

# EMIF

HYPOSTAT 2010



**HYPOSTAT 2010** A REVIEW OF EUROPE'S MORTGAGE AND HOUSING MARKETS



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Note: Housing and Mortgage Markets in 2010 overview and other country chapters written by the EMF.



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Hypostat, published by the European Mortgage Federation, presents annual statistics on EU mortgage and housing markets, as well as data and information from several third countries such as the United States.

Data is presented in EUR. This may, however, introduce exchange rate distortions for countries outside the euro area. It should also be noted that due to the heterogeneity of sources used, not all data is comparable between countries. For more information on the definitions used, please refer to the Annex "Explanatory Note on Data".

## Key Facts

### Moderate growth in mortgage lending but signs of a levelling off in the second half of 2010

- In 2010, the size of the EU27 mortgage market, as measured by the outstanding volume of residential mortgages, grew by 4.9% to EUR 6.4 trillion. This follows on from a 0.9% expansion in 2009 and a 1.2% decline in 2008;
- The positive growth rate in outstanding residential mortgages recorded in 2010 was still much more moderate compared to the growth rates that were observed during the 2002-2007 booming cycle (7.8% on compound annual average, with a peak of 11.4% in 2006). As a consequence of higher growth rate in residential mortgage lending in 2010, aggregate residential mortgage lending to GDP ratio in the EU27 slightly increased up to 52.4% (from 52% in 2009);
- A moderate albeit fragile recovery in the macroeconomic environment, coupled with mortgage interest rates down to record lows, was the background for mortgage lending activity throughout 2010. All EU markets recorded positive increases in outstanding lending values in 2010, with the exception of the three Baltic countries, Greece and Ireland;
- The positive overall performance of mortgage markets in 2010 was mainly due to favourable developments in new lending. However, new lending has not reached pre-crisis levels in any Member State and the picture varies across Europe. Countries such as Belgium, France, Germany, Italy, Portugal and Sweden, recorded a growth in new lending, whilst there was a moderate decline in new lending in Denmark, Estonia, Spain and UK and a more pronounced decrease in Ireland and Hungary;
- At the aggregate EU level, quarterly data reveals a growth in new lending in the first two quarters of 2010, with a levelling off or slowdown in the second half of the year, paving the way for a more uncertain outlook in 2011, particularly given a situation typified by tightened lending criteria, growing unemployment rates and turbulence in some funding markets, although this is offset to some extent by a benign interest rate environment;

### Decline in construction moderates

- Across the EU, the decline in residential construction activity moderated in 2010, but the volumes of activity remained well below the pre-1998 levels. Building permits and housing starts fell significantly in several EU markets also in 2010 following from the sharp decreases which were already recorded in the three previous years;
- In 2008 and 2009, the correction process from the peaks in residential construction led to the most severe falls on record in many of the countries which experienced the very booming housing cycle from 2002 to 2007. However, the rate of decrease in the number of permits slowed down in most markets

during 2010, and some markets even witnessed year-on-year increases. Despite four consecutive years of falls in residential construction activity, there is still excess supply in some EU housing markets which suggests that the correction is likely to continue;

### Varied picture for house prices

- Concerning house prices, there were three broad trends:
  - vigorous recovery in house prices in Austria, Sweden, France and UK (albeit with a clear levelling off in quarterly growth rates in Q3 and Q4 2010)<sup>1</sup>;
  - lower growth rates in Belgium, Germany, Italy, Luxembourg and Malta;
  - continued house price recession in Cyprus, Ireland, Hungary, Spain (albeit at lower rates in the latter).
- In the NMS, where growth rates in house prices had largely outpaced those of EU15 in the housing boom years, house prices decreased on average by 3%;
- On average, nominal house prices increased by 0.7% in the EU27 and a growth of 1.8% was recorded in the euro area.

### A continued low interest rate environment

- The extremely supportive monetary policy stance of the ECB and other central banks since the onset of the financial crisis in Q3 2008 played an important role in stimulating mortgage demand in 2010. Borrowers benefitted from record low interest rates in June 2010 as the cuts in policy rates were passed on to mortgage interest rates. However, the monetary policy outlook in the euro area started to change significantly in Q3 2010 due to growing inflationary pressures and to increasing tensions on some of the peripheral euro area sovereign debt markets, and this monetary policy tightening led to some short-term increases in mortgage interest rates.<sup>2</sup> Due to accelerating inflation, real interest rates in the euro area became negative in 2010 (-0.6%, against 0.7% in 2009);
- Despite these moderate which were observed in some markets in Q3 and Q4 2010, interest rates remained very supportive of mortgage demand and low in historical terms, i.e. well below the levels observed in 2007 and 2008 before the onset of the crisis. The sharp decrease in nominal mortgage interest rates observed during 2009 and 2010 contributed to the shift in borrowers' preference towards variable mortgage interest rates – as the ECB monetary policy was passed through – while in other markets consumers' preferences proved more risk-averse as a result of the uncertain economic situation.

<sup>1</sup> See *EMF Quarterly Review* on Q3 2010 and Q4 2010 for details.

<sup>2</sup> See *EMF Quarterly Review* Q4 2010 for details.

# Housing and Mortgage Markets in 2010

## 1. Macroeconomic overview

In 2010, real GDP grew by a moderate 1.8% in the EU27, reflecting a recovery from the 4.3% drop recorded in 2009. In 2008 and 2007, at the end of the previous economic cycle, real GDP in the EU27 had increased by 0.5% and 3% (revised, formerly 2.8%) respectively. However, in Q3 and Q4 2010, some clear signs of slowdown in the fragile macroeconomic recovery were witnessed, coupled with growing public debts and the sovereign debt crisis, and prospects for economic growth in 2011 became less favourable.

In the EU, the countries with the strongest economic growth in 2010 were Sweden (5.7%), Slovakia (4%), Poland (3.8%), Finland (3.6%) and Germany (3.6%), while the countries which experienced recession in the EU15 were Greece (-4.5%) and Ireland (-0.4%), for the second consecutive year. The NMS, which had largely outperformed GDP growth rates of the EU15 countries in the previous years and had felt the worst consequences of the global crisis – experiencing tremendous recessions in 2009 (except for Poland) – largely recovered in 2010, with the exception of Latvia (with a moderate fall of 0.3%) and Romania (a drop of 1.3%). The economic recovery in 2010, following on from the most severe recession since the World War II, was mainly due to a rebound in international trade, which boosted exports from major export-led EU economies. In fact, exports increased by 10.6% in 2009 and imports by 9.5% in the EU27 in 2010. The contribution of exports to GDP growth was 3.9%, offset by a 3.4% reduction from imports. Domestic demand provided a 1.3% boost to overall GDP growth, whilst gross fixed private investment reduced GDP by 0.1%. The overall level of gross fixed capital formation declined by 0.7%, though in 2009, this item fell by 12%. Despite the macroeconomic recovery, public finances in many Member States remained under pressure and continued to record sharp budget deficits, albeit lower than in 2009 with the exception of Ireland (32.4% of GDP in 2010 against 14.3% in 2009). The average EU27 budget deficit was 6.4%, ranging from 10.5% in Greece to zero in Sweden. The sovereign debt crisis which started in 2009 and continued throughout 2010 had severe repercussions on the level of general government debt in some EU economies. In fact, government debt increased more than nominal GDP in most countries and this led the debt to GDP ratio to record highs (i.e. 142.8% in Greece, 119% in Italy, 96.8% in Belgium, 96.3% in Ireland, 93% in Portugal). Due to the recovery in global trade, the current account balance continued to improve in many export-driven European countries (mainly Germany and its neighbouring economies such as Denmark, Belgium and the Netherlands) but continued to be markedly negative in others which had cumulated huge imbalances in the previous years (particularly Greece, Ireland and Portugal).

During 2009, the ECB monetary policy stance had been expansionary, with moderate pressures on prices resulting from a combination of weak economic activity and stable commodity prices leading the ECB to primarily focus on macroeconomic conditions rather than on inflationary concerns. This stance was maintained in 2010, but growing inflationary tensions led to this approach coming under review. The ECB left its policy rate unchanged at a record low of 1.00% throughout 2010, but then increased it by 25 basis points (bps) in April 2011 (to 1.25%) and a further 25 bps in July 2011 (to 1.50%). The expansionary stance in monetary policy observed during 2010 continued to benefit mortgage demand and offset the effects of the fragile macroeconomic environment and the difficulties in inter-bank lending markets as a consequence of the ongoing credit crisis.

In 2009, inflation in the EU27 (measured as the Harmonised Index of Consumer Prices, HICP) had clearly decelerated (i.e. from 3.7% in 2008 to 1% in 2009) due to the very weak economic environment and stable commodity prices (see Table 28 of the Statistical Annex). This deceleration in inflation even led to negative inflation rates in three EU countries, i.e. Ireland, Portugal and Spain (by 1.7%, 0.9% and 0.2% respectively), which experienced negative growth in consumer prices for the first time on record. In 2010, inflation generally picked up partly in response to the moderate increase in economic activity and in particular to sharp rises in oil and commodity prices. Average annual EU27 HICP inflation was 2.1% in 2010 (1.0% in 2009) and in the euro area was 1.6% (0.3% in 2009), therefore below the ECB inflation target of 2%. The highest annual increase in the HICP across the EU was recorded in Romania, as already in 2009 (6.1% vs. 5.6%) followed by Greece and Hungary with 4.7%.

Aggregate EU employment decreased by 0.5% in 2010, following a 1.8% decline in 2009, with a corresponding rise in EU unemployment from 9% in 2009 to 9.6%

in 2010. Increased unemployment was recorded in all EU Member States except Germany, Luxembourg and Malta. Unemployment rates remained around record highs in some countries, particularly in Spain (the highest in the EU at 20.1%) and also in Latvia (18.7%), Lithuania (17.8%), Estonia (16.9%) and Slovakia (14.4%).

## 2. Housing markets

### 2.1 Housing supply developments

According to 2010 figures, the numbers of building permits, housing completions and housing starts provided evidence of an easing in the decline in new housing supply in the EU countries for which data is available, although the general correction in the housing market cycle continued (Chart 1). Chart 1 presents the data for eight countries (Czech Republic, Denmark, Hungary, Finland, Poland, Slovakia, Spain and Sweden) for which a consistent set of data from 1998 to 2010 is available. Aggregate data for these eight countries reveals that the residential building activity has declined to a level not seen since before 1998. This reflects a continuation in the correction from historical highs in housing construction and the ongoing excess supply in some markets. Additionally, expectations of future house price declines have slowed new construction activity in some markets.

In several markets, there were signs of recovery in residential construction activity after several years of sharp decline, with increases recorded in Belgium (9%), Denmark (63.8%), France (13.7%), Germany (5.5%), Luxembourg (5.3%) and Sweden (30.3%). For a second set of countries, particularly in some of the NMS, the severe falls observed in 2007-09 continued albeit at a lower rate: (-36.4% in Bulgaria, -6.7% in Czech Republic, -38.9% in Hungary, -16.1% in Malta), as well in the EU15 markets which were most severely affected by the collapse in residential construction as a result of excess supply (-38.9% in Ireland, -13.8% in Spain). It is also worth noting that in Germany – where the market was countercyclical compared with other EU countries which experienced an extraordinary growth in housing supply in the past years – housing construction had already recovered at the end of 2008.

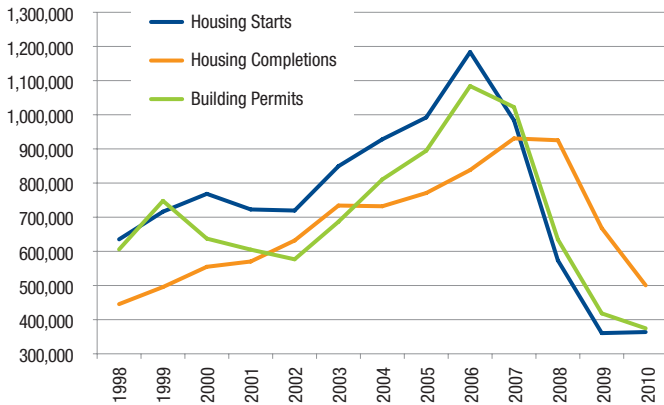
Developments in housing starts confirmed the picture described above. Recovery was recorded in Belgium (0.4%), Denmark (22.3%), Finland (44.2%), France (3.7%), Poland (10.6%), Sweden (50.8%), while continued falls were observed in Ireland (-25.5%), Slovakia (-20.2%), Spain (-17.5%), and Czech Republic (24.6%).

As regards housing completions, national data for 2010 generally did not yet reflect some of the improvements recorded in building permits and/or housing starts, as completions typically respond belatedly – at least with a one-year lag – to upswings in residential construction activity. Data recorded in 2009 in most countries for which information was available showed that falls in completions since the onset of the housing markets crisis were still less severe than for housing starts and building permits, thereby suggesting that in 2010 the trough in housing completions was still to come. Following this pattern, among EU27 countries a recovery in the number of completions in 2010 compared to 2009 was recorded only in Germany (11.3%). A decline in year-on-year developments in completions was recorded in all other EU markets, with higher falls in 2010 than in 2009 in Denmark (40% after 31.1% in 2009), Hungary (34.9% vs. 11.3%), Latvia (54.2% vs. 48.2%), Portugal (27.7% vs. 3.9%). The falls were less pronounced than in 2009 in other markets, some of which experienced a harsh correction from the peaks of the previous residential cycle, such as Estonia (23.2% vs. 42.9%), Ireland (44.7% vs. 48.9%), Spain (33.5% vs. 37.1%), Sweden (20.6% vs. 28.8%).

According to the EMF figures on housing completions per 1,000 inhabitants in 2010 (Chart 2), these were generally much lower than in 2009, reflecting a fall in the number of housing completions due to the sharp downturn in housing activity in most EU countries. As in previous years, housing completions per capita were generally lower in the NMS compared to the EU15.

Data in the EU27 ranged from a value of 5.6 housing completions per 1,000 inhabitants in Spain (a decline from 8.4 recorded in 2009) to 0.9 in Latvia, while all countries for which data is available experienced a decline compared to 2009, particularly Portugal (4.1 in 2010 against 13.6 in 2009), and Ireland (3.3 against 5.9), whilst other countries, as reported in Chart 2, recorded marginal decreases. Germany was the only exception to this picture (2.2 against 1.9).

**CHART 1** ► Housing Supply Indicators, 1998-2010, EU8 (CZ, DK, FI, HU, PL, SK, ES, SE)



Source: European Mortgage Federation

## 2.2 Trends in house prices

Chart 3 shows the increases in nominal house prices from 1996 to 2010. Looking at developments in house prices from a historical perspective which embraces the whole “housing boom” cycle in major EU economies, from 1996 to 2010, the UK and Belgium have been the countries which recorded the strongest increases in house prices in nominal terms in the period (with compound annual growth rates of 8.4% and 8.1% respectively), while Ireland clearly outperformed the other countries until 2008. The peak in the house price cycle was reached around 2006 in most markets, and from 2007, the general rise in house prices started slowing down, after the very buoyant developments in housing demand of the past years which led to record highs in house price indices, then leading to year-on-year falls in many European housing markets in 2008 and 2009.

In 2010, housing market conditions revealed a mixed picture, with divergent national trends. From Q1 2010 and throughout the rest of 2010 a clear improvement in some housing markets’ conditions was noticeable, as a result of very supportive interest rate environment (i.e. mortgage interest rates at record lows), continued – albeit moderate – macroeconomic recovery and, at least in some countries, such as France, Sweden and the UK, the lack of serious corrections from excess housing supply of the past years which all contributed to sustain house prices. On the other hand, housing markets which had already experienced marked falls in house prices in 2008 and 2009 continued with their downturn, even though it was in most cases less severe. In these markets, continued excess supply despite the ongoing correction from the peaks of the pre-2008 years, record highs in unemployment, subdued macroeconomic environment and sovereign debt problems all played an important role in dampening housing demand.

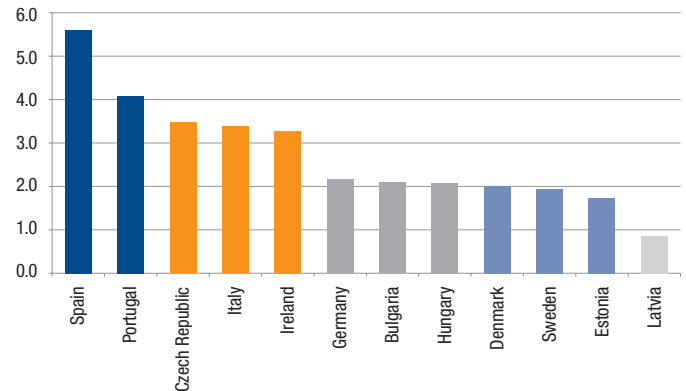
Moreover, the falls in house prices which were observed across the EU markets between 2008 and 2010 still need to be put in the context of the historical peaks that were recorded between 2006 and 2007. In addition, it should be noted that at the end of 2010 nominal house price indices remained high in absolute levels.

Notwithstanding this mixed picture in housing markets, it should be noted that the recovery observed in some markets and the general outlook for housing markets in the EU are strongly associated with the extremely low level of interest rates. The low interest rate environment played a fundamental role in supporting housing demand, and data from Q4 2010 and Q1 2011<sup>3</sup> indicate that the monetary policy tightening by the ECB and other central banks – stemming from growing inflationary pressures in the EU – may seriously undermine this support. In addition, latest macroeconomic indicators (for Q1 2011) suggest that the outlook for the EU economy is that of a very fragile recovery, which will scarcely provide further support to housing demand.

<sup>3</sup> See EMF Quarterly Reviews on Q4 2010 and Q1 2011 for details.

<sup>4</sup> See Country Report on Germany for details.

**CHART 2** ► Housing Completions per 1000 inhabitants, 2010



Source: European Mortgage Federation

Looking at individual country data, in 2010 Austria (5.1%), Belgium (4.4%) and Sweden (7.4%) experienced positive annual growth rates in house prices for the second consecutive year. In Austria and Sweden the recovery proved particularly strong. In the latter country, the reasons behind this performance were a combination of buoyant macroeconomic recovery during 2010 – at much higher rates than any other EU Member State – lower interest rates than any other EU member State, and – to a certain degree – a “housing shortage”, i.e. lack of housing supply which in turn pushed housing demand upwards.

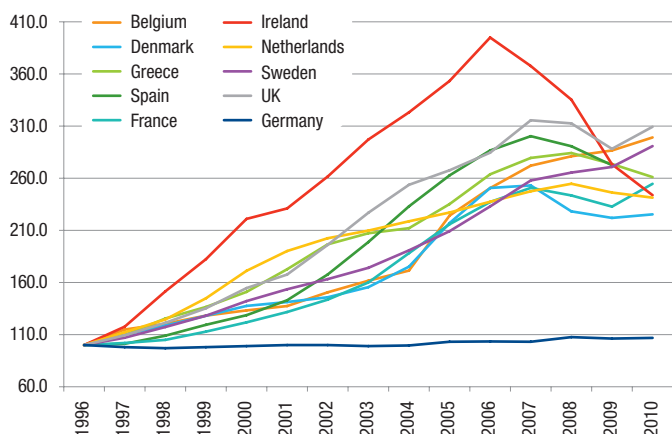
Other markets experienced increases in house prices which represented recoveries from the falls experienced in 2009: France (with a 9.4% growth rate which was the highest in the EU), Luxembourg (4.5%), Malta (1.1%) and Portugal (1.8%). In Portugal, in particular, housing demand proved resilient despite the worsening macroeconomic environment.

The housing market recession continued but eased in Hungary (-5.7% in 2010 vs. -6.3% in 2009) Ireland (-10.8% vs. -18.5%), Netherlands (-2% vs. -3.3%) and Spain (-3.5% vs. -6.3%). These falls in house prices in 2010 suggest that there is room for further correction from the past housing cycle in these markets, reflecting excess housing supply still in place and faltering housing demand due to high unemployment rates and unfavourable macroeconomic developments (in Hungary, Ireland, Spain). In the Netherlands, which had also experienced large increases in house prices until 2008, although not as high as the so-called “housing boom countries” the continued decline in prices can be most probably explained by the natural end of a very positive house price cycle. In the UK, after the sharp year-on-year fall in house prices (7.8%) recorded in 2009, which had followed the modest decrease (0.9%) in 2008, the housing market continued to follow upward movements in 2009; house prices showed signs of vitality particularly in Q1 and Q2 2010 thanks also to the very low interest rates but then lost ground in the second half of the year. However on a year-on-basis house prices increased in 2010 by 7.4%.

