



# Housing Markets in OECD Countries after the Global Financial Crisis

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*Niekoľko rokov pred globálnou finančnou krízou zažili trhy nehnuteľností vo väčšine vyspelých krajín rozmach, ktorý iba za desať rokov zdvojnásobil až stonásobil ceny. Avšak v roku 2007 cenová bublina praskla a problémy z amerického hypotekárneho trhu rýchlo sa rozšírili nielen do americkej ekonomiky ale do celého sveta. Po značnom poklese cien nehnuteľností sa v roku 2010 trhy vo väčšine rozvinutých krajín stabilizovali. Vývoj na jednotlivých národných trhoch s bývaním ovplyvnili špecifické faktory každej krajiny, preto analyzujeme každý trh samostatne, aby sme hlbšie prenikli do podstaty klesajúceho trhu s nehnuteľnosťami a mohli vyvodiť závery a načrtnúť riešenia.*

1 Hlaváček, Michal. Are residential property prices in the Czech Republic overvalued? Biatec, Národná banka Slovenska, June 2010.

2 Miles, D. and V. Pillionca (2008), "Financial Innovation and European Housing and Mortgage Markets", *Oxford Review of Economic Policy*, Vol. 24, No. 1, 2008.

## INTRODUCTION

Housing markets have historically been important for the normal functioning of every economy in the world, not only because they ensure a basic need of people, but also due to their impact on employment, consumer confidence and spending, and GDP growth. Since the outbreak of the financial crisis, the significance of housing investments as a factor of GDP growth has varied among countries; the negative impact was most pronounced in Ireland, where the decline in residential investments led to a GDP fall of 4.5%. More important, however, is that the problems in the US subprime mortgage market and housing market caused a recession both in the United States and in the global economy. It is therefore clear that the stability and development of real estate markets are crucial for sustainable economic growth and prosperity.

During the crisis years from 2007 to 2009, residential property prices declined sharply. In the United States and Ireland, housing prices dropped by 32% and 41%, respectively. In 2010, overall global housing prices seemed to stabilise, mainly due to the strong performance of property markets in emerging countries. At the same time, real estate markets in a majority of developed countries remained flat. This article looks at housing markets in certain OECD member states, where property prices soared in the years preceding the crisis and clearly exceeded their real economic value.

Any cross-country comparison is complicated by the fact that available real estate data differ significantly from country to country. Developments in various housing markets are also subject to country-specific factors. Therefore, it seems to be more rational and feasible to evaluate individual housing markets separately. By analysing the conditions of each individual market, it is possible to get a better insight into the respective problems, draw conclusions and outline possible solutions for declining housing markets.

## HOUSING MARKETS: FROM BUBBLE TO BURST

During the ten years up to the end of 2007, real estate markets in OECD countries saw a growing price bubble, with property prices substantially exceeding their fundamental value in terms of their long-term average. Observations of previous real estates bubbles indicated that the negative impact on GDP of the unexpected bursting of housing-market bubbles is larger and longer-lasting (4 years on average) than that of stock-market bubbles (1.5 years).<sup>1</sup> Therefore, in order to monitor and regulate conditions in this vital part of the economy, it is crucial to understand the causes of unjustified price increases.

The recent housing bubble was of a systemic nature and was caused by various factors, which are more or less common to all the countries under review. The governments of OECD members were aware of rapid growth in housing prices, but they were reluctant to interfere, and instead let market forces run their course or even fuelled housing inflation. According to the literature on the subject, the reasons for the housing bubbles were as follows:

- Steady income growth and declining unemployment supported an acceleration of dwelling purchases in many countries. Research done by Miles and Pillionca (2008) found that in a sample of OECD countries, between 35% and 45% of real house price increases can be attributed to real income growth. The impact of this factor was highest in Norway (57%) and in Ireland, where real income growth alone caused doubling of prices (108%).<sup>2</sup>
- Population growth over the ten-year period had a positive correlation with housing price increases across OECD countries. The only OECD members that experienced depreciation of real estate prices between 2000 and 2006 were Germany and Japan, where the population growth



rate was the lowest during this period. By contrast, in countries such as Ireland, Spain and the United States, relatively rapid population increase (closely linked with a steady inflow of immigrants) is seen as a reason for sharp dwelling price appreciation. Miles and Pillonca (2008) state that the increase in real estate prices attributable to population growth was around 35% in the United States and Spain and over 70% in Ireland.

