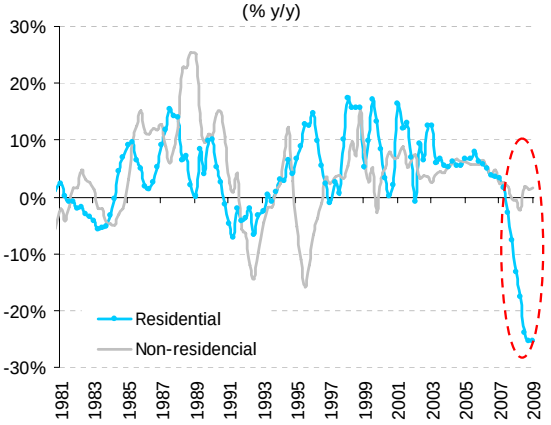
Source: INE; BBVA ERD.

The adjustment produced in the construction sector so far has been significant

The real estate sector, despite the correction experienced so far, has not bottomed out yet and calls for further price adjustments

The correction in residential investment has been so far the most relevant

Spain: construction investment
(% y/y)



Source: INE; BBVA ERD.

Spain: Distribution of the construction industry (%)

Source: SEOPAN.

The contraction in residential investment has been more pronounced than in the non-residential segment…

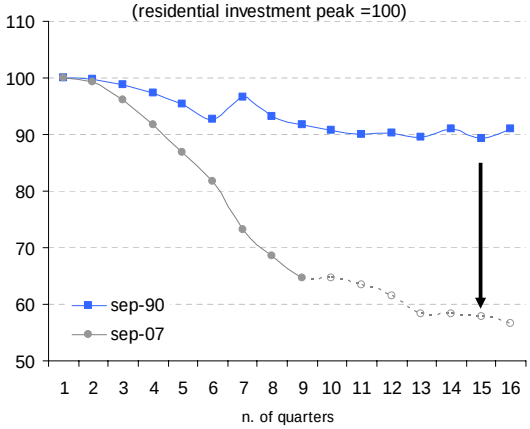
… as it was the sub-sector which grew the most during the latest expansionary phase

The real estate sector, despite the correction experienced so far, has not bottomed out yet and calls for further price adjustments

The correction in residential investment has been so far the most relevant

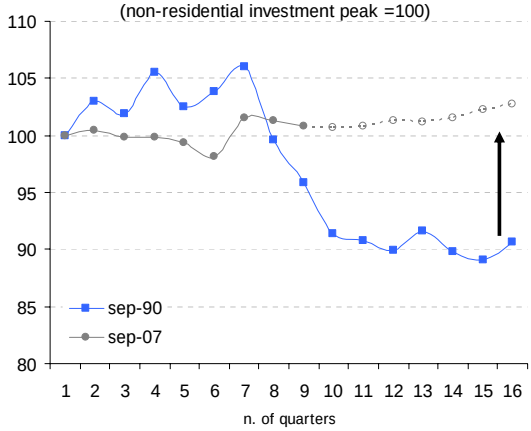
If compared with the previous real estate cycle, non-residential investment has barely adjusted

Spain: residential investment adjustments during the last two cycles
(residential investment peak =100)



Source: BBVA ERD.

Spain: non-residential investment adjustments during the last two cycles
(non-residential investment peak =100)



Source: BBVA ERD.

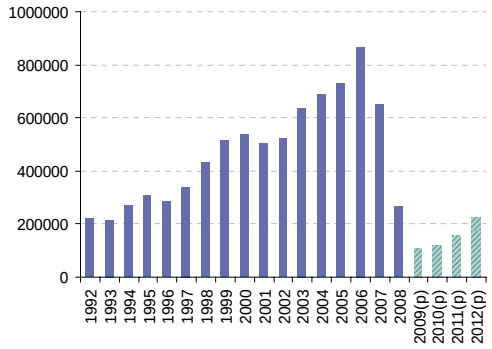
This behavior can partially be explained by the support provided by public intervention. However, on a private investment basis, the non-residential sector is contracting

The real estate sector, despite the correction experienced so far, has not bottomed out yet and calls for further price adjustments

The adjustment in the housing market in Spain has not bottomed out yet. Three important factors can help explaining why:

1 The stock of unsold houses is still significant

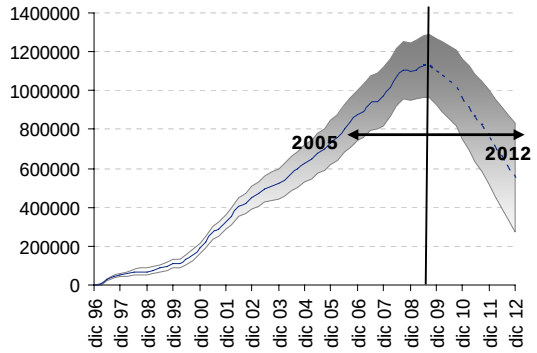
Spain: building permits, new homes
annual sums



Source: Ministry of Public Works, BBVA ERD.