Germany’s house price cycle was an outlier compared to all other EU economies, having recorded very stable and moderate growth rates in house prices since 1996 (Chart 3). In Germany, according to the VdP house price index, residential property prices recovered by a moderate 0.6% after having dropped by 1.3% in 2009. Available housing indicators (both on the supply and on the demand side), confirmed that developments in Germany over the recent years were countercyclical in comparison with the rest of the EU<sup>4</sup>.

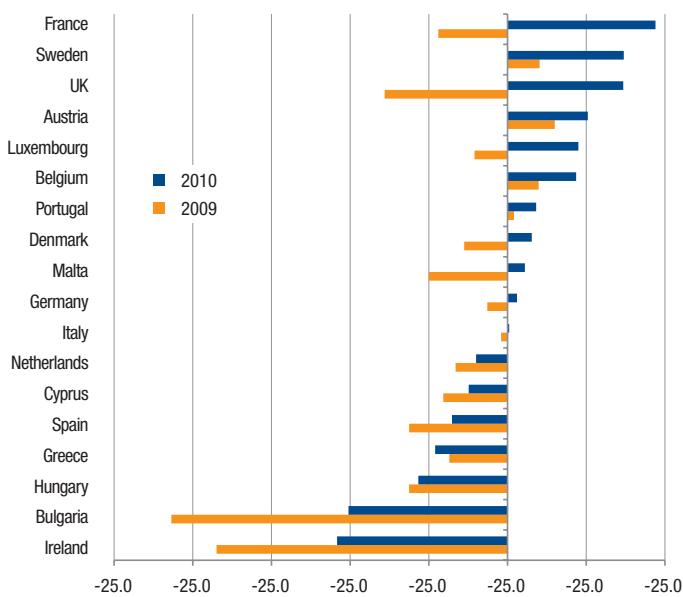
On average, in the EU27 house prices in 2010 increased on 2009 by a meagre 0.7% in nominal terms, slightly recovering from the harshest decrease on record in 2009 (of 5.8%), and in the euro area by 1.8% (also recovering from the fall of 2.8% in 2009). In the NMS, the average annual growth rate in 2010 was negative by 3%.

**CHART 3** ► Nominal House Price Indices, 1996-2010 (1996=100)



Source: European Mortgage Federation

**CHART 4** ► Nominal House Prices' Growth Rates in 2010 and 2009, %



Source: European Mortgage Federation

## 3. Mortgage markets

### 3.1 Mortgage market models

Generally, it is difficult to describe an EU model of mortgage markets given substantial diversity in national markets in terms of factors such as market size, breakdown by interest rate type, predominant type of lender and prevailing funding source.

In terms of market size, there is still a large difference between the "mature" markets in the EU15 (the UK was the biggest EU market in 2010 with EUR 1.4 trillion) and the NMS, of which Poland in 2010 was the largest market with EUR 67.8 billion, Malta being the smallest with EUR 2.7 billion. Although the latter group of countries

recorded a much more dynamic growth over the last ten years, mortgage markets in the NMS are still comparably smaller than the EU15, both in absolute terms and as a proportion of GDP (see Tables 1 and 13 of the Statistical Annex for details).

It is also interesting to evaluate mortgage markets by the predominant interest rate category. In most EU markets, consumers can typically opt for three broad categories of mortgages: at one extreme is the "fixed rate mortgage" where the interest rate remains unchanged throughout the entire duration of the loan. At the other extreme is the "variable rate" where the interest rate variability can, in some cases, be unlimited both in terms of frequency and the size of the change. In addition, there is also the initial fixed period rate, where rates are fixed for an initial period after which they can become variable or can be fixed for another period. Countries where variable rate mortgages are common are typically Denmark, Ireland, Italy, Portugal, Sweden and Spain, while in Belgium, France, Germany, Greece, Netherlands and to some extent the UK fixed rate mortgages were predominant. However, it should be pointed out that in many EU countries the split between fixed or variable rates on new loans can change very rapidly. These changes are typically due to changes in the relative cost of short-term rates versus long-term rates, as well as the introduction of new products onto the market. According to quarterly data collected by the EMF on mortgage market breakdowns by interest rate type<sup>5</sup>, the decline in mortgage interest rates after 2008 – as a response to cuts in policy rates by Central Banks – was coupled with a gradual shift in consumers' preferences from fixed-rate mortgages to variable rate mortgages in some markets (see 3.3 for further details).

The breakdown of mortgage markets by interest rate type also differs considerably between Member States due to a range of factors: predominant type of funding source, inflation history, cultural differences, differences in yield curves, early repayment regulations, caps/floors<sup>6</sup>. With regard to mortgage funding, in countries where mortgage funding entirely takes place through covered bonds (mainly Denmark), fixed-rate mortgages traditionally prevail. On the other hand, in countries where retail deposits are the main funding source variable-rate mortgages generally prevail. There are commonly two major types of funding sources (according to the ECB definitions): general funding instruments (mainly savings deposits) and specialised funding, which includes mortgage covered bonds and residential mortgage-backed securities (RMBS). In general, the breakdown of mortgage funding by type of source largely varies across the EU, although there is no comprehensive information available on this issue allowing any cross-country comparisons, and data is rather fragmented. On the one hand the Danish mortgage market is entirely financed via covered bonds; while in some markets deposits are in fact the only funding sources for mortgage lending, with no covered bonds and/or securitisation. In Germany, the main funding instrument is savings deposits, followed by mortgage covered bonds (*Pfandbriefe*).

Finally, another distinction can be made as regards the predominant type of lender (mortgage banks, universal banks). In this respect, it is nonetheless rather hard to identify groups of markets, since the mortgage market breakdown by type of lender in the EU is very heterogeneous: at first glance, it is possible to define where mortgage banks hugely prevail (Denmark), and markets where the "universal" commercial bank clearly plays a predominant role in providing mortgage credit. For example, in some continental European markets, such as Italy and Portugal, there are no specialised mortgage banks. However, this distinction is not so sharp and most EU markets are characterised by very different pictures. For instance, in Germany, a wide range of private, cooperative, public banks, *Bausparkassen* and insurance companies provide mortgage lending. In France, mortgage lending is mainly distributed by commercial banks; specialised mortgage banks are now very few and hold a small share of the market, and this is also true for Poland. In Sweden, mortgage institutions hold a large share of the mortgage market; nonetheless, the majority of mortgage institutions are owned by banks, and there are also a number of banks without a mortgage institution which directly offer mortgages. In the UK, a wide range of banks, building societies and other specialist lenders (OSLs) are active in the mortgage market. At the end of 2008, when the global financial crisis started of total lending secured on dwellings outstanding, 50% was with banks, 17% with building societies and 33% with OSLs. It is worth noting that the financial crisis after 2008 changed the market landscape dramatically. Since then a number of large lenders underwent mergers, and a number of major British banks had been taken into part or full public ownership as emergency measures.

<sup>5</sup> See the EMF Quarterly Reviews of 2009 and 2010 for details.

<sup>6</sup> See the EMF Study on Interest Rate Variability (2006) for details.



In broader terms, however, there is no agreed definition of “lender” as well as of “residential mortgage lending outstanding” at the EU level. This concept indeed differs in each country depending on their respective market and definition, as residential mortgage lending encompasses a variety of different loan products offered on national markets throughout the EU. This variety is in turn reflected in the different types of lenders in each national market<sup>7</sup>.

### 3.2 Mortgage markets' developments

In the EU27, the aggregate volume of residential mortgage lending outstanding rose by 4.9% to EUR 6,414 trillion in 2010, compared to an increase of 0.9% to EUR 6.113 trillion in 2009 which had followed the first mortgage market recession in the EU27 on record (-1.2%) in 2008. To put this in context, during the 2002-2007 booming cycle, the compound annual average growth rate was 7.8%, peaking at 11.6% in 2006.

The residential mortgage lending to GDP ratio in the EU27 increased to 52.4% in 2010 (from 52% in 2009), mainly due to the higher increase in mortgage lending than in nominal GDP as a result of the moderate economic recovery (Table 1). Most countries experienced higher ratios of outstanding mortgage lending to GDP than in the previous year, continuing the trend already seen in 2009. In the Netherlands and in Denmark, the ratio of mortgage lending to GDP exceeded 100% for the second consecutive year (Chart 5).

The positive performance of outstanding mortgage lending in the EU in 2010 should be seen, as well the declining performance in outstanding residential mortgage lending observed in many markets in 2009, in historical context. Moreover, the pace of the general slowdown experienced in the EU as a whole in 2008 and 2009 can also be put in contrast with the harshness of the downturn experienced in US housing and mortgage markets<sup>8</sup>.

Evidence suggests that the importance of mortgage lending within the EU economy has in fact grown enormously since 1998. Total growth in mortgage lending as a percentage of GDP from 1998 to 2010 is reported in Table 1 (it went from 32% in 1998 to 52.4% in 2010), while national data on mortgage lending as a percentage of GDP in 2010 and in 2009 are reported in Chart 5. Equally, mortgage debt to GDP ratios and corresponding growth rates in mortgage lending in 1998 and 2010 are reported for individual countries in Charts 6 and 7.

As far as national data on nominal growth in mortgage lending is concerned, 2010 was generally characterised by positive performances in mortgage markets being recorded in most markets, which provided an overall picture of the state of mortgage markets that was comparably better than in 2009. The impact of the macroeconomic and financial crisis was, in fact, largely offset by the pronounced expansionary stance in monetary policy all across the EU, which led to record lows both in policy rates by the ECB and other Central Banks and in mortgage interest rates applied to borrowers. In the NMS, growth rates in mortgage lending continued to outperform those recorded in mature EU15 markets but markedly slowed down, resulting in mortgage market recession in the three Baltic Countries. In sum, twelve out of the EU27 Member States experienced higher growth in outstanding mortgage loan volumes in 2010 than in 2009, i.e. Austria, Finland, France, Germany, Hungary, Italy, Luxembourg, Netherlands, Poland, Romania, Slovakia and Slovenia. The highest annual growth rates in mortgage markets in the EU27 in 2010 year were Poland (24.5%), Slovenia (23.2%), Italy (20.9%), and Romania (13.1%), which all recorded more pronounced growth rates than in 2009 (0.3%, 15.7%, 7.3% and 10% respectively). The lowest growth rates in mortgage lending in the EU27 were recorded in Spain (0.2%), the UK (0.4%) and Germany (0.5%). Outstanding mortgage lending increased by 4.9% in the EU27 and by 3.9% in the euro area.

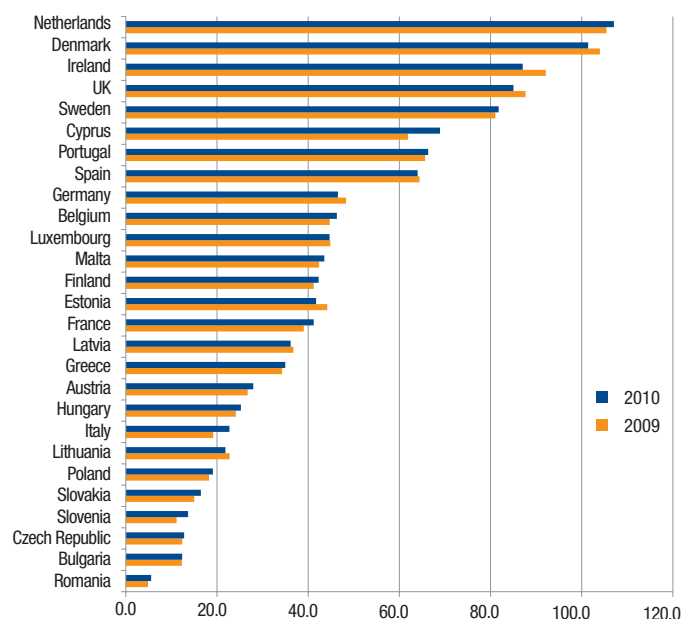
The countries which recorded negative annual growth rates in outstanding mortgage loans were the three Baltic Countries, Ireland and Greece. The latter country in particular experienced its first mortgage lending recession on record (0.2%) as a result on the harsh economic crisis, while the Baltic countries (with mortgage

Table 1 ► Residential Mortgage Debt to GDP ratio (%)

	1998	2010	growth in mortgage debt 1998-2010
Austria	n/a	28.0	n/a
Belgium	26.5	46.3	19.8
Bulgaria	n/a	12.4	n/a
Cyprus	3.6	68.9	65.3
Czech Republic	n/a	12.8	n/a
Denmark	67.5	101.4	33.9
Estonia	3.7	41.7	38.0
Finland	n/a	42.3	n/a
France	20.0	41.2	21.2
Germany	51.9	46.5	-5.4
Greece	5.8	35.0	29.2
Hungary	n/a	25.2	n/a
Ireland	26.5	87.1	60.5
Italy	6.0	22.7	16.7
Latvia	n/a	36.2	n/a
Lithuania	0.9	21.8	21.0
Luxembourg	23.3	44.7	21.4
Malta	n/a	43.5	n/a
Netherlands	55.3	107.1	51.8
Poland	1.5	19.1	17.6
Portugal	n/a	66.3	n/a
Romania	n/a	5.6	n/a
Slovakia	n/a	16.5	n/a
Slovenia	n/a	13.7	n/a
Spain	23.9	64.0	40.1
Sweden	43.9	81.8	37.9
UK	49.8	85.0	35.2
<b>EU27</b>	<b>32.0</b>	<b>52.4</b>	<b>20.4</b>

Source: European Mortgage Federation, Eurostat

CHART 5 ► Residential Mortgage Debt to GDP ratios, 2010 and 2009

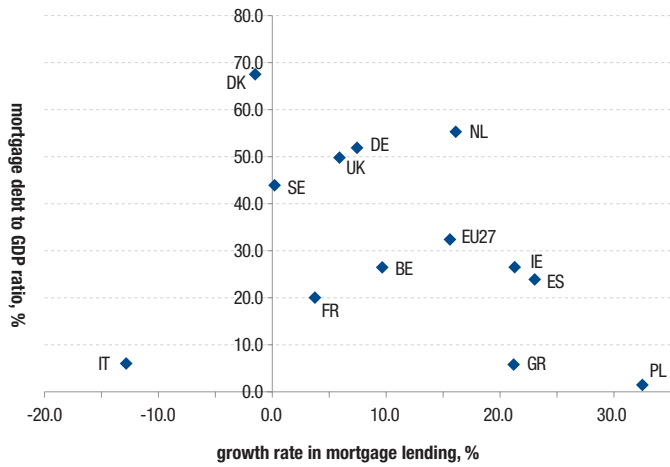


Source: European Mortgage Federation

<sup>7</sup> Types of lenders included in the indicator “residential mortgage lending outstanding” can differ from country to country and for the majority of countries analysed these are mainly monetary financial institutions (MFIs). However, the indicator can also include lenders such as insurance corporations, governments and pension funds. For example in the UK the lenders included in the indicator are MFIs and other institutions, such as central and local governments, public corporations, insurance companies and pension funds. For further details, please see the EMF’s “Note on Data Definitions”, February 2008.

<sup>8</sup> See the Country Report on the US for details. In 2010, house prices increased by a meager 0.3% on 2009 in the US (by 0.7% in the EU27), and mortgage lending recorded a decrease of 2.7% on the previous year (while the EU27 recorded a positive growth rate of 4.9%).

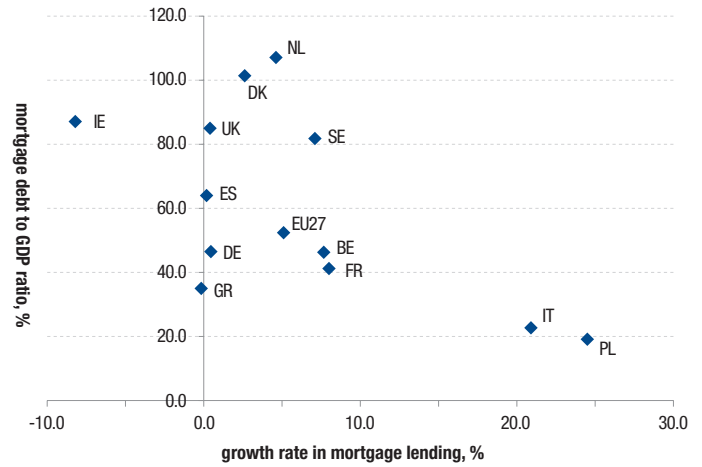
**CHART 6** ► Growth in mortgage markets and mortgage debt to GDP ratios, 1998



Source: European Mortgage Federation

Note: data on nominal growth rates in mortgage lending are calculated on values expressed in national currencies.

**CHART 7** ► Growth in mortgage markets and mortgage debt to GDP ratios, 2010



Source: European Mortgage Federation

Note: data on nominal growth rates in mortgage lending are calculated on values expressed in national currencies.

lending falling by 2.4% in Estonia, by 4.6% in Latvia and by 0.7% in Lithuania) and Ireland – where the mortgage crisis resulted in the most severe fall in mortgage lending in the EU (of 8.2%) – recorded their second consecutive decreases.

Among the NMS, which were by far the fastest growing markets in the EU27 during the “housing boom” years between 2002 and 2007 – when growth rates in these markets outpaced 20% – mortgage lending developments continued to be positive albeit at much reduced growth rates. Out of the seven Member States which recorded growth rates in mortgage lending above 10%, six were NMS (Hungary, Slovakia, Cyprus, Romania, Slovenia and Poland). Apart from the recessions going on in the three Baltic countries, among the NMS only Bulgaria recorded a relatively lower growth in mortgage lending (3.8%), which was well below the NMS average (9.6%).

As far as EU15 countries are concerned, growth in mortgage lending in Italy in 2010 clearly outpaced that of other mature economies and reached 20.9% (the EU15 average was 6%).

There was a recovery in levels of new mortgage lending in many markets in 2010, particularly during the first half of the year, although new lending remains below the peak levels seen in the second half of 2007. In 2009, there had been a marked decline in new lending in all markets, except for Malta and Sweden. In 2010, evidence of positive growth rates could be observed in Belgium (21.3%), France (77.5%), Germany (6.5%), Italy (9.7%), Portugal (8.3%) and Sweden (13%), while Denmark<sup>9</sup> and Malta, which had recorded positive growth rates in 2009, experienced year-on-year falls of 4.5% and 13.9% respectively. Ireland, Estonia, Hungary, Estonia, Spain and the UK (the latter at a very moderate rate, i.e. 1.5%) all recorded a decrease in new lending for the second consecutive year, albeit at an eased rate of decrease.

Tighter lending criteria, growing unemployment rates and funding problems continued to affect the mortgage environment and to dampen demand but on the other hand were offset by the continued – albeit moderate – macroeconomic improvement in the EU and low interest rates which were the main factors behind positive year-on-year performances in many countries.

### 3.3 Interest Rate Developments

After the onset of the financial crisis which followed the Lehman Brothers crash in September 2008, and also in order to contain the sharp deterioration in the macroeconomic environment, Central Banks made several consecutive cuts in their respective policy rates between Q4 2008 and Q2 2009 down to historical lows. This expansionary monetary policy stance in the EU continued throughout 2009 until Q3 2010. However, in Q3 2010 the macroeconomic and inflationary developments quickly triggered a change in the policy interest rate environment, creating expectations for monetary policy tightening and rise in mortgage interest rates<sup>10</sup>. This reversal in monetary policy has somewhat dampened the recovery in mortgage lending and housing markets that was observed in 2010, which was in fact largely interest-rate sensitive. However, at the end of 2010 and early 2011 both nominal and real – despite an acceleration in inflation in the EU in Q3 and Q4 2010 – interest rates remained at low levels across the EU in absolute and historical terms.

ECB monthly aggregate data for the euro area show that in 2009 interest rates continued to decline – having moved along a downward trend since January 2009 – across all loan maturities (Chart 9). Variable rates reached a historical low level of 2.56% in June 2010. Record lows were also reached by fixed rates from 1 to 5 years (3.52% in December 2010), fixed rates from 5 to 10 years (3.76%) in November 2010 and fixed rates over 10 years of 3.69% in October 2010.