- Dwelling purchases by foreigners played a major role in driving up housing prices, especially in some EU member countries. This can be explained by a number of factors that have recently become widespread in the EU: the growing number of retired people, the adoption of the euro as a common currency, the decline of transport costs due to the rapid development of low cost airlines, and the price advantages and attractiveness of some regions.
- An extended period of low monetary policy rates preceded the recent bursting of the housing bubble. Between 1990 and 2007, mortgage interest rates dropped significantly, both in real and nominal terms. In the sample of OECD countries, the average nominal mortgage rate was reduced from about 12% to 5.5%.
- A combination of financial institutions competing strongly for market share and financial sector deregulation led to more relaxed credit standards and, as a consequence, to aggressive lending policies for a larger customer base.
- Because of the expansion of subprime lending, especially in the United States, people who usually would not be able to secure standard loans because of their poor credit history and/or insufficient guarantees were able to take out prime loans. Before its collapse in 2007, the subprime market represented around 20% of all the newly extended mortgages in the United States.<sup>3</sup>
- The media has been accused of creating housing bubbles, since print, radio and TV media organisations received large advertising payments from companies linked to the construction sector (realtors, lenders, construction companies). Moreover, there were accusations that media were pressured by these advertisers to broadcast favourable housing market news on a more frequent basis.

The reasons described above and many others pushed housing prices in the OECD countries to historical peaks. As can be seen from the Table 1, dwelling prices in the 10 years before the bursting of the housing bubble more than doubled in France, Spain and the United Kingdom. Ireland experienced the largest bubble, with property prices tripling between 1992 to 2006. In the United States, nominal house prices increased by 89% between 2000 and 2006, with annual house price inflation running at more than 10%. As for the European Union, house price inflation rose from around 1.5% per year between 1994 and 1998 to an average of 7% per year after 1999.

**Table 1 Increases in residential property prices**

Country	Period	Percentage increase
United States	1995Q1 – 2006Q4	+56.1%
France	1997Q1 – 2007Q4	+112.6%
Spain	1996Q3 – 2007Q3	+127.1%
United Kingdom	1995Q4 – 1997Q4	+173.3%
Ireland	1992Q3 – 2006Q3	+310.2%

Source: OECD.

The period of extensive housing price increases came to an end in 2007, as the US economy started to experience problems in the domestic subprime mortgage market and these quickly spread to other sectors of US economy and eventually to the global economy. As a result, more than 20% of securitised subprime loans had been written off by the end of 2010. After the outbreak of the crisis, housing defaults around the world became more common, since more and more people had to deal with mortgage negative equity (where the outstanding value of the loan exceeds the value of mortgaged property). Stagnating demand for the existing stock of dwellings and sales of foreclosed properties triggered a rapid decline in housing prices. As shown in the Table 2, between 2006 and 2011 housing prices in the OECD countries dropped by up to 41% from their peak levels. The correction was especially painful in Ireland, which was hit by the banking crisis and by falling domestic and foreign demand for real estate. In some countries, however, including the United Kingdom, Spain, and Ireland, property prices still appear to be overvalued and therefore they can be expected to fall still further, posing risks to the banking sector and economic growth.

On the other hand, the drop in residential property prices in developed countries had a positive consequence for people in the market to buy new real estate. Over the past two years, the housing price to income ratio, which is a measure of housing affordability, significantly improved. This means that prices have fallen relative to disposable income per capita, making it easier for people to finance purchases of dwellings. According to the National Association of Home Builders/Wells

<sup>3</sup> IMF, *Global Financial Stability Report*, 2011.

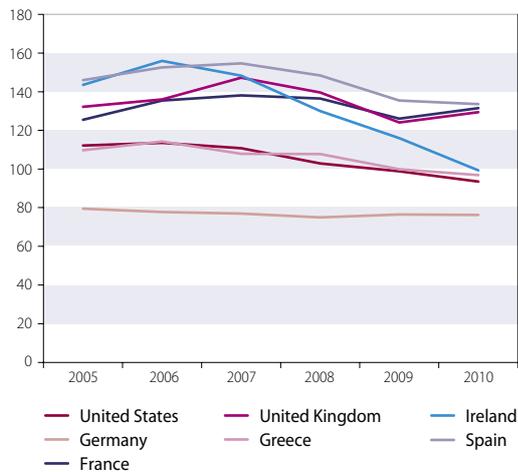
**Table 2 Downturn in residential property prices between 2006–2011**

Country	Percentage change (%)	Under (-)/ over (+) valued (%)
France	11%	48,5%
Germany	-4%	-12,8%
United Kingdom	-11%	27,8%
Spain	-20%	28,2%
United States	-32%	-0,5%
Ireland	-41%	17,9%

Source: OECD, *the Economist*.