Supply of new homes has shown significant flexibility, reaching quickly minimum historical levels

Spain: Housing over supply estimation



Source: SEE BBVA

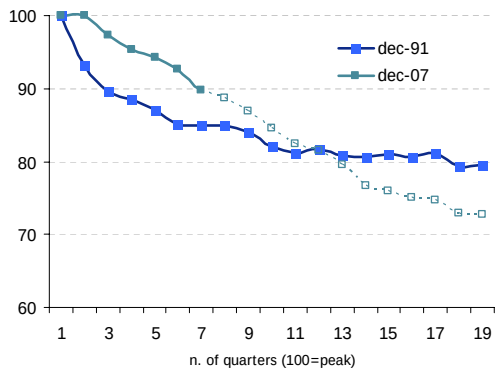
This has helped slowing down the accumulation of oversupply in the market, that in any case is still significant, and pushes house prices down.

The real estate sector, despite the correction experienced so far, has not bottomed out yet and calls for further price adjustments

The adjustment in the housing market in Spain has not bottomed out yet. Three important factors can help explaining why:

2 In comparison with other cycles, house prices have not declined sufficiently

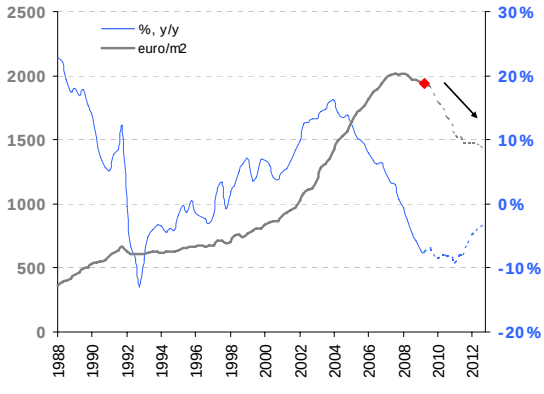
Spain: real house price cycles



Source: Ministry of Housing; BBVA ERD.

During this cycle, real house prices declined about 10% from peak, less than observed during the cycle of the nineties.

Spain: real house prices



Source: Ministry of Housing; BBVA ERD.

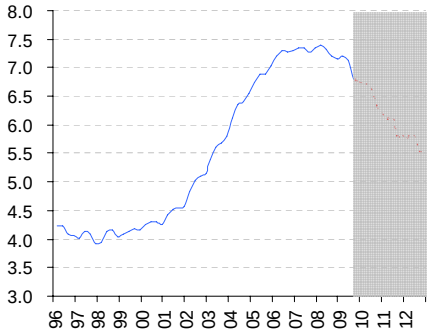
According to our estimates, the total adjustment from peak should reach a cumulative decline of about 30%

The real estate sector, despite the correction experienced so far, has not bottomed out yet and calls for further price adjustments

The adjustment in the housing market in Spain has not bottomed out yet. Three important factors can help explaining why:

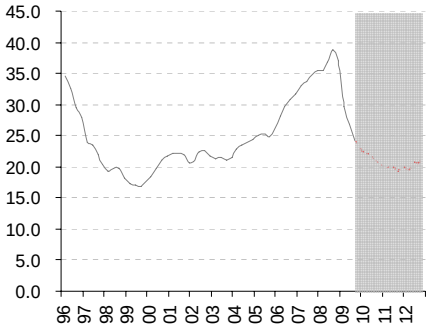
3 In terms of income, affordability has not improved significantly

Spain: Housing affordability
Price/Income ratio



Source: BBVA ERD.

Spain: Housing affordability
Tax-adjusted purchase effort as a % of household income



Source: BBVA ERD.