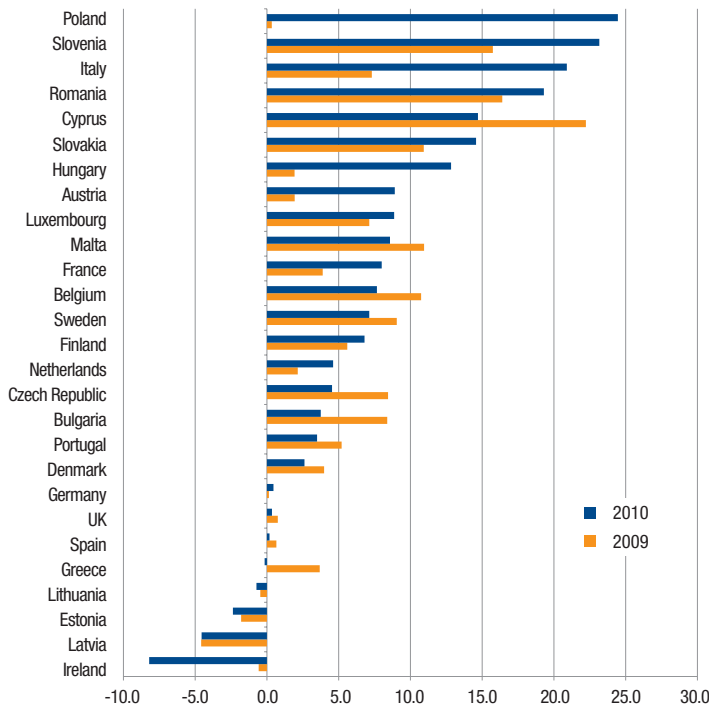
Latest monthly observations (January to July 2011) reveal that, after these record lows, all interest rate types in the euro area started to increase sharply due to expectations of monetary policy tightening and to tensions in sovereign debt markets, but remained at low levels in historical terms. This upward trend started to ease in May 2011 (Chart 9). From December 2009 to December 2010, interest rates on variable rate mortgages recorded a marginal increase of 7 bps, while the three common types of fixed rate (initial fixed from 1 to 5 years, from 5 to 10, more than 10 years) decreased by 44, 52 and 65 bps respectively (at end-2009 they had decreased by 238, 110, 68 and 87 bps respectively), reaching 2.78%, 3.52%, 3.80% and 3.71%.

<sup>9</sup> It is worth noting that the annual performance of gross lending in Denmark should be associated with the subdued numbers in net lending, thus reflecting healthy activity in the prepayment market

<sup>10</sup> The ECB lowered its central rate four consecutive times in the first two quarters of 2009, leading it from 2.50% in January 2009 down to 1.00% in May 2009, then left it unchanged throughout the rest of 2009 and 2010; but then, it increased it by 25 basis points (bps) up to 1.25% in April 2011 and again by other 25 bps up to 1.50% in July 2011. Equally, the Bank of Sweden also cut

its repo rate in the first three months of 2009, from 2.00% in January to 0.25% in April 2009; however, in a one-year time (from July 2010 to July 2011) the repo rate was raised seven times by a total of 175 basis bps up to 2.00%. The Bank of Denmark cut its discount rate from 3.50% in January 2009 to 1.00% in August 2009, then cut it further down to 0.75% in January 2010, but then raised it again to 1.00% in April 2011. The Bank of England lowered its base rate from 1.50% in January 2009 to 0.50% in March 2009 and left it unchanged since then.

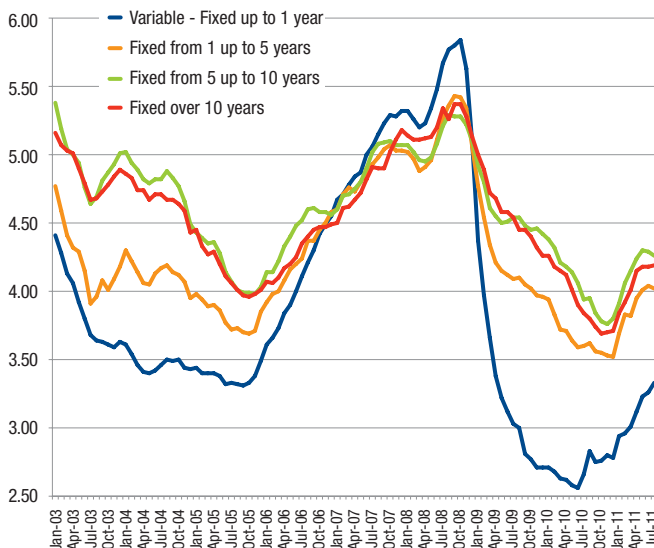
**CHART 8** ► Mortgage markets' nominal growth rates, 2010 and 2009 (%)



Source: European Mortgage Federation

Note: annual growth rates are calculated on values expressed in national currencies; please note that annual growth rates in mortgage lending for Bulgaria, Denmark, Estonia and Lithuania were the same as if they were calculated in EUR values, since currencies in these countries are pegged to the EUR according to the ERM-2 (Exchange Rate Mechanism).

**CHART 9** ► Mortgage Interest Rates in the euro area, 2003-2011 (%)



Source: European Central Bank

Note: Annualised agreed rate (AAR) / Narrowly defined effective rate (NDER)

Interestingly, while in the course of 2009 the spreads between the average variable rate – which proved more sensitive to the repeated cuts in policy rates – and the three common types of fixed rates in the euro area considerably widened, reaching their highest levels since 2006, i.e. 125, 171 and 155 bps respectively, these spreads sharply narrowed at end-2010 and reached 74, 102 and 93 bps respectively.

A similar picture was revealed by the EMF data on representative mortgage interest rates<sup>11</sup> (Table 20). During 2010 mortgage interest rates further decreased in most EU countries and reached new record lows, mainly as a result of the prolonged expansionary monetary policies of the ECB and other Central Banks. For example, representative mortgage interest rates on new loans went down from 5.19% to 4.68% in Denmark, from 4.60% to 4.00% in France, from 4.29% to 3.70% in Germany and from 4.28% to 3.75% in the UK. On the other hand, in some other markets marginal increases were recorded (in Spain, from 2.52% to 2.54%; in Cyprus, from 5.01% to 5.16%; in Ireland, from 2.61% to 3.01%; in Italy, from 2.88% to 2.97%; in Portugal, from 2.22% to 2.96%; in Sweden, from 1.44% to 2.78%). In general, all other countries also recorded remarkable decreases in mortgage interest rates on new loans in 2010, which provided considerable support to mortgage demand during the crisis.

It is also worthwhile to shed some light on the evolution in the breakdown of mortgage lending markets by interest rate type during 2010. During 2009, a continued shift from fixed to variable rates had been observed from figures on the breakdown of new mortgage loans by type across the EU, boosted by continued record lows in mortgage interest rates – which were the result of the pass-through of the prolonged expansionary stance by Central Banks. The expectation of rises in policy interest rates, coupled with ongoing tensions in funding and sovereign debt markets, started to reverse this picture somewhat during 2010. In some markets, borrowers' preferences moved from variable-rate to fixed-rate mortgages, reflecting an increase in households' cautiousness and risk-aversion.<sup>12</sup> For example, in Belgium, which is traditionally considered a country where fixed-rate mortgages are predominant, the share of new loans with fixed rate went down from 82.7% in Q4 2008 to its record low of 28.8% in Q1 2010 but then started to increase rapidly during the year and returned to 71.7% in Q4 2010. The same phenomenon could be observed in Denmark, where the proportion of fixed-rate mortgages decreased from 43.9% in Q3 2008 to 12% in Q1 2010, but then rose sharply to 38.1% in Q4 2010. In Q4 2010 an increased share (approximately 40%) of all new loans were issued with a 30-year fixed interest rate, since fixed-rate mortgages account for the majority of early redemptions (yet, the majority of new loans were still issued at variable rate mortgages). Danish figures for Q1 2011 showed that this trend continued<sup>13</sup>, and that the share of fixed-rate mortgage loans has been declining since the onset of the financial crisis in late 2008. This should be seen in relation to falling interest rates and a yield curve that remains relatively steep, which continue to make the adjustable-rate mortgage loans more attractive. In the rest of EU markets, the share of fixed rate loans remained stable and was not largely affected by interest rates developments throughout 2010.

As regards more recent short-term developments in mortgage interest rates in 2011, as documented in the EMF's Quarterly Review focusing on data up to Q1 2011<sup>14</sup>, the expectation of monetary policy tightening in the euro area, as a result of mounting inflationary pressures in Q3 and Q4 2010 – coupled with continued tensions in government bond markets – had some repercussions on the level of mortgage interest rates, which started to increase in some markets. In Q1 2011 mortgage interest rates rose in most markets on a quarterly basis, albeit at very moderate rates, ranging from 12 bps in Hungary to 70 bps in Sweden, so that they remained low in historical terms, i.e. well below the levels observed before the crisis. Whilst interest rates were higher than the previous quarter, they were still lower than the prevalent rate a year before in Hungary (by 53 bps), Poland (by 40 bps) and the UK (by 24 bps). In other markets, conversely, mortgage interest rates increased compared to Q1 2010, the highest rises being recorded in Sweden (by 107 bps) – where it should however be noted that Q1 2010 had represented the record low of 1.44% – and also in Greece (by 85 bps) and Portugal (98 bps), with continued tensions in the sovereign debt markets representing the source of the problem for the latter two.

<sup>11</sup> Representative mortgage rates are the most representative mortgage rates offered by lenders on loans granted during the period (end of period rate).

<sup>12</sup> For more details, see *Quarterly Review issues of 2007*.

<sup>13</sup> See *EMF Quarterly Review* on Q1 2011 for details.

<sup>14</sup> *Ibidem*.

# Recent developments in the UK housing market<sup>15</sup>

By Christophe André, Organisation for Economic Co-operation and Development (OECD)

## 1. Introduction

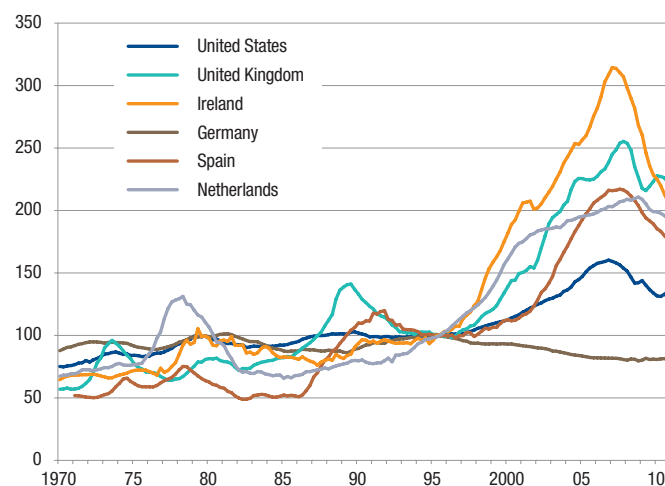
The United Kingdom (UK) has a long history of volatile housing market cycles. Even so, the upswing from the mid-1990s to the global financial and economic crisis that started in 2007 has been exceptional, bringing house prices to unprecedented levels in relation to incomes and rents. These developments can be seen as a manifestation of a global credit boom with low interest rates and loose credit conditions, but have been reinforced by UK-specific factors, notably regulatory obstacles to the expansion of housing supply and a sophisticated mortgage market, which played a key role in a feedback loop between the housing market and the wider economy. The global crisis hit a housing market which was already losing momentum and triggered significant falls in house prices and an abrupt tumble in construction activity. Several mortgage lenders, which were overly reliant on volatile short-term financing had to be rescued by the government when international money markets seized. The Bank of England lowered its policy rate to an exceptionally low level, which supported heavily indebted households, who in their majority hold variable rate mortgages. Mortgage arrears and possessions have remained lower than during the previous downturn in the early 1990s. Real house prices, supported by tight supply and low mortgage rates have rebounded and stabilised at about 15% below their peak level. But housing starts remain about 40% below their pre-crisis level. A hesitant recovery, characterised by declining real incomes, fairly high unemployment and economic uncertainties, is weighing on housing demand and prices. The short-term outlook for house prices and construction depends essentially on the speed of the economic recovery and interest rate developments. In a longer perspective, structural obstacles to a healthy housing market, which were already evident before the crisis, are still present. Restoring the ability of the system to respond to housing needs will require improvements in policy settings, in particular regarding land-use planning, taxation, mortgage market regulation and social and subsidised housing.

## 2. The boom years and the build up of imbalances

From the mid-1990s to 2007, real house prices in the United Kingdom were multiplied by more than two and a half, which was among the sharpest rises in the OECD (Figure 1). Demand for housing was fuelled by strong income growth, an increase in the number of households resulting from the declining size of families and immigration, and favourable financing conditions, as interest rates declined and lending standards were loosened. Excessively restrictive land-use planning regulations left supply unresponsive to demand, pushing prices up. While many observers described the surge in house prices as a bubble, a large part of it can be explained by the above-mentioned fundamentals, even though prices seem to have overshoot their long run equilibrium level by around 10% at the peak of the market.<sup>16</sup> Such overshooting is to be expected, since house price expectations are, at least to some extent, backward looking. In particular, households fearing being priced out of the market tend to boost demand during expansions.

Even though the upswing in house prices during the first part of the 2000s hardly can be characterised as a bubble in the sense of a pure speculative phenomenon, it was nonetheless unsustainable. The housing boom was part of an economic expansion marked by a build up of economic and financial imbalances. Low mortgage rates,

Figure 1 ► Real House Prices (1995=100)



Source: OECD and national sources

abundant credit and robust income growth contributed to driving housing demand and prices higher. The financial accelerator amplified the cycle: rising asset values, especially housing prices, generated wealth, which was used as collateral to increase borrowing, leading to an expansion in private consumption and demand for assets and thus higher asset prices, and so on, until the credit crunch triggered a sharp reversal.

The macroeconomic and financial environment was particularly favourable. Low inflation allowed accommodative monetary policy and large trade surpluses in emerging economies and oil and commodity producers generated abundant savings, which were largely recycled in western financial markets, maintaining long-term interest rates low. In addition to lowering interest rates, abundant capital raised risk appetite. Risk premiums on a wide range of assets shrank dramatically and investors chasing yield were increasingly willing to buy securitised loans, including residential mortgage-backed securities (RMBS) and more sophisticated and opaque structured products and collateralised debt obligations (CDOs). The most spectacular manifestation of the lending spree financed through securitisation was the dramatic expansion of the US subprime mortgage market, but UK mortgage lenders also became increasingly reliant on wholesale funding, provided in large part by foreign leveraged investors, mainly from the United States. The gap between domestic UK bank lending to non-banks and domestic deposits rose from insignificant at the turn of the century to £738 billion in 2008. Between 2000 and 2007, the total amount of outstanding RMBS and covered bonds increased from £13 billion to £257 billion, that is from 2.5% to 21.5% of the UK mortgage stock.<sup>17</sup> Favourable financing conditions and high demand for housing loans incited mortgage lenders to develop their activity rapidly, building risky business models involving a large maturity mismatch between assets and liabilities. The most prominent case was Northern Rock, which increased its loans by over 30% a year between 2001 and 2006.

Easy access to mortgages combined with income growth, high employment and demographic factors boosted housing demand, pushing housing prices

<sup>15</sup> The views expressed in this article are those of the author and do not necessarily reflect those of the OECD. This article is based on C. André, "Improving the functioning of the housing market in the United Kingdom", OECD Economics Department Working Papers, No. 867, which provides further details and references. The author would like to thank Henrik Braconier for useful comments and suggestions and Caroline Purdey for providing valuable data.

<sup>16</sup> See G. Meen (2008), "Ten New Propositions in UK Housing Macroeconomics: An Overview of the First Years of the Century", *Urban Studies* 45 (13), pp. 2759-2781 and J. Muellbauer and A. Murphy (2008), "Housing markets and the economy: the assessment", *Oxford Review of Economic Policy*, Vol. 24, No. 1, 2008, pp. 1-33.

<sup>17</sup> See "The outlook for mortgage funding markets in the UK in 2010-2015", Report by the Council of Mortgage Lenders, January 2010

up, a movement reinforced by expectations of further price increases as the expansion gained momentum. Rising housing prices propagated to the wider economy. Household savings fell, as net wealth appears to be a significant driver of consumption (Figure 2, first panel). The link between housing wealth and consumption is stronger in the United Kingdom and other English-speaking countries than in continental Europe, except the Netherlands.<sup>18</sup> Sophisticated mortgage markets allow households to translate growing housing wealth into higher levels of private consumption. Housing wealth provides collateral to secure additional borrowing, which finances increases in consumption, though it also substitutes for more expensive categories of debt (e.g. personal loans or credit card debt). Housing equity withdrawal represented up to 8.5% of after-tax household income in late 2003 (Figure 2, second panel).<sup>19</sup> Strong private consumption, along with expansionary monetary and fiscal policies, raised gross domestic product (GDP) growth and employment, feeding housing demand and pushing prices up further.

Residential mortgage debt rose from less than 50% of GDP in 1998 to 85% in 2007, increasing the vulnerability of households to adverse housing market or economic developments. However, in 2007 residential assets amounted to 290% of GDP, leaving the household sector with a substantial equity buffer. According to the Council of Mortgage Lenders, 42% of housing wealth was owned outright with the rest by mortgage borrowers. But the latter held on average a 48% free equity share in their properties. Lending standards were relaxed somewhat, with an increasing share of non-documented, interest-only and high loan-to-income or loan-to-value ratio mortgages. Subprime lenders, including non-banks, engaged in “equity lending”, focusing more on the equity in the property than on the ability of the mortgagor to repay the loan. Nevertheless, lending standards were loosened far less than in the United States.

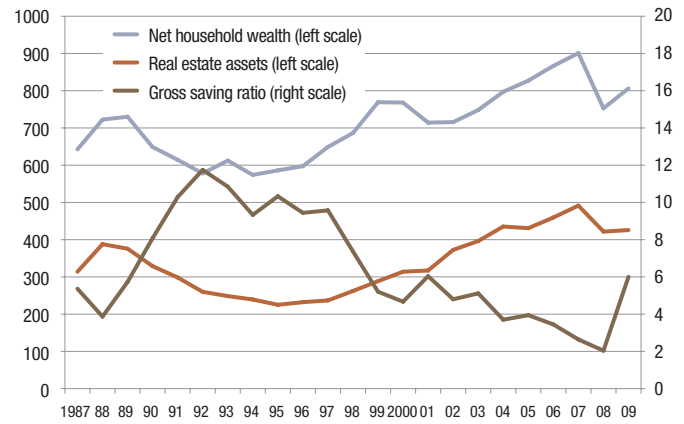
While housing demand expanded rapidly, tight supply constraints, especially related to land-use planning regulations, prevented a strong supply response. This is in marked contrast with developments in countries like Iceland, Ireland and Spain and some US States (e.g. Florida, California). Several Nordic countries also experienced large rises in residential investment, but from historically low levels in the mid-1990s, following a deep economic recession (Figure 3).

The price increases due to buoyant housing demand and tight supply resulted in a sharp deterioration of affordability, which stalled the increase in the homeownership rate by 2003. The ratio of median house prices to median annual employee earnings in England rose from 3.5 in 1997 to 7.2 at the peak of the market in 2007, well above the long-term average of around four. In London and the South, median prices represented more than eight times income (Figure 4). The impact of high house prices on affordability has been partially offset by the low level of interest rates. Total mortgage repayments as a percentage of income rose during the boom, but remained well below the levels reached in the early 1990s (Figure 5, first panel). The easing of lending standards, including the development of subprime loans, also improved access to housing finance. Nevertheless, the deposit put down by buyers has increased substantially, even before the onset of the financial crisis. While existing homeowners could use their accumulated housing wealth to move up the housing ladder, providing the required deposit has proved increasingly difficult for first-time buyers, with their deposit increasing from about 10% of the purchase price in 1995 to around 20% in the mid-2000s (Figure 5, second panel). The share of first-time buyers as a percentage of total loans for house purchase has declined since the mid-1990s (Figure 6). Even though factors such as later entry into the labour market because of longer education and later family formation have contributed to this trend, there is no doubt that reduced affordability has been decisive.