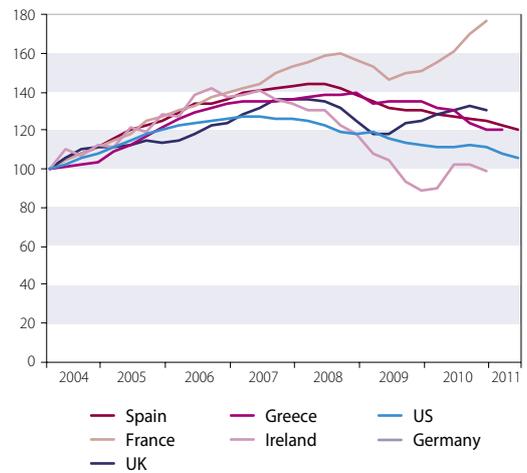


Chart 1 House price to income ratio (Long Term Average=100)



Source: OECD.

Chart 2 Residential Property Price Index (1Q 2004=100)



Sources: Bank for International Settlements.

4 Housing Affordability Hovers Near Record Level as Some Markets Begin to Stabilize – [http://www.nahb.org/news\\_details.aspx?sectionID=135&newsID=13227](http://www.nahb.org/news_details.aspx?sectionID=135&newsID=13227)

5 Knight Frank Global, House Price Index, Q1 2011 results – <http://www.knightfrank.com/news/Knight-Frank-Global-House-Price-Index-Q1-2011-results-0642.aspx>

Fargo Housing Opportunity Index (HOI), 74.6% of houses sold in the United States in the first quarter of 2011 were affordable for households with average income.<sup>4</sup> This means that housing affordability reached its highest level in the more than 20 years that these statistics have been collected. A special case is Germany, where the home affordability ratio has remained extremely stable over time and significantly below its long-term average, due to country-specific characteristics. At the same time, after a slight improvement during the crisis, affordability measures started to deteriorate again in France and the United Kingdom, mainly due to housing shortages in these markets and to foreign capital inflow.

RECENT HOUSING PRICE DEVELOPMENTS IN SELECTED COUNTRIES

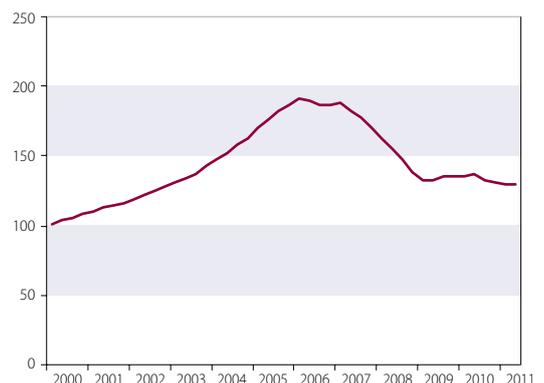
After a couple of years of turbulences in real estate markets and unprecedented government support to this sector of the economy, average housing prices in both OECD countries and the rest of the world have appeared to stabilise, and even rise slightly, since 2010. From 2010 to June 2011, average dwelling prices in the world increased by 1.7%, the slowest housing price growth rate observed since the last quarter of 2009. Such weak figures reveal the magnitude of difficulties which countries have had to cope with following the 2008-09 global financial downturn. In most of what were previously the strongest real estate markets, mortgage lending is limited, while consumer confidence is being reduced by growing unemployment and real household disposable income continues to fall. The fastest growing region is Asia, where housing prices increased by 8.4% over the past 12 months, followed by the Middle East (5.3%) and South America (3.8%). In contrast, real estate prices in the North America in 2010 and in the first quarter of 2011 experienced a 0.4% decline, while in Europe housing prices remained at the same levels.<sup>5</sup>

THE UNITED STATES

In the United States, where the crisis started, the real estate market had one of its most difficult years since the Great Depression. Although the correction in the housing market after 2007 was rather sharp, prices of dwellings available in the market continued to plummet. After the housing bubble burst at the beginning of 2007, the value of the property in the US market dropped in total by 32% in just four years, down to 2003 levels.