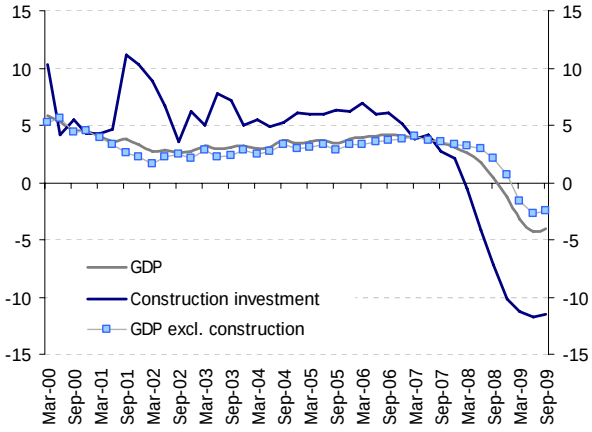
Without taking into account the interest rate decline, the improvement in the affordability ratio has been modest. Besides, given the negative confidence environment, housing demand has not recovered yet.

The real estate sector, despite the correction experienced so far, has not bottomed out yet and calls for further price adjustments

The deterioration in construction activity in Spain is materializing in a significant decline in labor demand from the sector

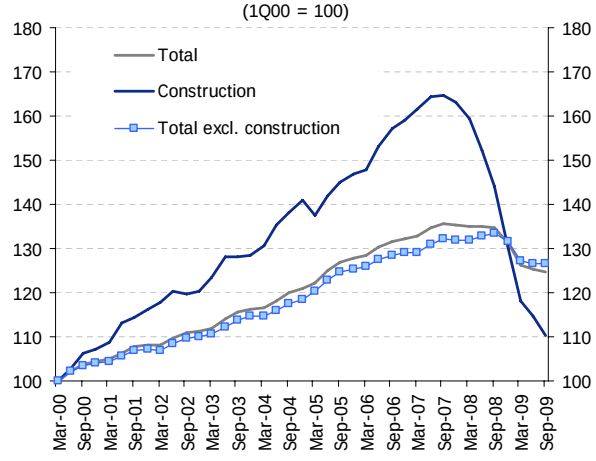
…which actually produced an intense employment reduction

Spain: GDP, construction and housing (% y / y)



Source: INE; BBVA ERD.

Spain: Cumulative employment growth
(1Q00 = 100)



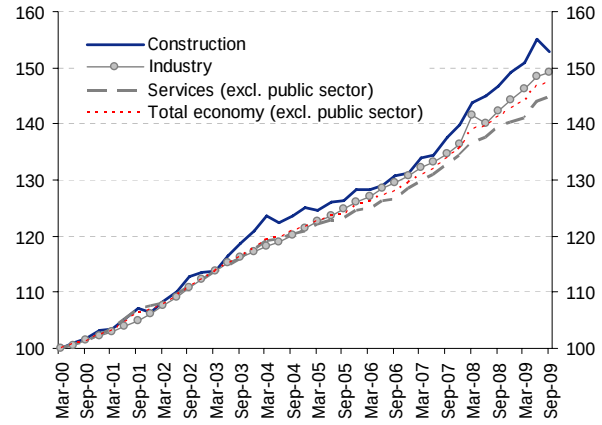
Source: INE; BBVA ERD.

The real estate sector, despite the correction experienced so far, has not bottomed out yet and calls for further price adjustments

The deterioration in construction activity in Spain is materializing in a significant decline in labor demand from the sector

…, but not a moderation in wages

Spain: total labor cost growth
(seasonally and calendar adjusted series; 1Q00 = 100)



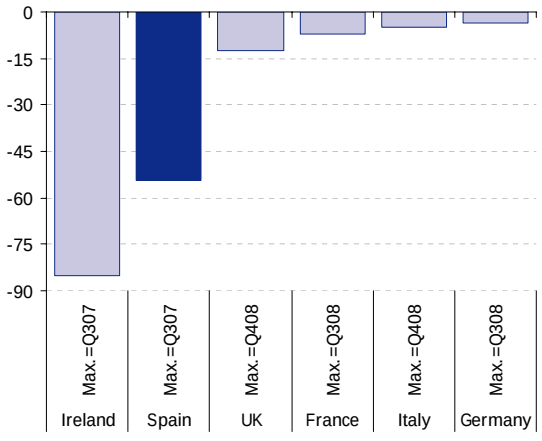
Source: Eurostat (ICLA); BBVA ERD.