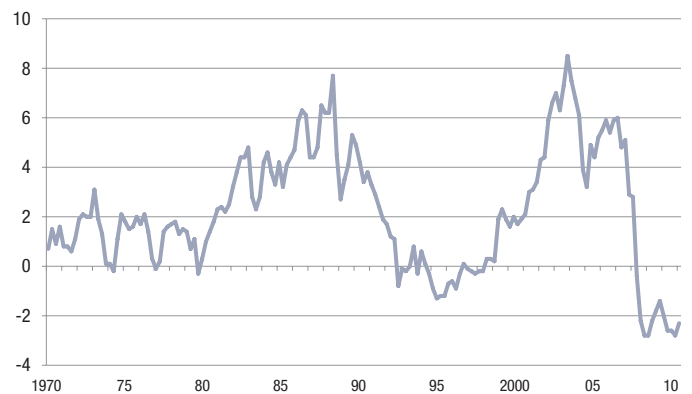
Furthermore, as the private rental market expanded, in many places renting has become more affordable than buying. While price increases have made it increasingly difficult for first-time buyers to enter the market, expectations of capital gains boosted buy-to-let investments since the early 2000s. The number of private rented dwellings rose from just under 2.5 million units in 2000 to almost 3 million in 2006, to house nearly 14% of households. Rent increases have been roughly proportional to that in household income, leaving the rent-to-earnings ratio fairly stable since the early 2000s, at around 20% for the England average and 25% for London. Even so, nearly a quarter of private renters are spending more than half of their income on rent. Furthermore, the quality of rented accommodation is often a concern, with nearly half of private rented properties falling below the decent homes standard.

**Figure 2** ► Wealth and Housing Equity Withdrawal (% of household disposable income)

HOUSEHOLD WEALTH AND SAVINGS

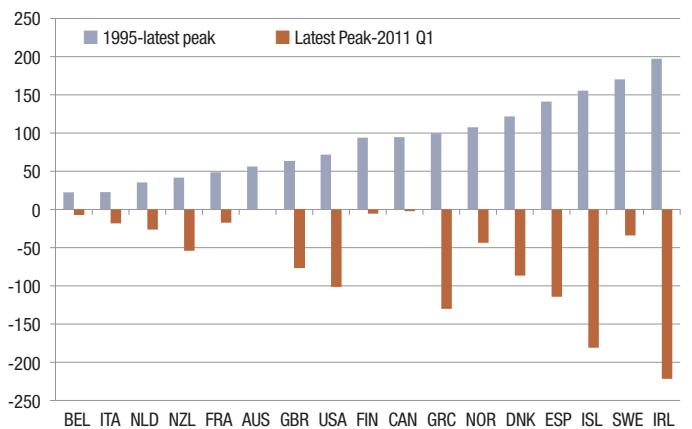


HOUSING EQUITY WITHDRAWAL (% OF HOUSEHOLD DISPOSABLE INCOME)



Source: Office for National Statistics, Bank of England and OECD Economic Outlook database

**Figure 3** ► Change in residential investment (volume, % of 1995 level)

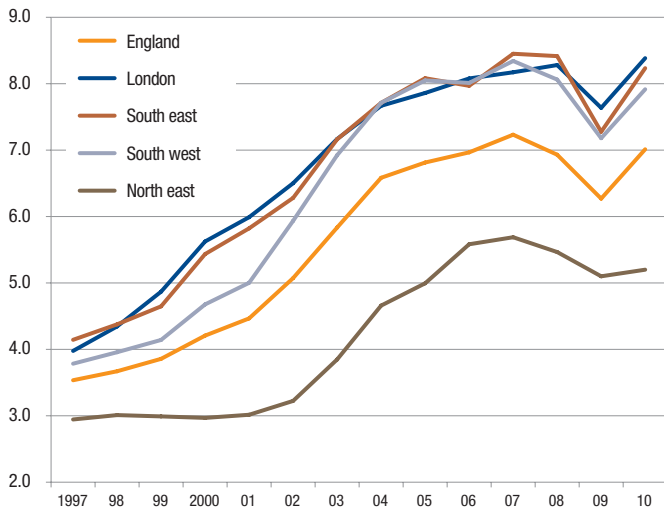


Source: OECD Economic Outlook database

<sup>18</sup> See P. Catte, N. Girouard, R. Price and C. André (2004), “Housing Markets, Wealth and the Business Cycle”, OECD Economics Department Working Papers, No. 394, OECD, Paris.

<sup>19</sup> Housing equity withdrawal is new borrowing secured on dwellings that is not invested in the housing market (e.g. not used for house purchase or home improvements), so it represents additional funds available for reinvestment or to finance consumption spending (Bank of England).

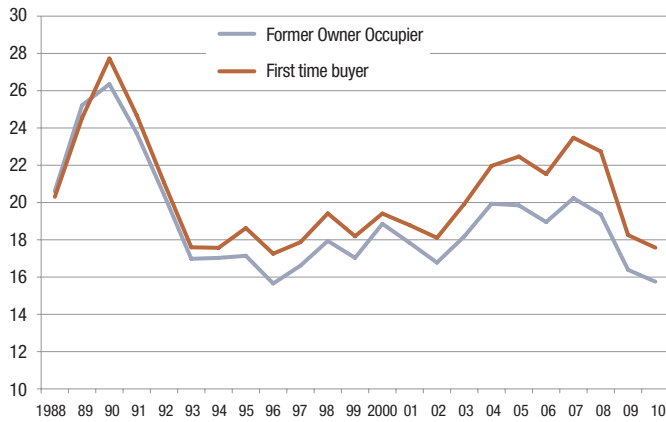
**Figure 4** ▶ Ratio of median house price to median earnings (%)



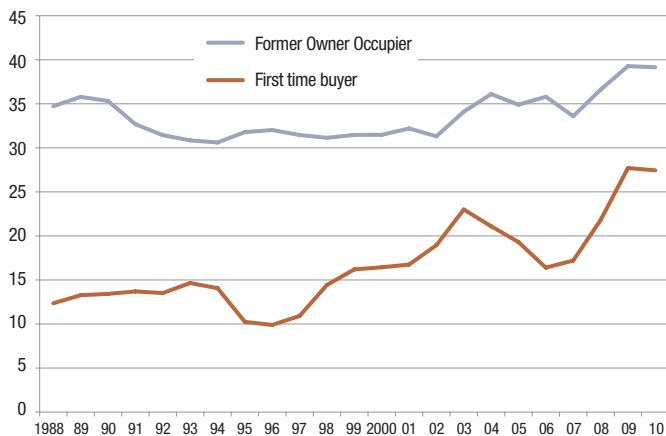
Source: Department of Communities and Local Government

**Figure 5** ▶ Financial burden on households (%)

REPAYMENTS AS A PERCENTAGE OF INCOME

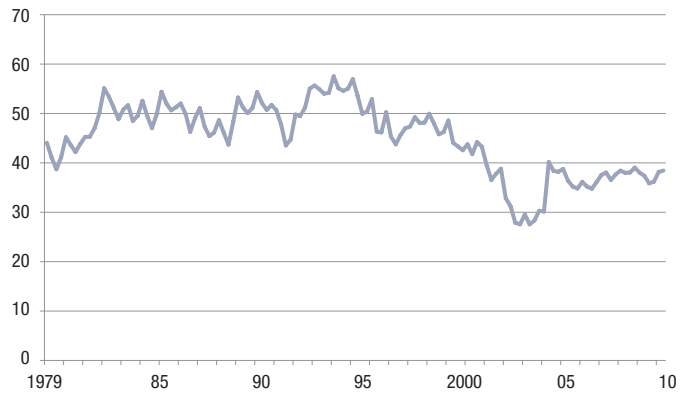


DEPOSIT AS A PERCENTAGE OF PURCHASE PRICE (%)



Source: Department for Communities and Local Government

**Figure 6** ▶ First-time Buyers' share out of total mortgage loans (%)



Source: Council of Mortgage Lenders

Deteriorating affordability has also led to an increase in demand for social housing. In 2009, there were about 1.8 million households on social housing waiting lists in England, a 70% increase over ten years. While there is some uncertainty about whether this number is an accurate reflection of housing needs, as there are no qualifying criteria to register, it is clear that low affordability is putting pressure on social housing. Since 1997, the policy focus has been on improving the quality of social housing and the number of households living in non-decent social homes has been reduced by more than a million, about half of total. Meanwhile, new additions to the social housing stock have failed to keep pace with needs. The 2007 Communities and Local Government Housing Green Paper estimated the need for new social rented homes at 50,000 per year, nearly 50% above the 1997-2009 average addition. The new government has committed to delivering up to 150,000 new affordable homes by 2014-15. Despite housing shortages and low affordability, policies have been successful in containing homelessness, in contrast to much of the OECD area.

### 3. The global financial crisis

The financial turmoil started with the collapse of the US subprime mortgage market and rapidly spread around the world. After housing prices started to fall in some US states in end-2006, default rates on subprime mortgages soared, triggering the closure of several mortgage lenders and a sharp correction in the market for mortgage-backed securities. The problems were compounded by the fact that subprime loans were packaged into complex financial instruments, which were difficult to value in a troubled market environment. In August 2007, after a major French bank (BNP Paribas) suspended withdrawals from three of its investment funds, which it considered impossible to value due to the evaporation of liquidity in certain market segments of the US securitisation market, interbank markets became dysfunctional. In this context, Northern Rock, which was highly dependant on money market financing, had to resort to emergency funding from the Bank of England. This prompted the first bank run in the United Kingdom in over 140 years and Northern Rock was eventually taken into government ownership. As the crisis intensified after the collapse of the US investment bank Lehman Brothers in September 2008, another mortgage lender, Bradford and Bingley, had to be nationalised. Furthermore, Lloyds TSB absorbed HBOS to create Lloyds Banking Group, which is now under partial state ownership. The concentration of the mortgage market increased markedly during the crisis. The share of the top six lenders in new loans rose from about two-thirds in mid-2007 to more than 90% in mid-2010.

The credit squeeze and the uncertainty about the economic outlook produced a fall in housing transactions and prices. The number of transactions dropped from more than 1.6 million per year before the crisis to less than 900,000 in 2009. Real housing prices declined by about 15% between end-2007 and mid-2009, before recovering somewhat as tight supply and low mortgage rates provided support. Construction contracted very sharply. The number of housing starts plummeted

from over 220,000 to little more than 100,000. The production capacity and supply chains of house-builders have been affected and most companies are concerned with high debt levels and cash-flow management. Tight credit conditions weigh particularly on small and medium enterprises. Low interest rates have mitigated the problem for the firms that have retained access to credit.

Although household finances have been affected by the housing downturn and deteriorating economic conditions, arrears and possessions have so far been much lower than most observers had feared. The rate of mortgages more than 3 months in arrears rose from around 1% to a peak of 2.5% in the second quarter of 2009, before slowly starting to recede. The number of possessions rose from a low point of fewer than 10,000 per year in 2003 and 2004 to 46,000 in 2009 (about 0.4% of mortgages), but declined to 36,300 in 2010. This is much lower than in the early 1990s, when the rate of mortgages more than three months in arrear and possessions reached, respectively, around 6% of mortgages and 75,500 (nearly 0.8% of mortgages). It is worth noting, even though this segment of the market is relatively small, that arrears are particularly high for specialist (non-bank) loans, which expanded steadily during the boom, following a business model based on “equity lending”. From an international perspective, mortgage arrears in the United Kingdom appear to be much higher than in Australia and Canada, somewhat lower than in Spain, but much lower than in Ireland and the United States. The proportion of households with mortgages in negative equity also remained limited in the United Kingdom, peaking at around 10% in mid-2009, compared with about 25% in the United States in early 2010. Furthermore, the amounts involved were relatively small.

An important factor behind the resilience of households has been the fall in interest rates. As variable rate mortgages are predominant in the United Kingdom, sharp drops in short-term interest rates have significantly reduced the burden of mortgages. Low interest rates have also led lenders, in part encouraged by government initiatives, to adopt generous forbearance policies in the current downturn. Government schemes (Support for Mortgage Interest, Mortgage Rescue Scheme and Homeowners Mortgage Support) also provided support, though the number of households involved remained small.

However, households remain vulnerable. Increases in interest rates, a further deterioration in the labour market or renewed falls in house prices could lead to financial difficulties for many. In 2006-07, around 40% of the lowest income households (with less than GBP 1,000 disposable income per month) were spending more than half of their disposable income on their mortgage. Low income households are also the most vulnerable to unemployment.

#### 4. The housing market in a tough macro-economic and financial environment

The prospects for the housing market are closely related to the wider economic outlook, which at this juncture is highly uncertain. The UK economy, facing headwinds from fiscal retrenchment, private sector deleveraging and uncertainties in the global financial and economic environment, is growing at a very slow pace. With inflation pushed up by the depreciation of the pound, increases in energy and commodity prices and indirect tax hikes, real household income is shrinking. Mortgage rates remain low, but credit conditions have been tightened considerably since the financial crisis, as a result of a shortage of funding, stricter financial regulation and increased capital requirements for financial institutions, weak economic and employment prospects and concerns about the evolution of housing prices. In particular, mortgages Loan-to-Value (LTV) ratios now rarely exceed 90%. As housing price falls have so far been limited, lower LTV ratios sharply restrict access to homeownership. According to Council of Mortgage Lenders calculations, first-time buyer deposit as a percentage of median income has risen from about 40% in early 2007 to around 90% since 2009. Hence, first-time buyers who do not benefit from intergenerational transfers are increasingly excluded from homeownership.

With declining household real income, fairly high unemployment and tight credit conditions, stagnating or slightly declining housing prices are hardly surprising, even though limited supply and low mortgage rates provide some support to prices. Continued weakness in the economy, a fall back into recession and rising unemployment would generate further downward pressures on housing prices. The Bank of England has so far resisted tightening monetary policy, as above target inflation could mainly be attributed to temporary factors and significant risks to the growth outlook remained. If inflationary pressures proved to be more entrenched than initially thought, the Bank would need to raise policy rates, which would be damaging for the housing market, especially given the high proportion of variable rate mortgages.

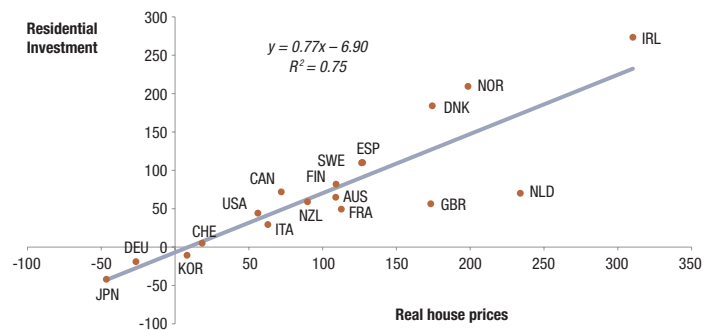
While benign developments on the growth and interest rate front would allow a revival of the housing market, reforms aiming at increasing stability and making the system more responsive to housing needs would in any case be desirable.

#### 5. Looking ahead: conditions for a healthy housing market

Structural features of the UK housing market make it volatile and increasingly unable to provide affordable accommodation. Housing market volatility spills over to the wider economy, amplifying business cycles. Housing-related activity is a large and volatile part of the economy and construction is labour intensive and hence contributes heavily to swings in employment. Fluctuations in house prices have a significant impact on private consumption. Housing market volatility can threaten financial stability. Supply and demand-side policies could help avoid the repetition of the damaging booms and busts of the past decades and restore affordability.<sup>20</sup>

Supply needs to be more responsive to demand. Despite rapidly rising prices, net additions to the dwelling stock in England since the late 1990s have not kept up with the increase in the number of households, even though household formation itself is likely to have been constrained by housing shortages. The United Kingdom stands out within the OECD, together with the Netherlands, as having had large real house price increases but only fairly modest growth in housing investment (Figure 7). Estimates of housing requirements are very uncertain, but there is widespread agreement that more housing is needed and that the land-use planning system is the main obstacle to housing development, as demonstrated by the *Barker Review*.<sup>21</sup> Physical constraints on the availability

Figure 7 ► Real House Prices and Residential Investment, % change over the latest cycle



Source: OECD Economic Outlook database and national sources  
 Note: The latest cyclical phase corresponds to the expansion that ended in 2006-2007 in most countries. For Japan and Germany, it corresponds to the ongoing downturn.

<sup>20</sup> For other housing reform proposals, see M. Stephens, “Tackling housing market volatility in the UK”, Joseph Rowntree Foundation, May 2011.

<sup>21</sup> K. Barker, *Barker Review of Land Use Planning*, Final Report – Recommendations, London, December 2006

## Recent developments in the UK housing market

of land are limited, notwithstanding England's high population density, especially in the South. The percentage of developed land in England and Wales is about 13%. Green Belts aimed at preventing urban sprawl cover around 13% of English land and part of them has limited environmental value. The Government Office for Science estimates that the land take corresponding to the 2007 Department for Communities and Local Government objective of 240,000 new buildings per year would be 0.06% of total land in England.<sup>22</sup>

The government elected in May 2010 is carrying out a significant reform of the land-use planning system, replacing top-down building targets, which met strong resistance at the local level, with incentives for local communities to allow development.<sup>23</sup> Local planning authorities will be responsible for assessing local housing needs and identifying suitable areas where land can be released to meet these needs. The New Homes Bonus, a central government transfer to local authorities introduced in April 2011, aims at promoting growth by providing local authorities with the means to mitigate the stress on public services generated by population increases. But it is uncertain whether the incentives will be sufficient to overcome the resistance of NIMBYs.<sup>24</sup> The government is taking measures to release public land for construction, but is not reconsidering Green Belts. Yet, replacing Green Belts by planning restrictions that reflect environmental designations rather than location around urban areas would provide the opportunity to free up more land in areas where it is needed.

While improving supply responsiveness is key to avoiding shortages and sharp price increases once demand picks up, demand-side measures could also dampen cyclical fluctuations. Relating property taxation to market values would create an automatic stabiliser, containing demand when prices increase. Ongoing reforms in financial regulation aiming at reducing the pro-cyclicality of the financial system should contribute to strengthening the mortgage market. Mortgage lenders need to find stable funding sources to end their dependence on temporary government liquidity and guarantee schemes and to be able to lend to borrowers with sufficient guarantees. As the retail deposit base is insufficient, RMBS and covered bonds may provide the best financing instruments. To ensure a sustainable revival of securitisation, stringent norms should be applied. Lenders should be required to keep a significant share of the risk on their balance sheet to avoid problems resulting from asymmetry of information between the issuer of the security and the investor. The characteristics of underlying loans should be fully transparent to investors. Whether the loans are securitised or not, maintaining sound lending standards is crucial. The stability of the mortgage market ultimately rests on the ability of lenders to properly assess the repayment capacity of borrowers, taking into account the possibility of adverse housing market or macroeconomic developments.

Finally, as affordability is likely to remain low for sometime given the current supply shortage, supporting poorer households through adequate housing benefits and social housing provision will remain essential.



<sup>22</sup> *Foresight Land Use Futures Project*, Final Project Report, The Government Office for Science, London, February 2010.

<sup>23</sup> See "Draft National Planning Policy Framework", Department for Communities and Local Government, July 2011.

<sup>24</sup> "Not In My Back Yard", referring to local residents resisting house building in their local area.



# Housing market stability, housing market characteristics and savings decisions: a German spotlight <sup>25</sup>

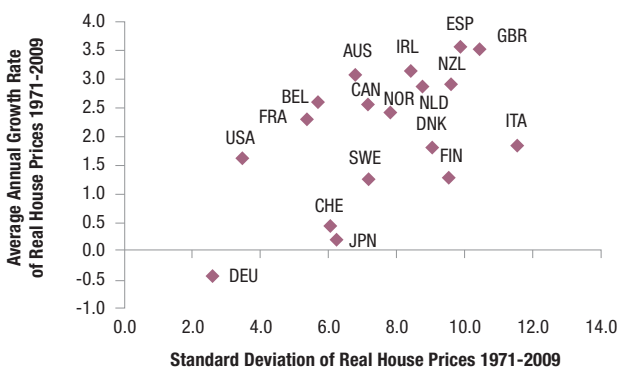
By Dr Peter Westerheide, Centre for European Economic Research (Zentrum für Europäische Wirtschaftsforschung)

## 1. Introduction

The experience with house price bubbles and high house price volatility in many international housing markets has put a new focus on the importance of housing finance systems for the stability of housing markets. Particularly in the German housing market restrictive financing conditions and the absence of “innovative” mortgage products (such as interest-only mortgages) were for a long time blamed as underlying causes for low home ownership rates. This discussion has reversed rapidly after the outbreak of the subprime crisis. Now conservative German financing standards are treated as a role model for international lending standards while innovative mortgage products are criticised for their adverse incentives. However, financing structures are one particular element of national housing systems that contributes to stability probably only within a given institutional framework. As will be discussed in the following, conservative financing standards might imply financial barriers to home ownership which could as well have a destabilising impact on house price developments in another than the German market setting.