The main downward pressure on US housing prices is foreclosures. In 2010, the total number of foreclosures reached around 2.7 million – the highest level since the beginning of the crisis. The key factor behind foreclosures and weak consumer demand is the soaring unemployment rate, which reached 9.1% last quarter. Not even the lowest mortgage rates for more than half a century are able to stimulate consumer confidence and activity in the real estate market. As a result, according to data recently published by the National Association of Realtors (NAR), there were more 3.7 million unsold homes on the market in the second quarter of 2011. At the same time, the

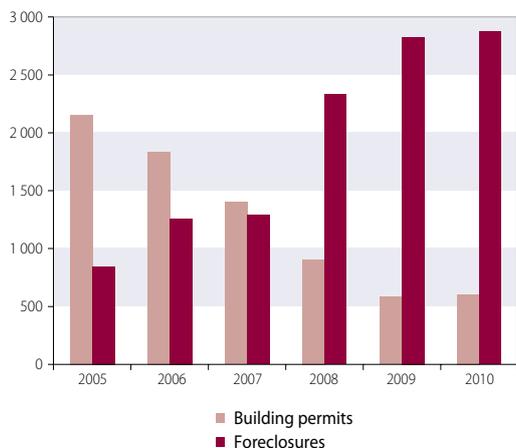
Chart 3 US National Home Price Index



Source: Standard and Poor's.



**Chart 4 Building Permits Issued and Houses Foreclosed (in thous.)**



Source: NAHB, U.S. Census Bureau.

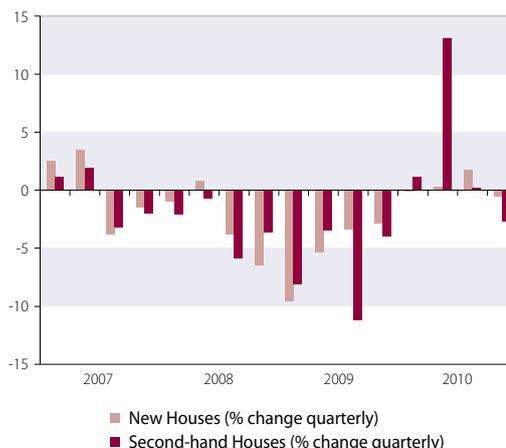
number of housing starts, issued building permits, and completions all declined. In 2010, sales of existing residential properties stood at just 4.91 million units, the lowest number in 13 years, while the number of new residential property sales fell to 321,000 – the lowest figure since 1963.

In addition to foreclosures and growing unemployment, other threats to the US economy might prevent real estate market revival forecasted for 2012. First, there are the tightened lending standards. After the beginning of the financial crisis, major mortgage lenders started to apply stricter conditions for extending new mortgages, with the result that even borrowers with good credit histories now find it difficult to secure loans. Second, the first-time home buyers' tax credit – which had provided support to the housing market and led to average growth of 1.1% per month – came to an end in April 2010. As a result, housing sales decreased rapidly in May 2010 and stayed low.

### Ireland

Among the European members of the OECD, Ireland has been one of the worst affected in terms of real estate market conditions. The situation in Ireland started to deteriorate rapidly in response to the turbulences in the US market, since Irish banks were heavily exposed to US toxic assets related to the real estate market. The housing market boom in this country had lasted for more than a decade, with housing prices tripling from 1996 to 2006 and reaching a historical peak. According to the Department of Environment, Heritage and Local Government (DOEL), prices for new houses in Ireland during this period increased by 250% while prices for used houses jumped by 330%. This price surge was caused by a combination of factors that created an environment in which demand for housing became excessive. The main drivers behind this growth were rising household disposable income (more than 9% annually), a lar-

**Chart 5 Irish House Prices % Change in Quarter over Previous Quarter**



Source: Central Statistics Office Ireland.

ge inflow of immigrants, a tax system favouring home ownership, and one of the lowest mortgage interest rates in the euro area.

In 2007, when the housing bubble burst, real estate prices in Ireland dropped by 41% and returned to levels not seen since 2001. Prices in Dublin fell by more than 50%, and the construction of new homes almost came to a halt. Whereas over 93,000 new housing units were built in 2006, just before the crisis, only about 14,000 new units are expected to be constructed this year. Even such a significant deterioration in real estate prices is still not enough to bring this market to equilibrium and induce people buy homes again. According to government estimates, real estate prices will have to decrease by 60% percent from their peak levels to be affordable for the average Irish household.