The real estate sector, despite the correction experienced so far, has not bottomed out yet and calls for further price adjustments

The deterioration in construction activity in Spain is materializing in a significant decline in labor demand from the sector

Only Ireland shows a comparable job destruction to Spain during the current cycle…

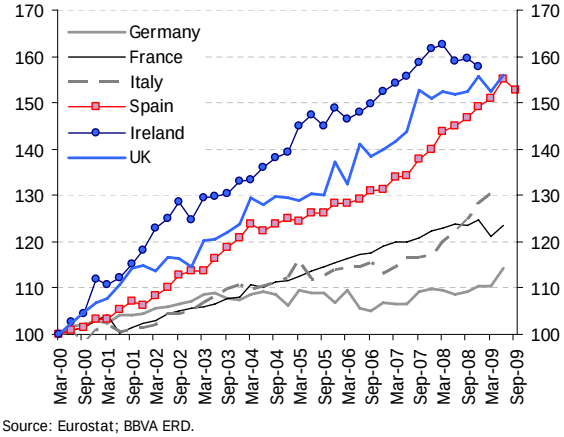
Accumulated job destruction from peak (%)



Source: Eurostat (ICLA); BBVA ERD.

…, however, only in Spain wages responded with some lag with respect to the deterioration of the sector

Total labor cost growth: construction sector
(seasonally and calendar adjusted series)



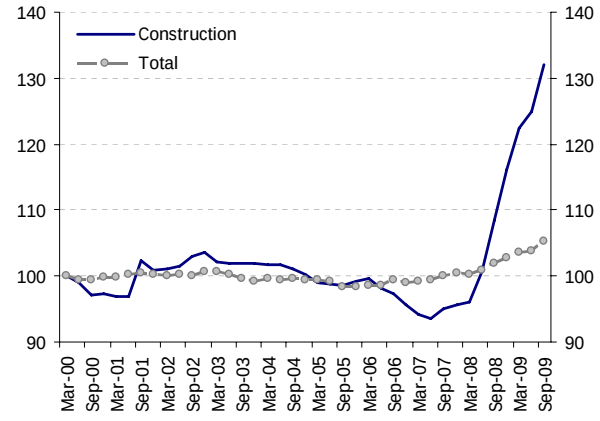
Source: Eurostat; BBVA ERD.

The real estate sector, despite the correction experienced so far, has not bottomed out yet and calls for further price adjustments

The deterioration in construction activity in Spain is materializing in a significant decline in labor demand from the sector

Wage stickiness, and especially the change in the **composition of workers in the construction sector** – due to low productivity and worse remunerated job losses- are the main factors accountable for the **recent salary dynamics**

Spain: Accumulated labor productivity growth
(1Q00 = 100)



(*) Real Gross Value Addedl/n. of workers
Source: Eurostat; BBVA ERD.

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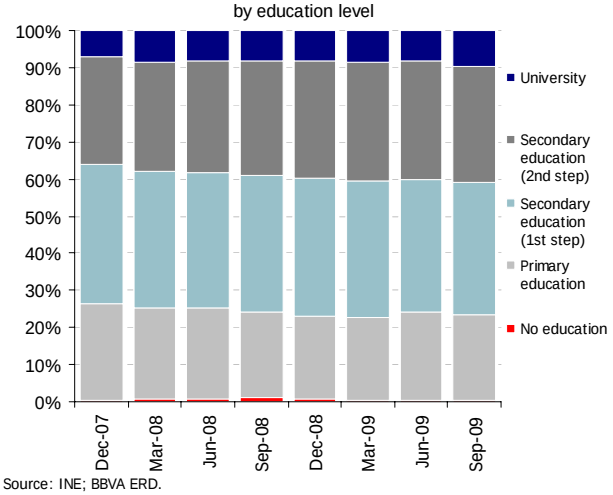
The deterioration in construction activity in Spain is materializing in a significant decline in labor demand from the sector

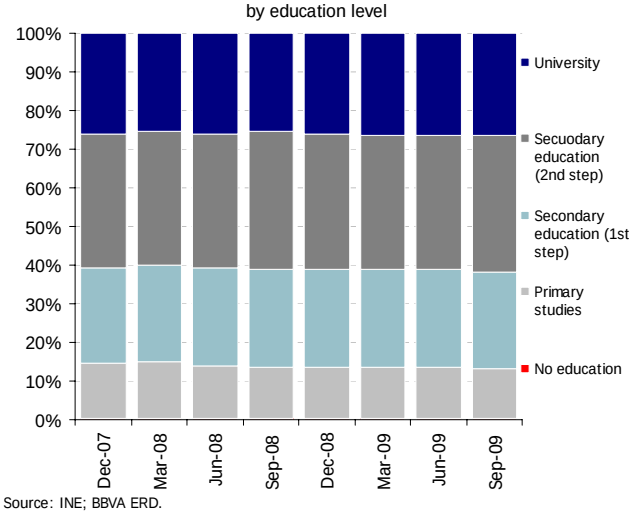
The weight of construction workers with secondary and university studies rose 4.8 pp from the end of 2007 reaching 40.8% in the 3Q of 2009, with respect to an increase of only 1.2 pp in the rest of the economy