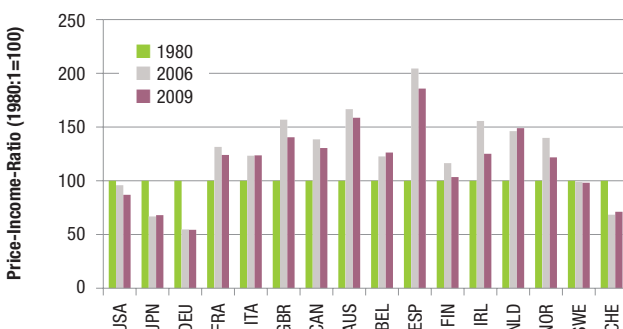
The subsequent article is structured into the following sections. The second section describes the development of German house prices and rents in international comparison.

**Figure 1** House Price Volatility and Average Growth of Real House Prices in international comparison (%)



Source: OECD, own calculations

**Figure 2** Price-to-Income Ratio in international comparison



Source: OECD, own calculations

The third section gives an overview over aspects of the institutional framework that might contribute to housing market stability in Germany. In the fourth section, the potential role of the down payment constraints is discussed. The final section concludes.

## 2. The development of German House Prices in International Comparison

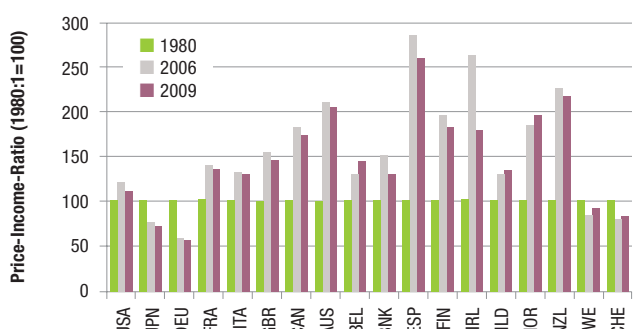
As Figure 1 shows, German house price developed in the past quite differently from other national housing markets. First of all, real house price growth was extraordinarily low with an average annual growth rate of -0.4% in the period from 1971 to 2009. But not only house price inflation was moderate, but also price volatility. On a quarterly basis the German housing market showed the lowest volatility of all OECD countries – although these results have to be interpreted with some qualifications since the underlying price indicators for the German market are appraisal based and therefore tend to be smoothed. These indicators cannot be compared directly to transaction based indicators which are used in a number of other countries. Other German housing price indices than those used in the OECD calculations show rather heterogeneous and also more volatile price developments. But even taking this into consideration, it can be stated that house price developments in the German market were surprisingly moderate and showed a high degree of stability over a long period of time.

As yet indicated by the negative real growth of German house prices, housing affordability also increased considerably. Germany is one of the few countries where the price-to-income ratio decreased substantially since 1980 (see Figure 2). An unusual development can also be stated for the price-to-rent ratio, indicating that renting became increasingly less attractive over time because nominal rents increased less than nominal house prices (see Figure 3).

## 3. The institutional framework of the German housing markets and housing market stability

The unusual stability and low growth of German house prices cannot be explained by a single factor but by the interaction of institutional factors and the general macroeconomic

**Figure 3** Price-to-rent ratio in international comparison



Source: OECD, own calculations

<sup>25</sup> It is pointed out that the views expressed in the article are those of the author and do not necessarily reflect those of the EMF and its member institutions.

development. There are a number of fundamental economic reasons for the low growth of German house prices, in particular the moderate growth of real disposable income of private households, comparatively high real interest rates and low population growth<sup>26</sup>.

A particular feature of the German housing market is the low home ownership ratio. As Table 1 shows, less than half of the German private households are home owners. Furthermore, there was not much change in the ownership ratio over the last two decades in the western federal states. Only in the former German Democratic Republic home ownership rates increased substantially as a result of the economic recovery process and the assimilation of living standards in the western and the eastern federal states.

**Table 1** ▶ Development of Home Ownership Ratios in Germany, %

	GERMANY	WEST GERMANY	EAST GERMANY
1993	39.0	45.0	19.0
1998	40.3	43.6	25.9
2003	43.0	45.6	31.7
2008	43.2	45.7	32.5

Source: Statistisches Bundesamt, 2009. East Germany including East Berlin. Data refer to homeowners as percentage of all private households

However, a detailed analysis of the socio demographic structure of home owners shows some dynamics even in West Germany. Over the last twenty years, we can observe a rather strong increase of home ownership rates among elder households. On the contrary, home ownership rates among younger households decreased in this period of time. While rising rates of home ownership among the elderly might be explained by income effects it is hard to explain lower ownership rates among the younger. Anecdotal evidence suggests that longer education periods and later start of household foundation, but also increasing need for flexibility and the relative ease of weekly remote commuting of partners contribute to this. Due to the fact that Germany offers a number of attractive office centres (such as Berlin, Düsseldorf, Frankfurt, Hamburg, Munich, and Stuttgart), many young and highly qualified urban professionals commute weekly between their own rented apartment and that of their partners.

High-speed train connections and well-developed urban rental markets facilitate these arrangements. In contrast to other countries the rental market in Germany is not focusing on households with low or medium incomes. On the contrary: the German rental market provides an exceptionally broad range of housing qualities for all income groups<sup>27</sup>. An analysis of socio demographic structures of tenants supports these findings. Incomes of home owners and tenants are significantly different, but the differences are nevertheless substantially smaller than in most other countries. A comparison of disposable incomes shows that household incomes of tenants amount to some 64% of the average incomes of owner-occupiers. Controlling for household sizes differences are much smaller and are in an interval between roughly 70 and 80% for the most frequent household types. Housing provision is also very different only at first glance: while overall floor space available to tenants is slightly more than 60%, space per person is around three quarters of that of an owner-occupier.<sup>28</sup>

## 3.1 Rental Market Regulation

Even if it is hard to prove empirically it can be assumed that the strong regulation on the private rental housing market has contributed to house price stability in the past. At least two transmission channels from rental market regulation to house price stability can be imagined: first of all, households with low and volatile incomes, but also those who need to stay flexible for their job, are not required to purchase (and probably resell) houses. Turnover on the private housing market is comparatively low, the phenomenon of churning (fast selling and reselling of houses) in residential estate is nearly unknown among private investors. Secondly, long lease contracts in the private rental market and rather tight limits to rent increases let rents for sitting tenants – and implicitly also house prices which are connected to the net present value of rents – grow only on a moderate pace.

Ownership change does not invalidate an existing lease contract, which is binding for the buyer of a house. Lease contracts in the residential property market are usually unlimited, therefore no regular renewal and no renegotiation of the rent after a fixed period is required. Protection against eviction is also strong. It is simply impossible to evict a tenant just in favor of another one who pays a higher rent. Landlords generally have to prove a “legitimate interest” to get rid of a tenant. Eviction of tenants is only allowed if rents are not paid by at least two months, or other contractual obligations are violated (i.e. subletting of the dwelling without asking the landlord for permission, damaging interior etc.). Even if landlords would like to reclaim their property for their own use they would have to prove a legitimate interest, i.e. by proving that their current rent payments are substantially higher than the rent they yield from their tenants.

Rent increases are strictly limited: the rent of sitting tenants must not be increased by more than 20% within three years and not above the average local rent. The average local rent index is calculated as the average rent from new contracts or contracts with newly agreed rents from the previous four years. Rents for new contracts are in principle freely negotiable as long as they do not exceed the limit to usury. They are only regulated if construction or purchase of dwellings were subsidised, i.e. in order to create housing space for certain target groups (elderly, handicapped etc). Further rent increases are allowed to amortise refurbishment costs. According to current regulation, 11% of the costs for energy saving refurbishment may be rolled over to the annual rent. However, these rent increases limit the room for further normal rent increases because the local rent index level may not be exceeded.

## 3.2 Financing System

Financial factors add to these institutional and volatility reducing factors in the rental market. Financing structures in the German housing market tend to be conservative. Owner occupiers usually take out a first mortgage covering no more than 60% of the collateral value – which is around 50% of the transaction value. A second mortgage is often provided by building savings societies, covering up to 80% of the collateral value (70% of the transaction value). The residual equity stake of the investor is usually at least 25 to 30% of the transaction value. Interest rates are usually fixed for a period of 10 years, in times of low interest rates even longer.

The German conservative lending standards in the private housing market are not easily explained: refinancing of first mortgages through covered bonds (Pfandbriefe) certainly contributes to that. Pfandbrief refinancing requires first mortgages with a Loan-to-Value ratio of no more than 60% of the lending value of the mortgage collateral. However, this cannot perfectly explain the low degree of leverage in the German housing finance system because the largest part of the total mortgage volume is refinanced by other funding tools such as deposits and other bank bonds<sup>29</sup>.

Similarly, conservative financing standards are likely to prevail among amateur landlords in the private rental sector as well, even if a higher leverage for investments in rental housing compared to owner-occupied housing would be rational – because paid interest is tax-deductible. A survey among private landlords, which was conducted by the Technical University of Dresden in 2005, revealed that dominant investment motives are not of a speculative nature. According to this survey, the main incentives for investments in the housing stock were old age retirement provision and risk-averse safe haven investment attitudes. Tax motives were on the contrary inferior, at least in the opinion of the surveyed landlords at least in West Germany.

## 4. Down payment constraints and the stability of housing markets

While it is easy to imagine that a broad and strongly regulated rental market contributes to overall tranquillity and price stability on the housing market, it is harder to explain why conservative financing standards play a positive role. An obvious argument is that home owners with comparatively low interest and repayment

<sup>26</sup> For further details, see Kholodilin, K.A., Menz, J.O. and Siliverstovs, B. (2010), What drives housing prices down? *Jahrbücher für Nationalökonomie und Statistik* 230 (1) (February): 59-76.

<sup>27</sup> For a comprehensive description, see Voigtlaender, M. (2009), *Why is the German Homeownership Rate so Low?* in *Housing Studies*, Volume 24, Issue 3 May 2009, pages 355 – 372.

<sup>28</sup> Source: Own calculation based on the German Socio-Economic Panel.

<sup>29</sup> See Voigtlaender, M., Demary, M., Schindler, F. and Westerheide, P. (2010), A European Internal Market for Housing Finance. *Schriftenreihe des Instituts für Städtebau, Wohnungswirtschaft und Bausparwesen*, Nr. 74: 41

obligations for their mortgage debt are less vulnerable to exogenous income shocks than highly leveraged households. Also the prevalence of fixed interest rates tends to reduce the sensitivity against interest rate shocks. However, as far as high down payment requirements are concerned, their impact on housing markets is ambiguous in theory. This has been shown in a number of papers discussing the existence of financial accelerator mechanisms in housing markets<sup>30</sup>. With high down payment constraints a substantial share of private households tends to be credit constrained. It is demonstrated that markets in this situation are excessively sensitive to changes in the demand of first time home owners<sup>31</sup>.

If the demand of first time prospective first time house buyers grows – i.e. as the consequence of an exogenous income shock –, prices in the respective housing market segment markets rise, which in turn leads to capital gains of constrained existing home owners. These capital gains lower the credit restrictions of the latter group, many of them might now trading up to better houses, as they profit from multiplier effects by leveraging their capital gains. To give an example: in the case of an equity requirement of 20%, price increases of existing homes imply an additional borrowing capacity of 80% for existing home owners. Following this train of thought, markets with unconstrained buyers (i.e. without any down payment constraint) should show the lowest volatility because no multiplier effects due to exogenous income shocks can occur.

Any increase in down payment constraints has two countervailing effects: it increases the number of constrained buyers (the precondition for the existence multiplier effects) and lowers loan-to-value ratios (LTV) (which determine the size of multiplier effects) at the same time. The most important facts following from these housing market conditions are that house prices tend to increase faster than incomes, and income shocks to first time home owners are particularly important<sup>32</sup>. House prices in different market segments are correlated, but as a consequence of multiplier effects, prices of typical FHO properties (low/medium standard apartments, terraced houses) are less volatile than typical prices of properties in higher market segments. The impact of higher down payment constraints on price stability of housing markets is therefore ex ante unclear. Empirical evidence is pointing to a positive correlation between leverage and volatility, showing that a higher incidence of high loan-to-value households increases housing market volatility (for 44 US cities)<sup>33</sup>. This is confirmed for the UK, based on 147 districts in the British Household Panel Survey from 1993 to 2002<sup>34</sup>.

This already points to positive impact of lower LTVs and – *vice versa* – higher equity requirements on price stability. Furthermore, even taking the controversial theoretical predictions into account it can be argued that equity stakes are not exogenously determined because higher equity requirements might have a positive impact on savings of prospective home owners. This partial effect would unambiguously stabilise housing markets because it tends to reduce entry barriers for home owners.

Here again some theoretical considerations are indispensable. Following the assumption that households prefer smoothing consumption over the life cycle they should tend to borrow in times of low incomes and repay their debt in periods with high incomes. The purchase of a home is in principle a good instrument for consumption smoothing because the house itself can serve as collateral. Consumption smoothing becomes more complicated if borrowing constraints, i.e. down payment requirements for the home, are involved. In this situation the household has to assess the advantages of owner occupation against the disadvantages of the distortion of the inter-temporal allocation of savings and consumption. Only if planned savings are anyway higher than required down payments, no distortion occurs.

The reaction to higher down payment constraints will be influenced inter alia by the rate of time preference for current non-housing consumption. The more households prefer present consumption the less they will react to higher down payment constraints. A further role play cost advantages of owner occupied housing, determined by the price/rent differential, immaterial advantages of owner occupied housing (such

as: autonomy), the availability of comparable housing quality in the rental market, the household income, which determines its natural rate of capital accumulation, and the individual risk aversion. The impact of down payment requirements on savings depends in particular on the inter-temporal elasticity of current to future non-housing consumption and on the intra-temporal elasticity of housing to non-housing consumption<sup>35</sup>.

These findings are to some extent helpful to form expectations for the outcome of an empirical analysis for the German market: the German rental market provides an exceptionally broad range of housing qualities. This gives private households flexibility to adjust their housing consumption in the life cycle and increases the elasticity of substitution between housing consumption and non-housing consumption. At the same time, German households are well known for their high savings ratio (of more than 10% of disposable income on the average). This implies a rather high inter-temporal elasticity of consumption. Therefore we have countervailing effects of comparatively high intra-temporal and inter-temporal elasticities of substitution at work, and the outcome on the individual savings ratio is ex ante unclear.

Preliminary results of micro econometric analyses, based on current data of the 2007 German Socio Economic Panel, do not point to a positive reaction of wealth accumulation in reaction to higher down payment requirements in the German market.<sup>36</sup> This analysis suggests that higher house prices have a negative impact on savings for a cross section of young renter households in Germany. In quantitative terms, the negative impact seems to be substantial. Moreover, the probability of dedicated savings for a home purchase declines markedly. This behavior can partly be explained by low user cost advantages of home ownership compared to renting, particularly because quality differences between both rental and ownership markets are minor – at least compared to countries where rental markets are dominated by social housing. Similar analyses for the UK have yielded average results that are not too different from the German ones. This comes as a surprise because the UK rental market offers less opportunity for long term leases than the German one. However, if different time periods are analysed, it can be observed that the negative impact of higher prices on savings is a recent outcome, which can be traced to mortgage market developments.

These results shed some light on the effects of higher down payment requirements on saving behavior of renters. In general, in a housing market environment with a broad rental market, higher equity requirements probably reduce the demand for owner occupied housing. This is not necessarily the case in markets under comparatively tight mortgage market conditions in countries with a less developed rental market. In this environment, higher down payments are more likely to have a positive impact on the saving behavior of renters.

## 5. Conclusion

The German housing market proved extraordinarily stable in the past. While low interest rates and easy access to mortgage market facilitated the emergence of bubbles in a number of other countries, German house prices showed only moderate growth with low volatility. This particular development has a number of possible causes, among them the broad and strongly regulated rental market and the conservative German financing system. While solid financing standards with high initial equity stakes of home buyers and fixed interest rates certainly shield home buyers from macroeconomic shocks to some extent, the impact of high down payment requirements on house price volatility is not as clear as it might seem on the first glance. In any case, housing market volatility would unambiguously be reduced if households start to save more in reaction to higher down payment constraints. While prior analysis produced inconclusive results, recent research shows that the reaction of savers to down payment constraints depends on credit market restrictiveness and the supply of rental housing opportunities as an alternative to owner occupied housing.

<sup>30</sup> For a comprehensive overview, see Almeida, H., Campelle, M. and Crocker, L. (2006), *The Financial Accelerator: Evidence from International Housing Markets*, in *Review of Finance* 10 (3): 321–352.

<sup>31</sup> See Rady, S., and Ortalo-Magné, F. (2006), *Housing market dynamics*, in *The review of economic studies* 73, Nr. 2 (April): 459 – 485.

<sup>32</sup> See Benito, A. (2006), *The down-payment constraint and UK housing market: Does the theory fit the facts?* In *Journal of Housing Economics* 15, Nr. 1 (March): 1 – 20.

<sup>33</sup> See Lamont, O., and Stein, J.C. (1999), *Leverage and House-Price Dynamics in U.S. Cities*, in *The RAND Journal of Economics* 30, Nr. 3 (Autumn): 498 – 514.

<sup>34</sup> See Benito, A. (2006), *op.cit.*

<sup>35</sup> See Sheiner, L. (1995), *Housing Prices and the Savings of Renters*, in *Journal of Urban Economics* 38, Nr. 1 (July): 94 – 125.

<sup>36</sup> See Westerheide, P. (2011), *Down Payment Constraints and Saving Behaviour of Prospective Home Owners. A Comparison of Germany and UK*, mimeo.



## Austria

By Wolfgang Amann and Elisabeth Springler, Institute for Real Estate, Construction and Housing (IIBW), Karin Wagner, Central Bank of Austria

### Macroeconomic overview

In 2010, real GDP growth reached 2.1% in Austria and recorded further increases in the first two quarters of 2011, as shown in the OeNB's April 2011 conjunctural analysis. In Q1 2011 real GDP growth amounted to 0.6%, which represented a slowdown compared to the first quarter of the previous year (3.5%). The Austrian economy is still mainly driven by positive developments in exports and, in particular, by the ongoing strong economic performance of Asian economies. Due to weak export links with Japan, the Austrian economy is not expected to feel any negative impacts from the natural disasters of March 2011. Despite fiscal consolidation, private consumption was stable due to positive developments in the labour market and continued along the trends already seen in 2009.

The construction sector still showed no recovery in 2010. Progress is only expected to come in 2011 and/or 2012 according to the OeNB's monetary policy data and Economy report of Q4 2010. Real residential construction investment decreased by 2.9% compared to 2009 and non-residential construction investment and other investment by 3%.

Compared to 2009, house prices increased strongly in 2010. With the only weak increase – of around 4% – seen in Q3 2010, house prices rose in Q2 and Q4 2010 by around 6%, leading to an annual increase of more than 5%. House prices recorded an even stronger increase when including the Capital Region of Vienna, which makes the annual price increase reach 8% in 2010 compared to 2009. According to Q1 2011 data, the gap between Vienna and the rest of Austria further widened, with a growth rate in house prices of 2.4% for Austria (excluding Vienna), and 9.6% for Vienna.

### Housing and mortgage markets

Austria has a housing stock of 4 million units with altogether 3.6 million households living in their own homes (in 2009). Slightly one quarter of the stock was built before 1945, 43% between 1945 and 1980, and one third after 1981. Vienna in particular has a large old housing stock, which is in relatively good condition.

The predominant housing tenure in Austria is home ownership associated with a single-family home (accounting for 45% of the total housing tenure). Together with 11% of apartments in condominiums, the total home ownership rate reaches 56%. As for the rental tenure, most of the stock is affordable housing at approx. 23% (Limited Profit Housing Associations and municipal housing), while only approx. 18% is private rental.