The Irish Government made several desperate attempts to revive the falling real estate market, including slashing stamp duty on the sale of existing homes from 7% to 1% and setting the same interest rate for both first time buyers and existing home owners. It introduced the Mortgage Interest Supplement in order to assist unemployed with their mortgage interest payments by allowing them to capitalise their debt for repayment in future. There was also the Home Choice Loans scheme, under which first-time home buyers who have been refused a mortgage by a commercial bank can receive financial assistance for the purchase of newly-built dwellings. Another proposal was that the National Asset Management Agency (NAMA), which had acquired a lot of risky assets, would be able to sell houses below market value. One of the options is that NAMA would sell properties for only 80% of their current market value and charge for the rest only if the value of the property rises in the future.

Despite all the real estate market developments and government attempts to stabilise the market, growth in this sector is being held back by cer-



6 Glock Birgit, Häußermann Hartmut, *New trends in urban development and public policy in eastern Germany: Dealing with the vacant housing problem at the local level*, <http://www.shiva.uniurb.it/eurex/lessonfiles/courses/59/162/haeussermann-Glock.pdf>

tain factors. First of all, unemployment in Ireland increased from 4.5% in 2007 to 14.2% in 2011, reducing domestic demand for available housing. This is especially worrying since oversupply of housing on the market is around 17.4% of the housing stock or 345,116 units, and the home vacancy rate is also around 17%. Also, after ten years of seeing their real disposable income grow, Irish households are suffering an additional burden of the crisis – falling wages. Finally, the fragility of the banking system and ECB policy actions have affected mortgage interest rates. From a low of 3.16%, they have risen to the current 4.25%, putting a further brake on housing purchases.

### Germany

Unlike in Ireland and other European countries, the German housing market did not experience an obvious housing boom. In fact, between 2000 and 2010, housing prices decreased by 18% to levels which, after adjustment for inflation, were on a par with those of the early 1970s.

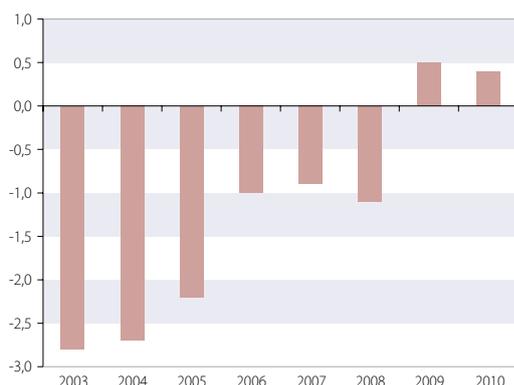
Such developments in the German housing market can be explained by two important factors: the low level of home ownership and high price stability. Among developed countries, Germany has the lowest homeownership rate. Only 43% of Germans have their own house or apartment, while in Italy and Spain this figure is around 80%. This is partly due to the fact that the German government provides for affordable social housing, but mainly because private rents do not rise with inflation. In addition, Germany has a strict landlord-tenant law that protects the interests of tenants.

Another factor that curbed housing price growth in the German market is the price stability of housing that resulted from the reunification of East and West Germany. At this time, in order to stimulate the development of the former East Germany, the Federal Government launched a generous tax programme aimed at attracting residential property investors to the east. The programme allowed people who renovated or constructed new residential properties in this re-

gion to deduct their expenses from their taxable income over next 10 years. As a result, a huge oversupply of housing units was created that still has an impact on prices and the construction sector. In 2000, the former East Germany had around one million empty dwellings (about 14% of the entire stock), of which 7% were offered for sale the market (a level of between 3% and 5% is considered adequate for a well functioning housing market). The situation is projected to deteriorate, with a further 2 million housing units expected to become unoccupied by 2020.<sup>6</sup> The oversupply of housing continues to depress the construction industry in Germany. As the Chart below shows, the number of housing units constructed per year fell from around 250,000 in 2005 to 150,000 in 2010, its lowest level for 50 years. Moreover, in order to provide the quantity of dwellings needed, local governments introduced sophisticated housing plans guaranteeing competitive provision of land for construction purposes. In addition, mortgage loans with fixed interest rates are the norm and have a stabilising effect on housing prices by shielding mortgage holders from unexpected interest rate fluctuations. Finally, German law provides a legal framework for price stability by offering buyers of residential property redress against the seller if the price is above a "reasonable level". If a seller is found by a court to have violated this law, he may be fined or even face criminal prosecution.