Spain: employment composition in the construction sector
by education level



Source: INE; BBVA ERD.

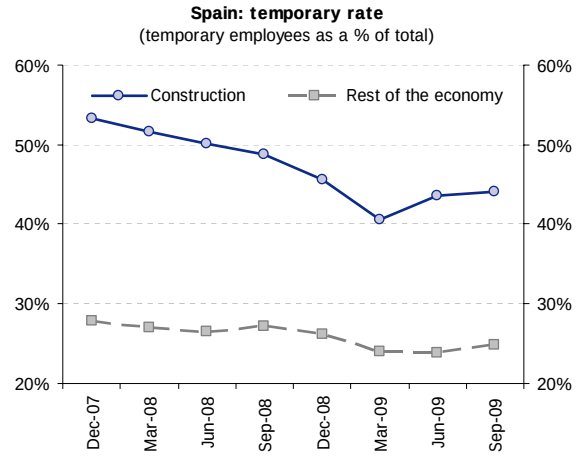
Spain: employment composition in the rest of the economy
by education level



Source: INE; BBVA ERD.

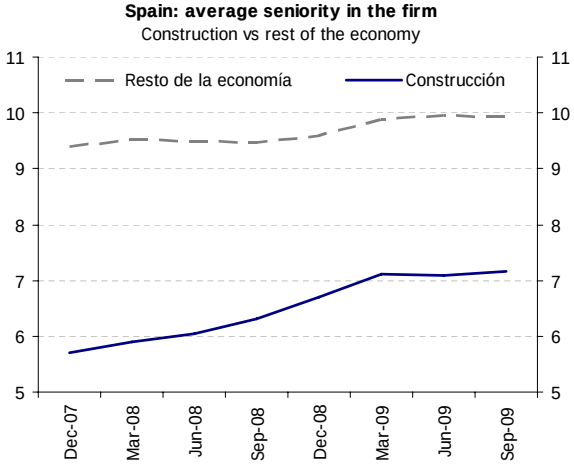
The deterioration in construction activity in Spain is materializing in a significant decline in labor demand from the sector

The temporary rate for employment in the construction sector declined significantly more (-9.3 pp) than in the rest of the economy (-3.0 pp)



Source: INE; BBVA ERD.

Average seniority of workers in the construction industry rose about 25.3% between the 4Q07 and the 3Q08, reaching an average of 7.2 years. The increase in the rest of the economy was much more contained (5.3%)



Source: INE; BBVA ERD.

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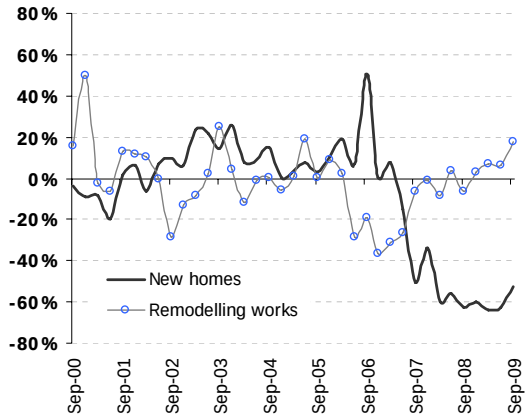
Residential remodeling and growth in other sectors of the economy could support the market in the short term

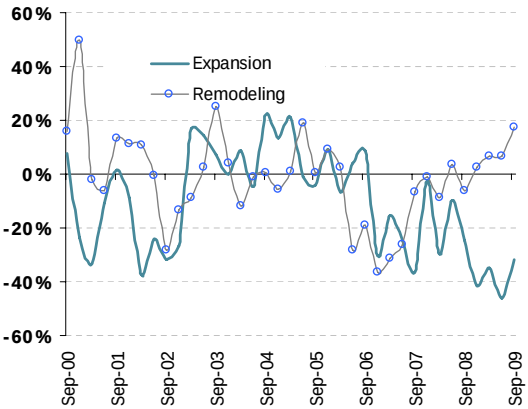
Building remodeling activity could help the sector recovery in the future

Spain: building permits
(% y/y quarterly moving average)



Source: Ministry of Public Works; BBVA ERD.