Building permits (according to estimates) decreased further in 2010 from roughly 40,700 permits in 2009 to around 39,100 in 2010. This trend is expected to also continue in 2011. Similarly, housing completions decreased from 5.5 to 5.1 units per 1,000 inhabitants.

The housing market in Austria also developed smoothly in 2010, although price differentials between the capital city Vienna and the rest of Austria have further increased. While the average national rental market only recorded marginal changes i.e. at around EUR 6.60, excluding taxes and maintenance costs), rents in the capital city Vienna increased from EUR 7.70 per square meter to EUR 7.90 per square meter. Of course, the upscale market segment recorded much higher values. It also has to be noted that capitals from western Austrian provinces such as Salzburg and Innsbruck still recorded higher market rents than Vienna. The share of variable-interest rate loans out of total housing loans is traditionally much higher in Austria than in the euro area. In 2010, 74% of new housing loans were initial fixed rate up to one year (compared to 38.2% in the euro area). After the global financial crisis, this share reached its highest level in June 2010 with 81% (compared to 43% in the euro area).

The year-on-year growth in mortgage loans to households from domestic MFIs slowed down compared to the beginning of the financial crisis, decreasing from a rate of around 7.5% in March 2008 to 2.4% in May 2010. Until the end of 2010 it remained at around 2.6%. The euro area average shows the same trend, but it is much more pronounced than in Austria (in May and September 2009, the euro area growth rates were negative, 0.5% and 0.6%, respectively). But growth in mortgage loans in the euro area recovered and, since May 2010, they reached a higher level than Austria. Interest rates on new mortgage loans dropped to 2.71% in December 2010 (they were at 5.54% in September 2008).

In Austria foreign currency loans were also very popular in 2010. In December 2010, 37% of housing loans in Austria were foreign currency-denominated. Although the proportion of foreign currency-denominated housing loans (out of total outstanding housing loans) has decreased since its peak in October 2008 (39.9%), it reached around 36% in volume terms in Q1 2011. However, this was probably mostly due to the exchange rate effect.

As regards Austria's housing policy, no changes were observed compared to 2009. The key characteristics of Austria's housing policy are still its focus on regulated (i.e. limited profit) rental housing and its financing tools. In 2010 the main emphasis was also put on state and regional supply-side subsidies, which aim at fostering social housing. Public subsidies accounted for around 0.9% of GDP out of which around 60% was spent for new construction, 25% for renovation and 14% for housing allowances. Due to the focus on the social rental sector with its generous income limits – which are high enough to allow access to this sector for households up to the 8<sup>th</sup> income decile<sup>37</sup> – a single rental market is still promoted.

In addition to these specific public funding tools, the structure and volume of the limited-profit housing sector, which are self-audited and publicly regulated, encompass 20% of the housing stock (of which 14% is rental and 6% owner occupied). Altogether the 191 limited profit housing associations manage 815,000 housing units in Austria. Taking into account the 9% of municipality-owned rental flats, the whole Austrian social rental housing sector adds up to a total tenure share of 23%.<sup>38</sup>

Despite interest rate deductions on mortgage loans, the fiscal incentives to boost homeownership are still of minor importance for housing policy in Austria compared to the volume of direct supply side subsidies.

### Funding

Building society contracts (*Bausparkassen*) are still very popular in Austria and are very often taken out by households. In 2010, the volume of outstanding loans granted by building society associations reached EUR 18.7 billion. At the end of 2010, the number of building loan contracts in Austria was EUR 5.4 million (which is approximately one-eighth of all loans granted by the Austrian financial institutions). While the number of building loan contracts has been decreasing for many years, the volume of building loan contracts has continuously increased up to EUR 120.4 billion in 2010 (an increase of 3.5% year-on-year). New lending from building and loan associations reached EUR 3.5 billion in 2008 and stood at EUR 3.1 billion in 2010. When looking at the interest rates on housing loans, we see that the ECB's policy rate cuts were passed on, but with a lag. In the long run, the rate offered by building and loan associations has been below the average rate recorded across all banks. This phenomenon was reversed during a period of falling banks' rates, but from March 2010 onward the interest rates on loans granted by building society associations have once again become more attractive than those on loans granted by banks.

Although the preferential tax treatment of capital earnings from housing construction convertible bonds (*Wohnbauanleihen*) tends to push the building society association system into the background, *Wohnbauanleihen* are not likely to substitute the

<sup>37</sup> See Amann W., Lawson J. and Mundt A. (2009), *Structured financing allows for affordable rental housing in Austria*, in The Housing Finance International Journal, June 2009.

<sup>38</sup> *www.gbv.at*: Mundt A. and Amann W. (2010), *Indicators of a unitary rental market in Austria*, in: The Housing Finance International Journal, September 2010.

*Bausparkassen* in the near future. The volume of issuance of *Wohnbauanleihen* increased up to EUR 171 million at the beginning of 2010, and decreased in 2010 to a minimum of EUR 18 million in September 2010, before recovering again.

	EU27, 2010	Austria, 2010	Austria, 2009
<b>GDP growth (%)</b>	1.8	2.0	-3.9
<b>Unemployment rate (%)</b>	9.6	4.4	4.8
<b>Inflation (%)</b>	2.1	1.7	0.4
<b>% owner occupied</b>	68.9	56.0	56.0
<b>Residential Mortgage Loans as % GDP</b>	52.4	28.0	26.7
<b>Residential Mortgage Loans per capita, EUR thousand</b>	12.88	9.55	8.79
<b>Total value of Residential Loans, EUR million</b>	6,414,079	80,000	73,455
<b>Annual % house price growth</b>	0.7	5.1	3.0
<b>Typical mortgage rate (euro area), %<sup>39</sup></b>	2.78	2.71	3.71
<b>Outstanding Covered Bonds as % outstanding Residential Lending</b>	24.6	12.1 <sup>40</sup>	7.9

Source: EMF, Eurostat, ECB, Central Bank of Austria, Euroconstruct, IIBW

### Notes:

- Typical mortgage rate euro area refers to the AAR/NDER (Source: ECB)
- EU owner occupation rate average derived from EMF calculations based on latest available data.

Austria = 2009

<sup>39</sup> Please note that the euro area "typical mortgage rate" which is reported in each of the country report tables is the year-end variable mortgage rate which is applied in the euro area (Source: ECB). This is used as a proxy for a European average mortgage rate, which would be misleading to produce by using a simple average of national typical mortgage rates.

<sup>40</sup> Please note that the outstanding covered bonds to outstanding residential lending ratios for Austria are estimates.

# Belgium

By Frans Meel, Union Professionnelle du Cr dit

## Macroeconomic overview

Since mid-2009, the Belgian economy has been gradually recovering from its severe recession which was largely due to the collapse of world trade and the simultaneous drastic fall in inventories. It was the turnaround in the former of these factors that triggered the recovery. These developments were accompanied by the recovery of private consumption during 2010.

Thus, after a relatively small contraction at the height of the global recession in late 2008 and early 2009, activity in Belgium subsequently took full advantage of the improvement in the economic environment. In all, following a 2.8% decline in 2009, GDP grew by an average of 2.2% in real terms over 2010. This figure clearly outperforms that of the euro area, where GDP contracted by an average of 4.1% in 2009 and the recovery in 2010 amounted to only 1.8%.

The main reasons for this positive evolution were the strong upturn in foreign demand, the restoration of business and household confidence (households' confidence indicators went up from -15 in the beginning of the year to -2 and even 0 at the end of the year), as well as increasing domestic demand which provided support to GDP growth.

The relatively favourable economic trend in Belgium compared to the euro area during both recession and recovery, was coupled with the exceptional resilience and increase of domestic employment, whereas the labour market normally records a lagged reaction to a revival in economic activity. That increase totalled 0.6%, following a contraction of just 0.4% in 2009. At the end of 2010 there were around 16,000 extra jobs, compared to the peak in the fourth quarter of 2008.

The recovery in the construction sector was far more volatile and later in arriving. After a short-lived rebound of 0.7% between Q1 and Q2 2009, the volume of activity contracted constantly until the beginning of 2010, as the economic and financial crisis depressed property investments in both businesses and households. The downward trend in the number of demands for building permits which was observed since early 2009 started to reverse in Q1 2010. This was due largely to the surge in applications at the beginning of the year as the tax relief measure (which had originally been introduced under the recovery plan) was extended: it was also required that demands for building permits had to be submitted before April 1<sup>st</sup> 2010 in order to qualify for the reduced VAT rate of 6% on a maximum amount of 50,000 EUR (excluding the VAT spent on the construction or completion of new housing).

Generally speaking, the Belgian economy weathered the recent severe turbulence without the burden of major structural imbalances, unlike some of the other euro area countries. Thus, the current account balance with the rest of the world remained slightly positive, and the indebtedness of both households and non-financial enterprises remained sustainable.

From 1993 to 2007, the general government gross debt had fallen steadily from 134.1% of GDP to 84.2%. Due to government intervention rescuing a number of financial institutions at the end of 2008, it then rose again, back to 89.6%. In 2009, following the increase in deficit and the decline in nominal GDP, the debt grew further to reach 96.2% of GDP. In 2010, the rise continued, but more slowly than in 2009. At the end of 2010, public debt thus amounted to 97.5% of GDP. The public debt-to-GDP ratio in Belgium (97.5%) remains above the euro area average (84.2%), although the gap is constantly narrowing.

## Housing and mortgage markets

The property market in Belgium did not undergo any severe adjustment, unlike in Spain and Ireland for example, or outside the EU, the United States. In fact, taking a

fifteen-year perspective, house prices have generally followed a pattern comparable to that seen in most other European countries, but the increase has been steady, with no disproportionate boom and no abrupt correction. Even at the peak of the financial crisis, the fall in house prices was modest and short-lived. Prices began rising again in 2010.

In the second half of 2009, house prices recovered from the drop that was observed in the second half of 2008, and since then the average house price index has continued to record an upward trend during the first three quarters of 2010, and stabilised in Q4 2010. Average house prices went up to EUR 183,059 in Q4 2010, as compared to EUR 175,664 at the end of 2009 (for an annual growth rate of 4.4%).

Villa prices also recovered since the second half of 2009 and continued to increase in 2010. In Q4 2010, the average purchasing price for a villa amounted to EUR 324,791, as compared to EUR 304,328 at the end of 2009, corresponding to an increase of 6.7%. The average price for apartments has been going up since 2010 and has now reached approximately EUR 198,000, compared to EUR 183,438 at the end of 2009, equating with an increase of 7.9%.

The outstanding amount of residential mortgage lending reached about EUR 163.4 billion at the end of 2010 (against EUR 151.7 billion at the end of 2009). In 2010, the total amount of new mortgages granted (including refinancing operations) increased by 23.7% compared to 2009 (after growing by 2.9% in 2009 compared to 2008). The number of contracts granted increased by 21.4% compared to 2009 (after increasing by 10.6% in 2009 compared to 2008). Not taking refinancing operations into account, the number of new mortgages granted increased by 20.2% compared to 2009, and the corresponding value increased by 20.7%. The 2010 figure is the highest mortgage lending level ever reached in Belgium.

The sustainable growth can be explained, among other things, by the level of interest rates, which are still low, by the enduring consumer confidence, the success of the "green loans" and by the fact that investing in real estate is largely considered as an alternative to Stock Exchange investment.

Moreover, this growth in mortgage lending has taken place within a sound economic context: in 2010, the economic recovery in Belgium (2.2%) proved stronger than in the euro area (1.8%). The level of indebtedness of Belgian households is low, compared to that in the rest of the EU<sup>41</sup>. Moreover, prices in the Belgian residential market were resilient to the financial crisis and the slight price correction which was observed already belongs to the past.

If one looks at each quarter separately, it becomes clear that growth in mortgage lending accelerated during Q4 2010.

The reason for the smaller increase in the value of mortgage lending granted, compared to the increase in the number of mortgage loans granted, can be explained by the strong increase (55%) of loans for renovation in particular, the amounts of which are generally lower. No doubt that this is a prolonged effect of the "green loans" with a 1.5% interest subsidy paid by the public authorities.

Loans for house purchase represented 40% (-0.5% compared to 2009) of the number of loan contracts signed in 2010, and this corresponds to 54.6% (an increase of 0.3%) of the value of loans granted. The market share of loans for construction purposes out of total loans was 12.8% in terms of number of contracts (for an increase of 0.4% on 2009) representing 15.6% of the total value of loans granted (for a decrease of 0.6%). The market share of loans for renovation continued to increase, reaching 31.1% of the total number of contracts (for an increase of 0.4% on 2009), being to a large extent the result of the government's measures boosting energy-saving investment.

The average amount of mortgage loans for house purchase stood at EUR 129.9 billion, about EUR 5,000 EUR (or by 3.5%) higher than in 2009 (EUR 125.5 billion). The average amount of mortgage loans for renovation dropped by 9%, down to EUR 31,000.

<sup>41</sup> Belgium: 54.7%; EU14: 88.3% (households' financial debt as a percentage of GDP in 2009; Source: Febelfin calculations on Eurostat data).

After having reached a peak of more than 85% in 2007, the market share of fixed-rate mortgages (also defined as mortgages with initial fixed-rate period of more than 10 years) dropped to only 36% in Q1 2010. Since then, the share of fixed-rate loans has been increasing again and in Q4 2010 the share of fixed-rate loans has reached 75%. This is due to the fact that the interest difference between fixed-rate loans and variable-rate loans (where the interest rate changes every year) has narrowed. Potential borrowers proved more and more attracted by the certainty offered by a fixed interest rate, and less risk-oriented (due to possible rising interest rates in the future)

The positive trend observed in the Belgian mortgage credit market continued also in Q1 2011. The increase in the number of credit applications however has slowed down and this may lead to stabilisation in the forthcoming quarters.

	EU27, 2010	Belgium, 2010	Belgium, 2009
<b>GDP growth (%)</b>	1.8	2.2	-2.8
<b>Unemployment rate (%)</b>	9.6	8.3	7.9
<b>Inflation (%)</b>	2.1	2.3	0.0
<b>% owner occupied</b>	68.9	78.0	78.0
<b>Residential Mortgage Loans as % GDP</b>	52.4	46.3	44.7
<b>Residential Mortgage Loans per capita, EUR thousand</b>	12.88	15.07	14.11
<b>Total value of Residential Loans, EUR million</b>	6,414,079	163,369	151,738
<b>Annual % house price growth</b>	0.7	4.4	2.0
<b>Typical mortgage rate (euro area), %</b>	2.78	3.84	4.43
<b>Outstanding Covered Bonds as % outstanding Residential Lending</b>	24.6	n/a	n/a

Source: EMF, Eurostat, ECB, National Bank of Belgium, Stadim

**Notes:**

- Typical mortgage rate euro area refers to the AAR/NDER (Source: ECB)
- EU owner occupation rate average derived from EMF calculations based on latest available data.

Belgium = 2007





# Bulgaria

By Alessandro Sciamarelli, EMF

## Macroeconomic overview

After the severe recession which hit the Bulgarian economy in 2009, resulting in a drop of 5.5% in real GDP (i.e. the first decrease after six consecutive years of economic growth exceeding 5%), in 2010 the economic situation of the country recorded a very modest improvement, resulting in a meagre 0.2% year-on-year increase. Despite faltering recovery, competitiveness during 2010 was somewhat restored as labour productivity increased by 6.4% on 2009, which was the highest increase since 2000. In 2009, the labour market was not considerably affected by the economic recession – as labour markets usually respond belatedly to the changes in the macroeconomic environment – but as a result of the prolonged economic downturn during 2010 the unemployment rate in Bulgaria almost doubled from its 2008 level, increasing from 5.6% in 2008 to 10.2% in 2010. The recessionary and deflationary developments in the economy drove the inflation rate downwards, as it plunged from 12.5% in 2008 to 2.5% in 2009, before picking up slightly in 2010 to reach 3.0%.

The main drivers behind the weak economic performance of the country in 2010 were, as already observed in 2009, the decline in domestic demand (by 5.0%), particularly as regards gross fixed capital formation which fell by 16.5% after the plunge of 27.6% already recorded in 2009. Construction investment recorded its heaviest recession on record (by 15.5%) after a modest increase of 1% in 2009. The current account balance improved but still recorded a deficit, albeit only 1% of GDP – much lower than the peak of 25.2% reached in 2007 – thanks to the positive performance of exports (7.7%), and the simultaneous decrease in imports (by 2.6%). Despite some improvement in public finances conditions, government spending continued to provide a negative contribution to GDP growth, albeit less pronounced than in 2009 (-1.0% against 6.5%), and budget deficit reached 3.2% of GDP, i.e. 1.5 percentage points lower than in 2009.

## Housing and mortgage markets

As previously recalled, construction investment was severely hit by the economic downturn, and recorded a sharp recession after growing by more than 10% between 2003 and 2008 (the peak was reached in 2007 with 145.7% according to revised time-series). Sub-sectoral residential fixed investment fell for the second consecutive year, i.e. by 16.2% in 2009 and 14.8% in 2010.

Figures for residential construction activity confirm this picture. The number of residential dwelling units reached its historical low of 20,166 units, representing a decrease of 36.4% on the previous year and of 80% on the peak recorded in 2007 (62,185). The number of completed dwelling units also continued to decrease, albeit at a much more moderate rate (5.4%) than in 2009 (10.9%).

On the demand side, house prices continued with their recession with a 10.1% plunge in 2010, albeit slowing down after the 21.4% fall in 2009.

Mortgage debt to GDP ratio remained unchanged in 2010 compared to the previous year (12.4% vs. 12.3%), as outstanding mortgage loans rose to around EUR 4.5 billion from roughly 4.3 billion in 2009. The volume of outstanding mortgage loans recorded another moderate rise, i.e. 3.8%, after 8.4% in 2009. Representative mortgage interest rates on loans denominated in BGN went down from 9.72% in December 2009 to 8.34% in December 2010, while mortgage interest rates on loans denominated in EUR decreased from 8.72% to 7.88% over the same period.

	EU27, 2010	Bulgaria, 2010	Bulgaria, 2009
GDP growth (%)	1.8	0.2	-5.5
Unemployment rate (%)	9.6	10.2	6.8
Inflation (%)	2.1	3.0	2.5
% owner occupied	68.9	n/a	86.8
Residential Mortgage Loans as % GDP	52.4	12.4	12.3
Residential Mortgage Loans per capita, EUR thousand	12.88	0.59	0.40
Total value of Residential Loans, EUR million	6,414,079	4,453	4,292
Annual % house price growth	0.7	-10.1	-21.4
Typical mortgage rate (euro area), %	2.78	8.34	9.72
Outstanding Covered Bonds as % outstanding Residential Lending	24.6	n/a	n/a

Source: EMF, Eurostat, ECB, Central Bank of Bulgaria, National Statistical Institute of Bulgaria

### Notes:

- Typical mortgage rate in the euro area refers to the AAR/NDER (Source: ECB)
- EU owner occupation rate average derived from EMF calculations based on latest available data.

Bulgaria = 2009

# Cyprus

By Alessandro Sciamarelli, EMF

## Macroeconomic overview

The Cypriot economy grew in real terms by 3.8% on yearly average from 1997 to 2008, the year which represented a first slowdown compared to previous years (3.6% against 5.1% in 2007). In 2009, due to adverse international economic conditions, Cyprus experienced a recession as did almost all other EU countries. The recession however was fairly moderate (-1.7%), and was then followed by a mild recovery (1% in real GDP growth in 2010).

This recovery was essentially due to the pick-up in domestic demand, which increased by 2.3% after the drop in 2009 (of 7.6%) and provided the largest contribution to GDP growth (of 2.5%). Gross fixed investment fell for the second consecutive year, i.e. by 7.9% (9.1% in 2009). At the sub-sectoral level, investment in equipment fell by 12% in 2010 and by 9.3% in 2009. Further to the recovery in international trade and the global economy during 2010, exports recorded a moderate growth (0.6%) on 2009 and imports increased by 3.1% after plummeting by 19.3% in 2009. As a result, the current account balance further deteriorated and recorded a deficit of 9.3% (7.9% in 2009), which was however lower than the record deficit reached in 2008 (17%).

The rise in consumer prices accelerated in 2010 by 2.6% after a flat development of 0.2% in prices in 2009. Labour market conditions further worsened in 2010 as a result of the subdued economic recovery, and the average annual unemployment rate rose moderately (from 5.3% in 2009 to 6.5% in 2010, having almost doubled from the 3.6% rate in 2008).