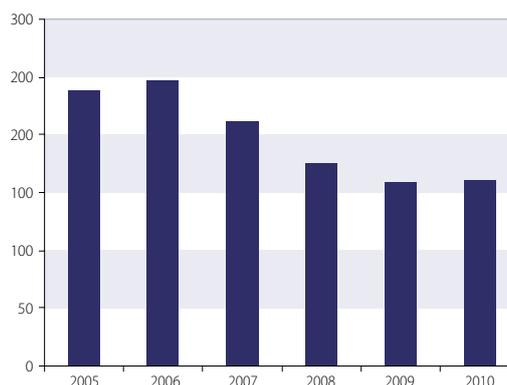
Despite the relative stability of German real estate market during the crisis, there are several potential problems. First of all, the German population is ageing and that means consumer preferences will shift away from the purchase of new homes. According to a forecast from the Federal Statistics Office, the population of Germany will decline by 20% over the next 50 years, to around 65 million. Out of the current 82 million inhabitants, 20% are over 65 years, and this percentage is expected to increase to 33% by 2060. Retired Germans prefer to purchase vacation houses abroad or simply to travel, without investing in the domestic housing sector. Secondly, the current

**Chart 6 Real House Prices in Germany (% change over previous period)**



Source: OECD.

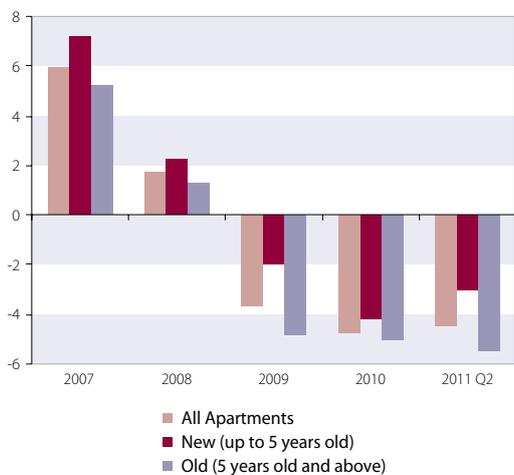
**Chart 7 Dwellings completed (in thous.)**



Source: Statistisches Bundesamt Deutschland (SBD).



**Chart 8 Real Estate Market Average (annual % changes)**



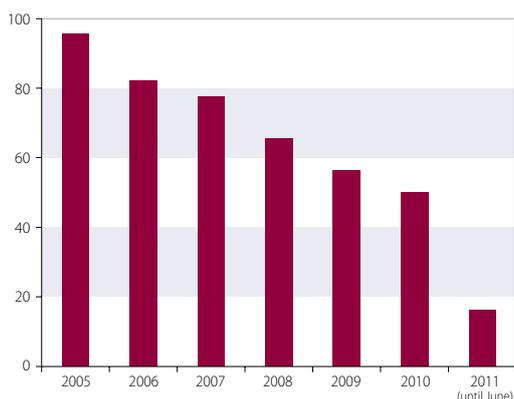
Source: Bank of Greece.

instability in the euro area is slowing down economic and income growth, making individuals less certain about their future and preventing them from making large investments in housing.

**Greece**

Today, the economic troubles of Greece are making headlines all over the world and, through their role in the euro area crisis, are adversely impacting the recovery of the global economy. During the global economic downturn, the real estate market of this Mediterranean country showed impressive price stability in comparison with other European countries. Reckless government spending during the crisis, leading eventually to the Greek debt crisis, allowed Greeks to enjoy financial independence and continue their housing investments. When, however, the scale of the Greek debt problem was recognised by the ECB in 2009 and urgent measures had to be taken, real estate prices started to fall. In the first quarter of 2011, nominal housing prices declined by 5%, after falling by 4.6% in 2010 and 3.7% in 2009. Govern-

**Chart 9 Number of Building Permits Issued (in thous.)**



Source: The Hellenic Statistical Authority (ELSTAT).

ment forecasts about further price developments seems to be grim, and prices for properties more than 15 years old are expected to drop by up to 30% from their 2010 level; prices of ten-year old houses and apartments are projected to fall by up to 15%.

Alongside the decreasing real estate prices, building activity in Greece as measured by the number of building permits (for private and public sector construction) issued has also started to shrink, by 17.4% from March 2010 to February 2011.