Spain: remodeling and expansion permis
(% y/y quarterly moving average)



Source: Ministry of Public Works; BBVA ERD.

Although the adjustment in construction activity deepened, remodeling works are reacting positively

Residential remodeling and growth in other sectors of the economy could support the market in the short term

The positive evolution in remodeling activity will contribute to a more "sustainable" transformation of the real estate sector also aided by government policies

➢ **HOUSING AND REDEVELOPMENT PLAN 2009-2012:** it aims on the one hand to rehabilitate urban centres and rural areas; on the hand, it promotes housing energy efficiency

Measures: protected loans; loan subsidies

➢ **BILL FOR A SUSTAINABLE ECONOMY:** support building remodeling activity in accordance with the sustainability of the economy

Measures:

- New tax relief for works aimed at improving energy efficiency (10%)
- Reduced VAT for works that reduce energy consumption, water and improve accessibility

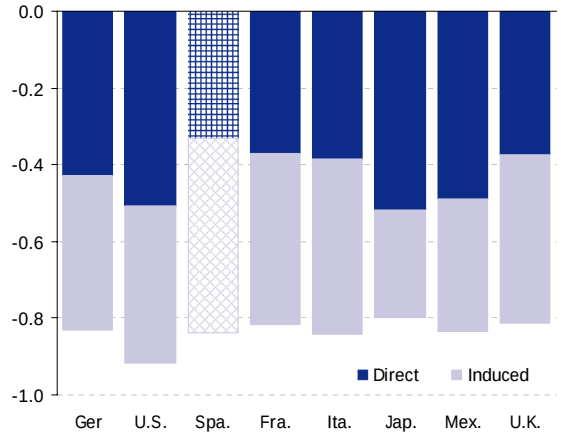
Rehabilitation and remodeling activity combine intense use of labor with low environmental impact

Residential remodeling and growth in other sectors of the economy could support the market in the short term

Given the relevance of the dragging effects of the sector towards other industries, the correction experienced so far is having relatively high impact on the rest of the economy

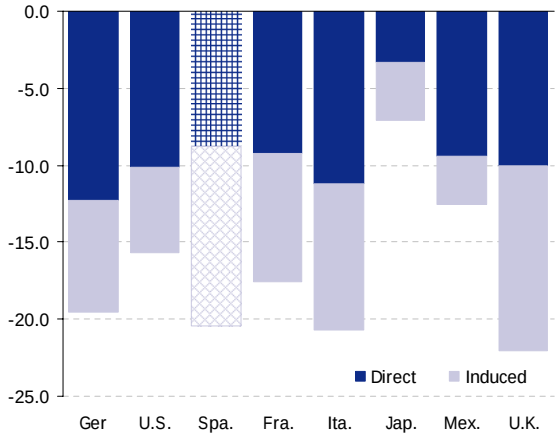
The analysis of these effects detects some **homogeneity** with regards to the **magnitude** of the effects the construction industry has towards the production activity in the remaining sectors of the economy…

Effects on GVA in each economy of 1 million c.u. decrease in final demand for each industry. Domestic I-O Tables



Source: BBVA ERD based on OECD

Effects on employment in each economy of 1 million c.u. decrease in final demand for each industry. Domestic I-O Tables



Source: BBVA ERD based on OECD

Residential remodeling and growth in other sectors of the economy could support the market in the short term

Given the relevance of the dragging effects of the sector towards other industries, the correction experienced so far is having relatively high impact on the rest of the economy

…, as well as towards the **type** of sectors affected

Construction. Backward linkages (main sectors)

	Germany	U.S.	Spain	France	Italy	Japan	Mexico	U.K.
Other non-metallic mineral products	1st	6th	1st	3rd	1st	4th	2nd	4th
Wholesale and retail trade	3rd	1st	3rd	4th	2nd	1st	1st	2nd
Other business activities	2nd	1st	4th	1st	3rd	2nd	6th	1st
Fabricated metal products, except machinery and equipment	5th	3rd	2nd	5th	4th	3rd	8th	6th
Finance and insurance	7th	5th	9th	2nd	6th	6th	18th	3rd