Public finances remained under strong pressure in 2010. At the end of the last booming economic cycle, the government budget of Cyprus recorded two consecutive years of surplus (3.4% and 0.9% of GDP in 2007 and 2008), but this ended dramatically in 2009 with a 9% deficit, which in 2010 decreased marginally to 5.6% as a result of an increase in revenues. Government debt remained stable and reached 60.8% of GDP (58% in 2009), remaining well below the record levels of the pre-crisis years (70.2% in 2004).

## Housing and mortgage markets

After years of continuous and robust growth, boosted by double-digit increases in nominal house prices (which peaked in 2007 with an increase of 21.8%), in 2007 housing supply started contracting. The number of residential building permits decreased by 2.7% in 2007 and by 6.6% in 2008, followed by a mild recovery of 0.6% in 2009, but in 2010 the number of permits went down again on the previous year by 1.9%. Real residential investment fell on a year-on-year basis for the second consecutive year in 2010, but much more severely than in 2009 (-14.1% vs. -8.5%). The rate of decrease in housing investment worsened as a response to the pronounced fall in house prices recorded in the previous year.

On the demand side, in 2010 residential property prices recorded a fall of 2.5%, i.e. at a more moderate rate than that of 4.1% in 2009, which represented both a turnaround and the first year-on-year decrease following the very buoyant performances of the previous years. The average annual nominal growth rate in residential property prices from 2003 to 2007 was 11.2%, with a peak of 21.8% in 2007.

Mortgage market activity in the years from 1999 to 2007 was also boosted by booming house prices, healthy housing demand, buoyant macroeconomic conditions and financial stability resulting in lower mortgage interest rates prior to the country's accession to the euro area on January 1<sup>st</sup>, 2008. Despite decreasing demand for residential dwellings in 2010, mortgage lending activity in Cyprus proved resilient compared to many other EU markets. Outstanding residential loans increased by 14.7% in volume – i.e. the third highest growth rate among euro area countries – and reached EUR 12 billion, compared to EUR 10.5 billion in 2009. Due to the lower year-on-year increase in nominal GDP, the residential mortgage to GDP ratio by far exceeded the EU27 value in 2010 (68.9% vs 52.4%) reaching its historical peak, i.e. 2.3 times higher than the value of 2005.

After falling to their historical low at end-2008 (5.01%), fixed mortgage interest rates for up to one year on residential mortgage loans increased slightly in 2010, reaching 5.16% at year-end.

	EU27, 2010	Cyprus, 2010	Cyprus, 2009
GDP growth (%)	1.8	1.0	-1.7
Unemployment rate (%)	9.6	6.5	5.3
Inflation (%)	2.1	2.6	0.2
% owner occupied	68.9	n/a	73.8
Residential Mortgage Loans as % GDP	52.4	68.9	61.9
Residential Mortgage Loans per capita, EUR thousand	12.88	14.98	13.17
Total value of Residential Loans, EUR million	6,414,079	12,033	10,492
Annual % house price growth	0.7	-2.5	-4.1
Typical mortgage rate (euro area), %	2.78	5.16	5.01
Outstanding Covered Bonds as % outstanding Residential Lending	24.6	n/a	n/a

Source: EMF, Eurostat, ECB, Central Bank of Cyprus, Statistical Service of Cyprus

### Notes:

- Typical mortgage rate euro area refers to the AAR/NDER (Source: ECB)
- EU owner occupation rate average derived from EMF calculations based on latest available data.

Cyprus = 2009

# Czech Republic

By Jindřich Thon, Hypoteční banka

## Macroeconomic overview

The Czech economy has been recovering since mid-2009, being primarily driven by foreign demand and the replenishment of previously used inventory. Industry and exports once again recorded double-digit increases last year, thus gradually offsetting their previous falls. The economy was mainly driven by car production, boosted by the ongoing application of bonuses for scrapping cars in certain European countries. While most industrial sectors had already bottomed out, construction continued to be subdued, and the situation for a large part of the services sector has not yet improved significantly either. Even so, the economic recovery is having a positive effect on the Czech labour market. Although unemployment climbed to nearly 10% at the end of 2010, it has steadily declined since the beginning of 2011, primarily due to the improved demand from businesses for new staff. Labour market conditions improved, without increasing pressure on wages. Hence the increase in household consumption continued to be very moderate, and therefore no demand-pull inflationary pressures occurred in the economy, nor do they occur now.

Inflation remained around the inflation target set by the central bank, which may consequently maintain its interest rates at their current all-time lows (as it has been doing since May 2010). Obviously, this policy was also reflected in very low interest rates on capital markets. The decline in long-term rates was subsequently followed by a decline in mortgage rates, but the latter continued to fall until the spring of 2011.

## Housing and mortgage markets

The decline of the real estate market also continued in 2010. Compared to 2009, the number of dwellings started fell by almost 25%, and the number of dwellings completed also went down. In addition, housing demand remained flat, due to households' concern about their financial position. In 2010, the volume of new mortgage loans went up to CZK 81.3 billion (EUR 3.2 billion), yet it significantly lagged behind the strong years between 2006 and 2008, when the real estate market was driven towards record-breaking levels by the rising real estate prices as well as by concerns about a VAT increase on new dwellings. In spite of households' worsened economic situation during and shortly after the economic recession, the quality of housing loans did not deteriorate significantly. The share of non-performing loans only increased to 3.2%, thus posing no significant risk to the banking sector.

Data on the first months of 2011 indicates a recovery in demand for mortgage loans, due to the improved economic outlook of the country and probably also due to the Government's proposal on VAT rates. According to this proposal put forth by the Ministry of Finance, the VAT on new dwellings (currently at 10%) should be increased in two stages to reach 17.5% in 2013. This alone may boost demand for new dwellings.

## Funding

In 2010 the volume of mortgage covered bonds represented only 44.4% of outstanding mortgage lending. This level was 3.8% lower than 2009 and for the first time since 1999 it dropped below 50%. The issuance of mortgage covered bonds declined from EUR 738 million in 2009 to EUR 724 million in 2010. These developments were influenced by the income tax amendments in 2008. Before 2008, revenue interests from mortgage covered bonds were income-tax exempt. Revenue interests on mortgage covered bonds issued after January 1<sup>st</sup> 2008 are subject to withholding tax.

	EU27, 2010	Czech Republic, 2010	Czech Republic, 2009
GDP growth (%)	1.8	2.3	-4.1
Unemployment rate (%)	9.6	7.3	6.7
Inflation (%)	2.1	1.2	0.6
% owner occupied	68.9	76.6	76.6
Residential Mortgage Loans as % GDP	52.4	12.8	12.4
Residential Mortgage Loans per capita, EUR thousand	12.88	1.77	1.72
Total value of Residential Loans, EUR million	6,414,079	18,557	16,975
Annual % house price growth	0.7	n/a	n/a
Typical mortgage rate (euro area), %	2.78	4.23	5.61
Outstanding Covered Bonds as % outstanding Residential Lending	24.6	44.4	48.2

Source: EMF, Eurostat, ECB, Czech National Bank, Czech Statistical Office, Ministry for Regional Development

### Notes:

- Typical mortgage rate euro area refers to the AAR/NDER (Source: ECB)
- EU owner occupation rate average derived from EMF calculations based on latest available data.

Czech Republic = 2009

# Denmark

By Kaare Christensen, Association of Danish Mortgage Banks

## Macroeconomic overview

The Danish economy in 2010 recovered from one of the worst economic downturns in history. Danish real GDP increased by 1.7% in 2010 following the contraction of 5.2% in 2009. While private investment remained subdued mainly due to low activity in the construction sector, exports and private consumption picked up. Economic recoveries in Germany and Sweden, which are among Denmark's most important trading partners, drove the rise in exports, which increased by 3.6% in real terms. Domestic real private consumption also improved by 2.2%. Private consumption benefited from the stimulus of low interest rates and tax cuts, while the increase in gross unemployment stopped at 6.5% half way through the year. Since then, the unemployment rate has scaled down to 6% at year-end (7.4% expressed as the EU-harmonised unemployment rate).

During most of 2010, Danish interest rates decreased from already low levels, increasing only slightly towards the end of the year. By Q3 2010, long-term and short-term mortgage rates recorded all-time lows of 4.1% and 1.4% respectively, but have started climbing again since then.

Due to the fixed exchange rate policy of the Danish National Bank, Danish interest rates generally follow those of the euro area. Hence interest rate increases indirectly depend on the evolution of consumer prices and consumer price expectations in the euro area. Danish consumer prices rose year-on-year by 2.2% in 2010, while consumer prices in the euro area only rose by 1.6% in the same period. When the ECB raised its central rate by 25 basis points (bps) on April 7<sup>th</sup>, 2011, the Danish National Bank immediately followed by also increasing its rate by 25 bps (taking it from 0.75% to 1.00%).

## Housing and mortgage markets

The Danish housing market improved in 2010 compared to 2009, but regional differences characterise the market. The housing supply – in terms of the number of owner-occupied dwellings available for sale on the internet - was sustained in 2010 and is still rising.

In 2010, 31,900 detached and terraced houses, 9,800 owner-occupied flats and 3,900 holiday homes were sold by taking out a mortgage loan. This represents an increase of 18% in the number of transactions compared to 2009, but the level is still low once put into a historical context. There were relevant regional variations in the recovery in activity in 2010: the largest increase in the number of transactions was observed outside of the Capital Region. In the Capital Region, the recovery was more subdued, due to the fact that in 2009 housing activity stabilised in the Capital Region but sharply decreased in the rest of the country. The development in the Capital Region thus seems to be a leading indicator for the rest of Denmark.

At the national level, house prices rose by 1.5% from December 2009 to December 2010, which was a pronounced improvement on 2009 when prices dropped by almost 3 percentage points (-2.8%). The prices of owner-occupied flats rose by almost 6% which was also a significant increase on 2009 when average prices of owner-occupied flats went down by around 6%. The average square metre prices of detached and terraced houses went up by 7.8% year-on-year in the Capital Region in 2010. The steepest price increases were observed in the first six months. From the late summer onwards, the growth in prices slowed down. The slowdown became more pronounced over the autumn months, and at the end of the year, the Capital Region even recorded a slight decline in prices. Developments in the market for owner-occupied flats in the Capital Region also reflected the same pattern, albeit more subdued, with annual price rises of 6.4%. The Capital Region was more or less the only region which recorded price increases in 2010. As regards the other regions, only the Central Denmark Region experienced increasing prices in detached and terraced houses (of 4%). In the remaining regions, prices more or less stagnated. In the market for owner-occupied flats, price increases were more evenly distributed across the country. Both the South Denmark Region and the Central Denmark Region recorded price increases

similar to those observed in the Capital Region. The North Denmark Region also recorded small annual price increases of 2% on average, whereas the prices of owner-occupied flats declined slightly in the Region Sealand in 2010. However, all regions experienced price increases in the first quarters of 2010 which then turned into slight declines towards the end of the year.

About 60,000 owner-occupied dwellings were put on the market via the Internet at the end of 2010, which is 8% higher than the previous year, when the number was about 55,000. The supply of owner-occupied housing has grown outside the Capital Region in particular. The housing market continued to be dominated by a large supply of detached and terraced houses. At the national level, 40,166 detached and terraced houses, 9,444 owner-occupied flats and 9,835 holiday homes were put on the market.

In the context of continuously subdued housing market conditions, net mortgage lending activity was at its lowest level since 2001. Adjustable-Rate Mortgages (ARMs) remained popular in 2010, but fixed-rate mortgage loans recovered some of the lost ground. Total outstanding mortgage lending (residential and commercial) grew from DKK 2,292 billion (EUR 308.1 billion) in 2009 to DKK 2,363 billion (EUR 317 billion) in 2010. Total mortgage lending for owner-occupied dwellings and holiday homes amounted to DKK 1,372 billion (EUR 184 billion), while total commercial mortgage lending accounted for DKK 986 billion (EUR 132 billion).

Danish mortgage banks' gross lending (residential and commercial) amounted to DKK 444 billion (EUR 59.7 billion) in 2010. Combined with the subdued figures for netlending, this reflects healthy activity in the repayment market: retail and commercial borrowers repaid existing loans and loan repayments amounted to DKK 379 billion (EUR 50.8 billion) in total. Net lending thus amounted to DKK 65 billion (EUR 8.7 billion) against DKK 110 billion (EUR 14.8 billion) in 2009. Net lending has been declining since 2007 to a nine-year low at end-2010. The decline was due to a downturn in housing prices in some parts of Denmark, and also to low levels in new residential building activity.

Lending for owner-occupied dwellings and holiday homes was lower in 2010 than in 2009. Gross lending was DKK 308 billion (EUR 41.3 billion) in 2010, down by DKK 23 billion (EUR 3.1 billion), or 7%, on 2009. Net lending for owner-occupied dwellings and holiday homes dropped by 34% in 2010, i.e. from DKK 58 billion (EUR 7.8 billion) in 2009 to DKK 38 billion (EUR 5.1 billion) in 2010. In 2010, gross lending to businesses in agriculture, industry, trade, office and retail amounted to DKK 82.5 billion (EUR 11.1 billion), down by DKK 21 billion (EUR 2.8 billion), or 20%, on the year before. Net commercial lending declined by DKK 24 billion (EUR 3.2 billion) from DKK 44 billion (EUR 5.9 billion) in 2009 to DKK 20 billion (EUR 2.7 billion) in 2010.

## Funding

An increasing amount of outstanding mortgage loans in Denmark are financed by short-term bullet bonds. This is due to the fact that the majority of Danish home owners and businesses still prefer ARM mortgages rather than fixed-rate mortgages. This meant that the interest rate on an amount of DKK 575 billion (EUR 77.1 billion) was fixed in December 2010. This was an increase from approx. DKK 500 billion (EUR 67.1 billion) in 2009 and DKK 350 billion (EUR 47 billion) in 2008.

The sale of mortgage bonds underlying the loans for which the interest rate was adjusted in the month of December went as planned. Demand for bonds was strong and, due to declining mortgage rates, borrowers with ARM mortgages benefited from new record low interest rates in 2010 (1.6% being the rate up to 1 year). When an ARM mortgage loan is adjusted with a new interest rate, the mortgage banks must sell new mortgage bonds to replace the bonds that expire; the price investors are willing to pay for the bonds determines the new interest rate payable by the borrowers.

In the coming years, fewer ARM loans will have to be adjusted for the new interest rates in December, as the mortgage banks aim at diversifying the times for ARM adjustments through the year. This process has started in 2010 and will continue onwards.

	EU27, 2010	Denmark, 2010	Denmark, 2009
GDP growth (%)	1.8	1.7	-5.2
Unemployment rate (%)	9.6	7.4	6.0
Inflation (%)	2.1	2.2	1.1
% owner occupied	68.9	53.6	53.7
Residential Mortgage Loans as % GDP	52.4	101.4	104.0
Residential Mortgage Loans per capita, EUR thousand	12.88	42.88	41.96
Total value of Residential Loans, EUR million	6,414,079	237,313	231,263
Annual % house price growth	0.7	1.5	-2.8
Typical mortgage rate (euro area), %	2.78	4.68	5.19
Outstanding Covered Bonds as % outstanding Residential Lending	24.6	100.0	100.0

Source: EMF, Eurostat, ECB, Danish National Bank, Statistics Denmark

**Notes:**

- Typical mortgage rate euro area refers to the AAR/NDER (Source: ECB)
- EU owner occupation rate average derived from EMF calculations based on latest available data.

Denmark = 2010



## Estonia

By Alessandro Sciamarelli, EMF

### Macroeconomic overview

The Estonian economy during 2010 continued to be severely affected by the financial crisis, but real GDP, after plummeting by 13.9% year-on-year in 2009 (its worst economic recession on record), recovered by 3.1% in annual terms. Competitiveness of the economy was somewhat restored as labour productivity bounced up by 8.3%, returning to its positive long-term trend, after the marked falls in 2008 and 2009 (-5.2% and -4.4% respectively). As regards GDP components, gross fixed capital formation continued with its pronounced downturn, albeit at a lower rate than in 2009 (-9.2% vs. -32.9%). A more detailed analysis reveals that investment in equipment recovered (12.9% after the fall of 44% in 2009), but construction investment continued with its severe downturn and fell by 20.9% (against a drop of 26.2% in 2009). Domestic demand however provided positive contribution to GDP growth, i.e. by 1.3%, while the contribution from gross fixed investment remained negative (-0.2%, albeit lower than -9.4% in 2009). Imports and exports both recovered in 2010 (having increased year-on-year by 21% and 21.7% respectively) and the current account recorded its second consecutive surplus, i.e. 2.8% of GDP in 2010 after 4.5% in 2009, the latter having been the first surplus after sixteen years of imbalance.

The EU-harmonised unemployment rate reached its record high of 16.9%, rising further from the 13.8% of 2009, which was already a remarkable increase from the 5.5% rate of 2008.

In the course of 2009 and 2010, inflation continued to decelerate dramatically, decreasing from the peak of 10.6% in 2008 – mainly as a result of the depressed economic activity – down to 0.2% in 2009. The yearly average in 2010, however, shows another rise of 2.7%.

Public finances proved resilient to the economic and financial crisis. With the government budget balance recording a tiny surplus of 0.1% of GDP after the small deficits of 2.8% and 1.7% of GDP observed in the two previous years, they benefitted from restored economic recovery and an increase in corporate revenues. In parallel, gross government debt to GDP ratio decreased to 6.6% in 2010 from 7.2% in 2009, and remained by far the lowest ratio in the EU27

### Housing and mortgage markets

After the peaks in both completion of residential construction activity – which led to excess supply of housing – and in house prices recorded between 2002 and 2006, the Estonian housing markets entered a harsh recession in 2009. In 2010, however, housing supply in 2010 recovered: the number of building permits increased by 24.9% on 2009 after the record low of the previous year (2,081 units) and four consecutive year-on-year falls between 2006 and 2009. Completions obviously do not yet reflect the improvement in residential construction, but the fall recorded in 2010 was milder than that in 2009 (23.2% vs 42.9%). On the demand side, data on house prices for the Tallinn area, where they had sharply decreased both in 2009 (-32.7%) and in 2008 (-28.5%), are not available for 2010.

As for the other two Baltic republics (Latvia and Lithuania), during the 2000s mortgage lending in Estonia experienced an extremely positive cycle (average annual growth rate in outstanding mortgage lending between 1999 and 2008 was 43.6%) boosted by favourable macroeconomic developments, declining interest rates and perspectives of financial and macroeconomic stability ahead of future adhesion to the euro area, which eventually took place on January 1<sup>st</sup> 2011 after twelve years of a “peg” exchange rate regime. Mortgage lending activity in 2010 continued to be a reflection of curbed housing demand and also a result of the harsh correction process from the peaks of the years prior to 2008. Outstanding mortgage lending in 2010 was worth just under EUR 6 billion and decreased by 2.4% on 2009 (after the decrease of 1.8% in 2009). New lending also continued to fall but at a much lower rate than the tremendous drop of 68.9% recorded in 2009 and reached a plateau of EUR 419 million (it was worth EUR 446 million in 2009). The ratio of outstanding mortgage lending to GDP decreased from 44.2% in 2009 to 41.7% due to the decrease in the numerator, i.e. mortgage lending.

As in 2009, the interest rate environment provided some support to mortgage lending demand as the weighted mortgage interest rate on mortgage loans at the end of 2010 went down to its historical low of 3.00% from 5.90% one year earlier (it was 8.20% at end-2008).

	EU27, 2010	Estonia, 2010	Estonia, 2009
GDP growth (%)	1.8	3.1	-13.9
Unemployment rate (%)	9.6	16.9	13.8
Inflation (%)	2.1	2.7	0.2
% owner occupied	68.9	n/a	87.1
Residential Mortgage Loans as % GDP	52.4	41.7	44.2
Residential Mortgage Loans per capita, EUR thousand	12.88	4.46	4.56
Total value of Residential Loans, EUR million	6,414,079	5,971	6,116
Annual % house price growth	0.7	n/a	-32.7
Typical mortgage rate (euro area), %	2.78	3.00	5.90
Outstanding Covered Bonds as % outstanding Residential Lending	24.6	n/a	n/a

Source: EMF, Eurostat, ECB, Bank of Estonia, Statistics Estonia

#### Notes:

- Typical mortgage rate in the euro area refers to the AAR/NDER (Source: ECB)
- EU owner occupation rate average derived from EMF calculations based on latest available data.