Numerous factors have had a negative impact on the Greek real estate market. The most significant have been the austerity measures that Greece has had to implement in order to receive financial assistance from the EU and IMF. These measures include wage reductions and layoffs in the public sector, reflected in falling purchasing power and rising unemployment. Meanwhile, in the Greek banking sector, the inflow of deposits is declining and there is a mortgage lending crunch. As a result, interest rates are rising and crowding people out of the housing market. In addition, IMF/EU assistance programme required the Greek Government to sell properties in order to raise €15 billion by 2013. Overall, Greece promised to raise €35 billion (from a total value of state owned property of €300 billion) by 2015 to avoid defaulting on its debt.<sup>7</sup> This fire sale of state property may put further downward pressure on real estate prices, considering that the oversupply of residential units already stands at around 200,000 (according to a study by the University of Athens Statistical Department).

**CONCLUSION**

After the years of unprecedented growth in real estate prices, the situation changed in 2007, when problems in the United States subprime market triggered the global financial crisis and recession in all advanced countries. In some cases, such as Ireland, property values dropped by more than 40% and returned to the levels of early 2000s. In 2010, the strong performance of Asian countries brought some stability to the global real estate market, but most OECD countries continued to have stagnating property markets.

Since the outbreak of the crisis, the situation in national housing markets across the OECD has been determined mainly by country specific factors, but also by other factors that are common to a majority of countries. First, financial institutions have tightened mortgage lending conditions, leaving millions of people unable to buy their own home. Even people with a good credit history and stable income are finding it difficult to obtain a loan. Second, deteriorating economic conditions have caused a wave of layoffs and surge of unemployment; as a consequence, overall consumer confidence and purchasing power have declined. In such circumstances, individuals may prefer to renovate their existing dwelling or to rent. Third and finally, most OECD countries have

<sup>7</sup> Smyth Sharon. Raising \$50 Billion From Greek Real Estate Is Herculean Task – <http://www.businessweek.com/news/2011-06-23/raising-50-billion-from-greek-real-estate-is-herculean-task.html>





an oversupply of housing units as a legacy from the property boom. This is dragging real estate prices down as realtors have to discount unsold properties.

Future movements in property values are difficult to predict, especially with the global economy on the verge of falling into recession again. Uncertainty about whether Greece will default

and a further slowdown in economic and income growth in OECD countries is fuelling doubts about the prospect of a speedy recovery in the housing market. Moreover, housing in some markets, including the UK, Ireland, Spain, still appears to be overvalued, meaning that property prices may fall still further.