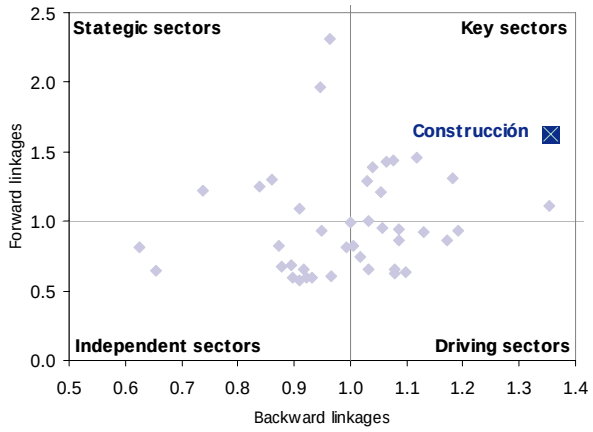
(*) 42 ISIC branches in Germany, U.S., Spain, France, Italy, Japan, and U. K.; 77 NAICS branches in Mexico

Source: BBVA ERD

Given the relevance of the dragging effects of the sector towards other industries, the correction experienced so far is having relatively high impact on the rest of the economy

The measurement of the ability of each sector to benefit from an increase in demand suggests that the **construction sector will be amongst those that will benefit the most** from a future upturn in demand

Characterization of each sector according to its backward and forward linkages. Rasmussen indices



Source: BBVA ERD

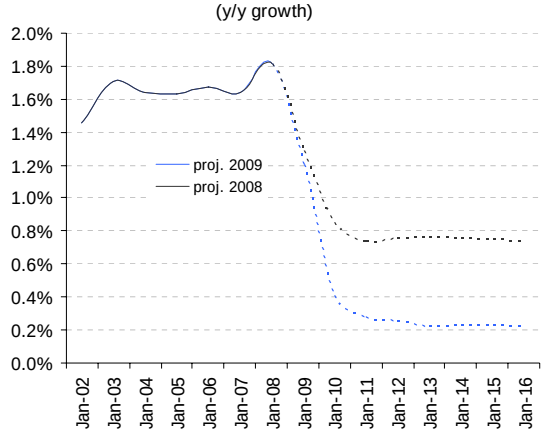
Summary:

1. Global economic perspectives are improving, although uncertainty about the recovery is significant, especially in the developed economies
2. In Spain, pending imbalances and the need to reduce the leverage in some key sectors affect the beginning of the recovery
3. The real estate sector, despite the correction experienced so far, has not bottomed out yet and calls for further price adjustments
4. Residential remodeling and growth in other sectors of the economy could support the market in the short term
5. **After the adjustment is completed, the estimated potential demand of about 400,000 units will support the market in the long term**

After the adjustment is completed, potential demand will reach about 400,000 units

Population growth peaked in 2008 and the outlook for the future shows a significantly more contained growth

Spain: Population growth projections
(y/y growth)

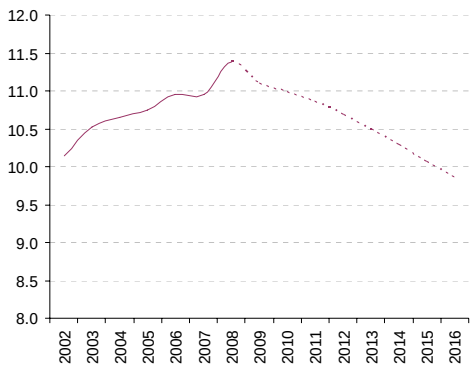


Source: INE.

After the adjustment is completed, potential demand will reach about 400,000 units

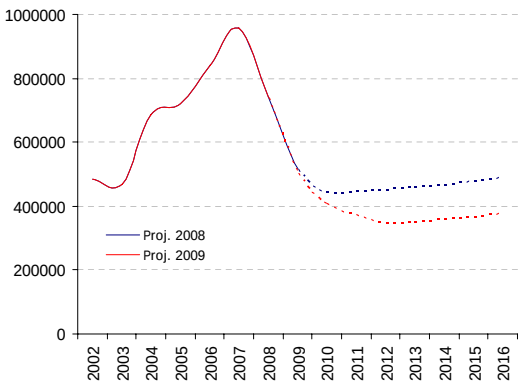
Among the main demographic factors that affect population growth, the revision in migration flows has been the most negative, thus contributing to lower future housing demand

Spain: birthrate projections
(gross rate for 1000 inhabitants)



Source: INE.