#### Sources:

- André, C. (2010), "A Bird's Eye View of OECD Housing Markets", OECD Economics Department Working Papers, No. 746, OECD Publishing.
- Andrews, D., A. Caldera Sánchez and Å. Johansson (2011), "Housing Markets and Structural Policies in OECD Countries", OECD Economics Department Working Papers, No. 836, OECD Publishing.
- Anonymous, "Ireland Property Prices Down Nationwide" – <http://www.nuwireinvestor.com/articles/ireland-property-prices-down-nationwide-57377.aspx>
- Bank of Greece. Real Estate Statistics – <http://www.bankofgreece.gr/Pages/en/Statistics/realestate.aspx>
- Crome, Barbara, "Current Challenges of Housing Policy in Germany and Outlook to the Priorities of the Spanish Presidency in Housing and Urban Development" – [http://www.iut.nu/members/Europe/West/2010/Germany\\_HousingPolicy\\_2010.pdf](http://www.iut.nu/members/Europe/West/2010/Germany_HousingPolicy_2010.pdf)
- Central Statistics Office Ireland. Housing Statistics – <http://www.cso.ie/px/Doehlg/Database/DoEHLG/Housing%20Statistics/Housing%20Statistics.asp>
- Doyle, Dara, "Ireland Seeks to Entice Homebuyers Deterred by Market's Collapse" – <http://www.bloomberg.com/news/2011-06-07/ireland-seeks-to-entice-homebuyers-deterred-by-market-s-collapse.html>
- Stanley, David, "Germany a stable and safe investment" – <http://goarticles.com/article/Germany-a-stable-and-safe-investment/1013571/>
- Dussias, George, "Declining Real Estate Prices in Greece Will Continue in 2011" – [http://www.associatedcontent.com/article/8061383/declining\\_real\\_estate\\_prices\\_in\\_greece\\_pg2.html?cat=3](http://www.associatedcontent.com/article/8061383/declining_real_estate_prices_in_greece_pg2.html?cat=3)
- IMF, Global financial stability report – Washington, DC : International Monetary Fund, 2011
- "Global Real Estate Trends", Scotiabank – [http://www.scotiacapital.com/English/bns\\_econ/retrends.pdf](http://www.scotiacapital.com/English/bns_econ/retrends.pdf)
- Glock, Birgit, Häußermann Hartmut, "New trends in urban development and public policy in eastern Germany: Dealing with the vacant housing problem at the local level" – <http://www.shiva.uniurb.it/eurex/lessonfiles/courses/59/162/haeussermann-Glock.pdf>
- Hellenic Statistical Authority, "Construction statistics" – <http://www.statistics.gr/>
- "Housing completions in Germany: demand for housing marked by regional differences", Deutsche Bank Research – [http://www.dbresearch.biz/PROD/DBR\\_INTERNET\\_EN-PROD/PROD0000000000254914.PDF](http://www.dbresearch.biz/PROD/DBR_INTERNET_EN-PROD/PROD0000000000254914.PDF)
- "Irish Property Review" – <http://www.treasuryspecialists.com/gns/economic-research/irish-property-review.aspx>
- Knight Frank Global, "House Price Index, Q1 2011 results" – <http://www.knightfrank.com/news/Knight-Frank-Global-House-Price-Index-Q1-2011-results-0642.aspx>
- Hartwich, Marc, "How the Germans keep a lid on prices" – <http://www.smh.com.au/business/property/how-the-germans-keep-a-lid-on-prices-20110213-1as4m.html#ixzz1ZdYFstFU>
- Kinghorn, Matt R, "Housing Market Outlook for 2011" – <http://www.ibrc.indiana.edu/ibr/2010/outlook/housing.html>
- Gerrity, Michael, "Global Housing Market Weakens Further in Half of All Countries", Says Knight Frank Report – <http://www.worldpropertychannel.com/international-markets/residential-real-estate/global-housing-market-report-liam-bailey-residential-research-knight-frank-housing-report-property-bubble-global-house-price-index-international-real-estate-trends-4444.php>
- Voigtländer, Michael, "The German Property Market: Structure and Trends" – [http://www.pfandbrief.org/cms/\\_internet.nsf/0/27F98F6BD20BAAF1C1257738003F3D2B/\\$FILE/The%20German%20Property%20Market.pdf](http://www.pfandbrief.org/cms/_internet.nsf/0/27F98F6BD20BAAF1C1257738003F3D2B/$FILE/The%20German%20Property%20Market.pdf)
- National Association of Home Builders, "Housing Affordability Rises to Record Level, Tight Financing Continues to Constrain Sales" – [http://www.nahb.org/news\\_details.aspx?sectionID=135&newsID=12654](http://www.nahb.org/news_details.aspx?sectionID=135&newsID=12654)
- Miles, D. and V. Pillonca (2008), "Financial Innovation and European Housing and Mortgage Markets", Oxford Review of Economic Policy, Vol. 24, No. 1, 2008, pp.145–175.
- OECD Economic Surveys: "Ireland 2009" – [http://www.oecd-ilibrary.org/economics/oecd-economic-surveys-ireland-2009\\_eco\\_surveys-irl-2009-en](http://www.oecd-ilibrary.org/economics/oecd-economic-surveys-ireland-2009_eco_surveys-irl-2009-en)
- Smyth, Sharon, "Raising \$50 Billion From Greek Real Estate Is Herculean Task" – <http://www.businessweek.com/news/2011-06-23/raising-50-billion-from-greek-real-estate-is-herculean-task.html>
- Statistisches Bundesamt Deutschland – <http://www.destatis.de/>
- "The Rise and Fall of the U.S. Housing Market: Past, Present, and Future" – [http://www.ja.org/files/white\\_papers/Housing-Market-paper.pdf](http://www.ja.org/files/white_papers/Housing-Market-paper.pdf)
- The U.S. Census Bureau and the Department of Housing and Urban Development – <http://www.census.gov/>
- US Housing Market Conditions (Summary) – [http://www.huduser.org/portal/periodicals/ushmc/spring11/USHMC\\_1q11\\_summary.pdf](http://www.huduser.org/portal/periodicals/ushmc/spring11/USHMC_1q11_summary.pdf)