Spain: migration flows projections



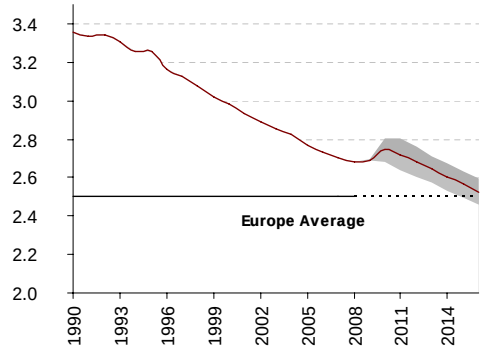
Source: INE.

From an average of about 700,000 immigrants a year between 2001-2008, the new forecasts point towards an average of about 360,000 between 2009-2016

After the adjustment is completed, potential demand will reach about 400,000 units

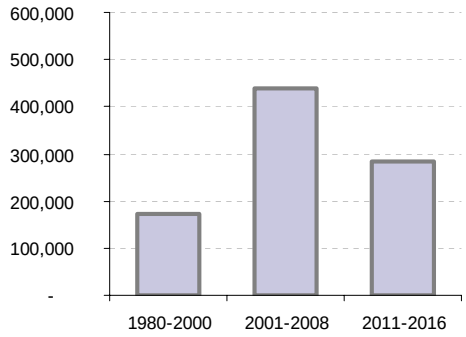
However, **household size reduction**, towards European levels, will generate about 280.000 household a year

Spain: average household size
(n. of individuals)



Source: INE; Eurostat; BBVA ERD.

Spain: household formation
(averages)

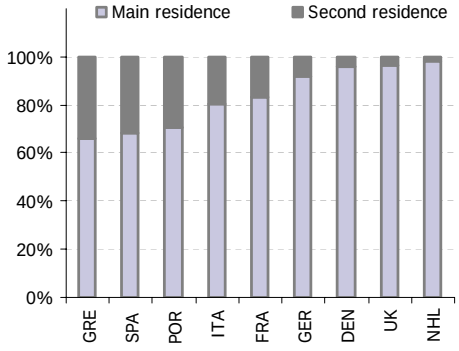


Source: BBVA ERD.

After the adjustment is completed, potential demand will reach about 400,000 units

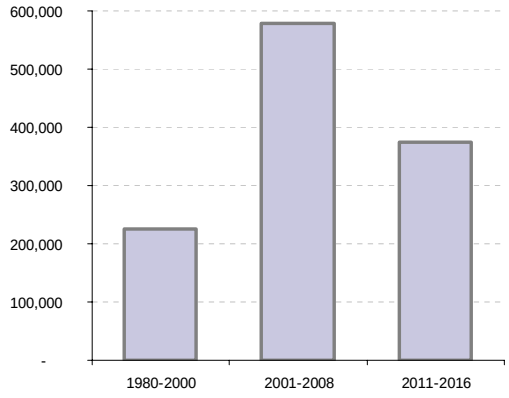
Moreover, demand for **second homes**, even if reduced, will continue to exist in the future. Taken altogether, potential housing demand could reach about **400.000 units a year** once the market returns to **normality**

Percentage of second-residence homes



Source: European Statistics, INE, INSEE, DESTATIS, UK Census, INE (Portugal), and BBVA ERD.

Spain: Potential housing demand
(averages)



Source: BBVA ERD.

Main points:

- Global **economic perspectives are improving**, although uncertainty about the recovery is significant, especially in the developed economies
- The **adjustments** that the Spanish economy is facing condition its recovery in the short term. In 2010 there will be a significant improvement in comparison with 2009, although the economic activity will continue to shrink
- In the real estate sector, **residential activity shows great flexibility**, adjusting according to the sector need to reduce the housing overhang in the market. However, **non-residential activity**, supported mostly by public intervention, is yet to show significant signs of adjustment
- **House prices have not completed their adjustment process**: despite the slight improving signs observed during the summer months, the imbalance in the market is still significant. The cumulative adjustment **from peak should reach about -30% in real terms**
- **Residential remodeling** and growth originated in **other sectors** could act as support factors to the construction sector
- The evolution of **demographic variables** and some structural characteristics of the Spanish real estate market could imply a **potential housing demand of about 400,000** units per year

Real Estate Watch

Second half 2009

– December 2009 -