Estonia = 2009

# Finland

By Tommi Laanti, Ministry of the Environment of Finland

## Macroeconomic overview

In 2009, the effects of the global economic crisis were exceptionally bad for the highly export- dependent Finnish economy. Real GDP dropped by 8.2%. The last comparable recession in GDP was more than 90 years ago. In 2010 the Finnish economy started to recover, and GDP increased by 3.6% in yearly terms. The GDP performance was mainly affected by the 8.6% increase in exports. Investment grew by 2.8% and private consumption by 2.7%. The average annual unemployment rate was 8.4% in 2010, remaining almost unchanged compared to the year before.

Consumer prices started to rise towards the end of 2010. The national consumer price index went up by 2.9% in year-on-year terms in December 2010. The harmonised consumer price index, which excludes the effect of interest rates and house prices, went up by 1.7% on yearly average, almost equal to the euro area average (1.6%).

Earnings in the private sector increased in nominal terms by 2.6% in 2010. In real terms, however, their annual growth rate was negative due to accelerating inflation. In 2010, the increase in real earnings was 1.3%.

## Housing and mortgage markets

In 2010, the number of building permits of dwellings increased by 23% compared to 2009, up to 33,400 units. New housing starts also increased remarkably, i.e. by 45% (up to 33,300 units). That was mainly due to the effects of the government stimulus to the building industry and the low volume of housing starts in 2009. The stimulus was mainly aimed at supporting new rental housing. The growth in housing completions on the previous year was more modest, just 10.4%, mainly due to the low construction activity in 2009 and 2008.

Traditionally, Finland has had a very cyclical economy, which is highly exposed to global markets and thus very sensitive to global shocks. This is the major cause of the volatility of the country's housing market. The relatively high volatility of house prices in Finland is also due to the housing market's high interest rate sensitivity and the insufficiently responsive housing supply side compared to the existing housing demand.

From Q1 2009, which represented the turning point of the falling house prices, to the end of 2010 the average price of existing dwellings increased by 14.6%. In 2010, the average price of existing dwellings went up by 8.7% and the number of sales increased by 4.2% according to Statistics Finland. Prices of new dwellings increased on average by 14.3% year-on-year, up to EUR 3,342 per square meter.

There were significant difference in price changes at the regional level. Existing dwelling prices increased by 11.4% in the Helsinki Metropolitan Area, to EUR 3,238 per square meter on average whereas in the rest of Finland the increase was by 6.5% (EUR 1,615 per square meter). As regards new dwellings, the prices increased by 13.7% (EUR 4,349 per square meter) in the Helsinki Metropolitan Area and in the rest of the country by 9.0% (EUR 2,873 per square meter).

The remarkably low interest rates boosted demand for dwellings and house prices continued to climb up during 2010. In the Finnish housing market, developments in housing loans are typically linked to short-term interest rates. Over 90% of mortgages were variable rate mortgages, incorporating a year of shorter interest rates. Strong consumer confidence in the economy and better-than-expected developments in the labour market supported the strong housing demand.

In most part of Finland the housing market is well-balanced. In the biggest urban areas there are, however, shortages in supply compared to housing demand. The main reasons why an increase in residential construction activity is needed are the ongoing internal and international migration and changes in the economic structure of the country.

The rental sector makes up roughly one third of the whole Finnish housing market. Even though the private rental market was completely deregulated in 1995, Finland's

private rental market is relatively small, consisting of roughly half of the rental stock. The other half of the rental dwelling stock (around 800,000 units) receives some form of government subsidy or support and is rent-regulated. Rents in the rental housing sub-sector, which benefit from Government-subsidised loans, are 26% lower than private rents in Helsinki, and 9% lower than the rest of the country.

In 2010, more than EUR 20 billion new mortgages were issued – that is 3.1% higher than the year before – and their average interest rate was 2.02%. The total residential mortgage stock was EUR 76.7 billion, equal to 42.3% of GDP.

	EU27, 2010	Finland, 2010	Finland, 2009
GDP growth (%)	1.8	3.6	-8.2
Unemployment rate (%)	9.6	8.4	8.2
Inflation (%)	2.1	1.7	1.6
% owner occupied	68.9	n/a	59.0
Residential Mortgage Loans as % GDP	52.4	42.3	41.2
Residential Mortgage Loans per capita, EUR thousand	12.88	14.25	13.41
Total value of Residential Loans, EUR million	6,414,079	76,244	71,407
Annual % house price growth	0.7	8.7	-0.3
Typical mortgage rate (euro area), %	2.78	2.17	2.00
Outstanding Covered Bonds as % outstanding Residential Lending	24.6	13.3	10.7

Source: EMF, Eurostat, ECB, Bank of Finland, Statistics Finland, Euroconstruct, Federation of Finnish Financial Services

### Notes:

- Typical mortgage rate euro area refers to the AAR/NDER (Source: ECB)
- EU owner occupation rate average derived from EMF calculations based on latest available data.

Finland = 2009

# France

By Jean-Marie Gambrelle, *Crédit Immobilier de France*

## Macroeconomic overview

The growth of the French real GDP by 1.5% in 2010 has slightly exceeded the forecast of 1.4% which was released at end-2009, proving that, after the severe fall recorded between the end of 2008 and the beginning of 2009, the French economy was under control anew and since Q2 2009, has observed a trend of stable growth.

This strong economic performance was mainly due to the growth in final household consumption, which accelerated by 1.7% in 2010, compared to the growth rate recorded in 2009 (0.6%).

The positive evolution of consumption was due to a continued increase in household income (2.4% in annual terms against 1.1% in 2009), but in real terms that increase was only by 1.2% against 1.6% in 2009. On yearly average, inflation was 0.1% in 2009 and climbed up to 1.7% in 2010.

The total number of employed in France rose by 0.9% and the unemployment rate decreased to 9.6% at end of 2010 (9.2% in Metropolitan France) against 9.9% in 2009. On average, in 2010 the unemployment rate in France went slightly up compared to 2009 (9.7% vs. 9.5%).

At the end-of 2010 the French economy looked in good shape, but the shock of the crisis has been very hard and has significantly impacted some of the main weaknesses which already existed in the French economy: more public debt, more unemployment and less industrial development.

The crisis drove the public debt upwards, i.e. to 84% of GDP, and the unemployment rate reached 9.6% in December 2010 (against 7.9% in the fourth quarter of 2007). Despite the positive evolution in production in 2010, which recorded a growth rate of 5.4%, industrial production has not yet recovered from the falls of the previous years (i.e. -12.5% in 2009 and -14.7% in 2008).

## Housing and mortgage markets

More jobs, more income, more inflation and low interest rates are a favourable combination for the housing market. The number of transactions for existing homes reached very high levels in 2010, i.e. 780,000 (against 590,000 in 2009), and house prices rose by around 10% (9.4%) and notably more in the *Île-de-France* (14%), where they rose above the historical peak of 2008.

The number of housing starts increased by 3% (after a decline of 17% in 2009) on national average. It is worth noting that this 3% increase is the result of two opposite trends during the year, i.e. a tremendous fall during Q1 and Q2, and a period of vigorous growth during Q3 and Q4 2010, which led housing starts on a trend of 340,000 to 360,000 units compared to the 300,000 units of Q1 2010.

New homes remained unsold for a maximum of six months in France and less than four months in Paris in Q4 2010 and prices of new flats showed signs of vitality (5% year-on-year). The number of sales of new single family houses increased by 15%.

In order to boost recovery from the housing market downturn of end-2008, the Government had prolonged and strengthened public support to households wishing to buy a new dwelling for occupation or rental purposes until the end of 2009, which can partly explain the very good performance of the housing market towards the end of 2010.

Gross residential loans reached a peak of EUR 158 billion, which is a 78% increase compared to 2009, also representing a higher value than in 2006 and 2007: this is surprising, since in 2009 lenders reduced their Loan-to-Value (LTV) ratios for bridging loans, and the number of bridging loans had strongly decreased. However, the very good performance of new residential lending can partly be explained by the lively remortgaging activity seen in 2010.

The value of outstanding residential loans rose quickly by 8% (or EUR 59 billion) reaching EUR 797 billion and residential mortgage debt exceeded 40% of GDP (i.e. 41.2%). Mortgage rates decreased throughout the year and reached a low of 3.5%, then stabilised in November 2010.

## Funding

In 2010, all forms of deposits were the main funding sources for mortgage lending activity in France, and they increased by 5% in value on 2009.

All French lenders, however, have a vehicle to issue mortgage-secured debts which fund around 20% of the household mortgage debt, as the volume of outstanding French Jumbo Covered Bonds increased quickly in 2010.

As part of this changing mortgage funding framework, the government decided to establish a new financial vehicle, the *Société de financement de l'habitat* (SFH) with the Law of 23 October 2010 on "*Régulation bancaire et financière*" (Banking and Financial Regulation).

	EU27, 2010	France, 2010	France, 2009
GDP growth (%)	1.8	1.5	-2.7
Unemployment rate (%)	9.6	9.7	9.5
Inflation (%)	2.1	1.7	0.1
% owner occupied	68.9	57.8	57.8
Residential Mortgage Loans as % GDP	52.4	41.2	39.0
Residential Mortgage Loans per capita, EUR thousand	12.88	12.31	11.46
Total value of Residential Loans, EUR million	6,414,079	796,600	737,600
Annual % house price growth	0.7	9.4	-4.4
Typical mortgage rate (euro area), %	2.78	4.00	4.60
Outstanding Covered Bonds as % outstanding Residential Lending	24.6	19.6	23.9

Source: EMF, Eurostat, ECB, Banque de France, INSEE

### Notes:

- Typical mortgage rate euro area refers to the AAR/NDER (Source: ECB)
- EU owner occupation rate average derived from EMF calculations based on latest available data.

France = 2008



# Germany

By Thomas Hofer, Association of German Pfandbrief Banks

## Macroeconomic overview

After the economic downswing in 2009 when Gross Domestic Product (GDP) fell in real terms by 4.7%, the German economy experienced a quick recovery in 2010, rising by 3.6% year-on-year according to Eurostat data. This economic upswing gained speed over the course of the year. Both exports and domestic economic activity regained momentum, and there were also increases in corporate investment and in private expenditure. Lower interest rates as well as greater household income security thanks to the increasingly more favourable labour market situation provided impetus to the purchase of existing properties as well as to new construction activity and also to the renovation of residential buildings.

## Housing and mortgage markets

In 2010, residential investment increased by 4.3%. In recent years housing construction activity has been extremely low. From the middle of the 1990s to 2008 the number of building permits and the number of completions has fallen almost every year. This trend came to an end in 2009, when a slight increase in the number of building permits was recorded. In 2010 the number of permits rose by 5.5% on the previous year.

The number of transactions has been relatively stable for several years, increasing slightly in 2010 by 1.9% to 488,000.

Prices for residential properties rose slightly in 2010. The House Price Index for Owner Occupied Dwellings published by the Association of German Pfandbrief Banks (vdp) increased by 0.6% on 2009. Equally, all of the sub-indices recorded positive developments: prices for single family houses and for owner-occupied apartments increased by 0.7% and by 0.2% respectively.

At the end of 2010 mortgage interest rates in Germany were lower than at the end of the previous year. The typical mortgage rate went down to 3.70% from 4.29% in 2009.

In a context of favourable macroeconomic developments, demand for house purchases and renovation was higher than the previous year. Gross residential lending increased by 2% in comparison to 2009. Since repayments of existing loans were equal to new lending, the volume of outstanding residential loans remained almost unchanged. In 2010 outstanding loans amounted to EUR 1,152 billion, which corresponded to an increase of 0.5% on 2009.

## Funding

Germany has the largest covered bond market in Europe, accounting for 27.3% of the total market. The sub-sector of this market for mortgage bonds is also strong in Germany and accounted for 13.5% of the total EU market in 2010.

In the year under review, *Pfandbriefe* totalling EUR 87.0 billion were brought to market (in 2009 they were EUR 110.4 billion). Whereas Public *Pfandbriefe* with an aggregate volume of EUR 41.6 (52.3 in 2009) billion were sold, Mortgage *Pfandbriefe* sales accounted for EUR 42.2 (56.9 in 2009) billion. Ship *Pfandbriefe* were issued worth EUR 3.2 billion (1.3 in 2009).

As repayments exceeded new sales, the outstanding volume of *Pfandbriefe* decreased to EUR 639.8 billion in 2010 (from 719.5 billion in 2009). Whereas the volume outstanding of Mortgage *Pfandbriefe* decreased slightly from EUR 225.1 billion in 2009 to EUR 219.9 billion in 2010, Public *Pfandbriefe* declined from EUR 486.4 billion to EUR 412.1 billion. In 2010, Ship *Pfandbriefe* accounted for EUR 7.8 billion (EUR 8 billion in 2009).

	EU27, 2010	Germany, 2010	Germany, 2009
GDP growth (%)	1.8	3.6	-4.7
Unemployment rate (%)	9.6	7.1	7.8
Inflation (%)	2.1	1.2	0.2
% owner occupied	68.9	43.2	43.2
Residential Mortgage Loans as % GDP	52.4	46.5	48.3
Residential Mortgage Loans per capita, EUR thousand	12.88	14.09	13.99
Total value of Residential Loans, EUR million	6,414,079	1,152,195	1,146,969
Annual % house price growth	0.7	0.6 <sup>42</sup>	-1.3
Typical mortgage rate (euro area), %	2.78	3.70	4.29
Outstanding Covered Bonds as % outstanding Residential Lending	24.6	19.1	19.6

Source: EMF, Eurostat, ECB, Federal Statistical Office Germany

### Notes:

- Typical mortgage rate euro area refers to the AAR/NDER (Source: ECB)
- EU owner occupation rate average derived from EMF calculations based on latest available data.

Germany = 2002

<sup>42</sup> Please note that this figure refers to the VdP Index for all owner-occupied housing, while the figure reported for Germany on Table 11 of the Statistical Appendix refers to the sub-segment of single-family houses. The House Price Index for owner-occupied housing is a weighted average of the sub-indices for single-family houses and owner-occupied apartments respectively.

## Greece

By Theodore Mitrakos, Economist, Central Bank of Greece

### Macroeconomic overview

The drop in consumption and investment, which was due to the necessary fiscal adjustment, were the key factors behind the deep recession in Greek economy during the current crisis. Real GDP contracted by 2% in 2009 and 4.5% in 2010, exclusively weighed down by domestic demand, in particular declines in 2010 of 4.5% in private consumption, 6.5% in government consumption and 16.5% in gross fixed capital formation. The first half of 2011 was a period of continuing and intensifying turmoil and uncertainty in the Greek economy. As a result the fall of real GDP was of 7.5% over the first half of 2011 (8.1% in Q1 and 7.3% in Q2 respectively), on a non-seasonally adjusted basis, following a substantial fall by 8.8% in Q4 2010. The fall in real GDP in the first two quarters of 2011 was mainly due to the continuing uncertainty and extraordinarily depressed consumer and business confidence. Public investment expenditure fell by 42.5%, as well as the continuing drop in domestic private demand.

Total employment fell by 1.1% in 2009, 2.7% in 2010 and 5.2% in Q1 2011 (full-time private employment fell by 1.6%, 3% and 5.4% respectively), while the unemployment rate rose from 9.5% in 2009 on yearly average to 12.6% in 2010, and reached 15.9% in Q1 2011. According to the last available provisional figures, in June 2011 total employment fell by 6.1% year-on-year and the unemployment rate reached 16% (equating with 793,000 people in absolute terms).

Inflation in Greece decelerated to 1.7% in August 2011, from an average inflation rate of 4.7% in 2010 and 1.3% in 2009. This surge in inflation in 2010 and in early 2011 was mainly due to the fact that fiscal adjustment in Greece is set to take place to a great extent through the increase of VAT and excise taxes, as well as through price hikes of services provided by deficit-ridden public sector bodies. Additional increases in VAT rates and other taxes from early 2011, combined with substantial increases in the price of oil and other commodities, kept the inflation rate at high levels in the first four months of 2011, and then a fast deceleration process took place from May 2011 onwards.

### Housing and mortgage markets

According to the Bank of Greece, residential property prices in Greece declined by 3.7% on average in 2009 and by 4.7% in 2010. Even though a deceleration in residential property price inflation has been registered over the last four years (it fell from 12.4% in 2006 to 5.9% in 2007 and then to 1.7% in 2008), Q1 2009 marked the first decrease in house prices on record. In Q1 2011 residential property prices fell by 5.2% year-on-year and in Q2 2011 by 4.5%. Residential property prices in the Athens area fell by 4.6% in 2009, 3.2% in 2010 and by 6% and 6.7% in Q1 and Q2 2011 respectively, after growing by 0.9% in 2008 and 6.2% in 2007.

Demand for residential property continues to fall as it results from the deceleration in the year-on-year growth rate of the outstanding housing loans (-1.7% in June 2011, from -0.3%, 3.7% and 11.2% in December 2010, 2008 and 2008 respectively). Weak demand is due to general economic conditions and prevailing uncertainty. Additionally, expectations of lower residential property price levels may have led households to postpone their purchase decisions. The more cautious attitude of banks in providing new housing loans has also contributed to the slowdown in credit expansion.

On the supply side, there is still a substantial stock of new houses unsold, which has remained more or less stable during the current financial crisis. According to data from the Bank of Greece, the residential property transactions' index fell by 44.7% in the first six months of 2011. The construction confidence indicator (including both dwellings and other private and public construction) registered a 31.4% average annual decrease in 2009, compared to average annual increases of 3% in 2008, 1.5% in 2007 and 44.6% in 2006. During 2010, this index fell by 27.4% on a yearly average, while in the first seven months of 2011 it fell by 36.5% year-on-year.

Concerning residential investment, the falling trend of residential construction activity continues unabated, registering a fall of 49.2% year-on-year from January to April 2011, compared with its fall by 23.6% in 2010, 26.5% in 2009, 17.1% in 2008, 5.0% in 2007 and 19.5% in 2006 and from a big increase of 35.2% in 2005. These developments led to a continuous falling trend of residential investment in real terms, i.e. of 18.6% in 2010, 21.7% in 2009, 29.1% in 2008 and 8.9% in 2007. It is now estimated that these investments will register another fall by 24% in 2011. Thus, residential investment is expected now to fall down to about EUR 5 billion in 2011 which is an extraordinarily low level for Greece, from EUR 14.7 billion in 2006. In the current period, the aforementioned adverse developments in consumer and business confidence continued to delay the revival of both residential investment and economic activity in this sector.

Thus, the fall in residential property prices is expected to continue in 2011, reflecting weak demand, prevailing uncertainty, banks' cautiousness in granting new housing loans, and the stock of unsold new houses. It should be added that real estate transaction costs are already very high and any further increase will dampen demand even further.

The recovery of the real estate market in Greece is directly linked to an improvement of household and businesses' expectations and a reduction of uncertainty, as well as to improvement in the banking system's financing, but also to the overall prospects of successfully dealing with the fiscal and structural problems of the economy.

During the current crisis, the more careful and selective stance of banks in terms of lending criteria is estimated to have contributed to an important decrease in the Loan-to-Value ratios (LTV). On average, LTV amounted to about 60% in 2010 instead of 79% in 2007. The proportion of non-performing loans (NPL) has increased substantially, i.e. from 5.0% in 2008 to 7.7% in 2009, 20.4% in 2010 and up to 11.5% in Q1 2011. As regards housing loans, this proportion was 5.3%, 7.4%, 10.0% and 10.7% respectively in the above-mentioned years.

### Funding

According to data from the Bank of Greece, the year-on-year growth rate in credit to the domestic private sector became negative in June 2011 (-1.2%, compared to 0%, 4.2% and 15.9% in December 2010, 2009 and 2008 respectively). However, credit expansion to enterprises still recorded positive growth, although it slowed down further to 0.2% in June 2011, from 1.1% in December 2010 and 5.2% in December 2009; meanwhile, the annual growth rate in credit to domestic individuals and private non-profit institutions turned even more negative in June 2011 (-2.5% year-on-year from -1.2% in December 2010 and 3.1% in December 2009). In particular, growth rate in consumer credit turned negative and went down to -5.8% in June 2011, and the negative rate of change of the outstanding balance of housing loans remained unchanged at -1.7%.

Developments in credit to the domestic private sector are expected to remain negative during the rest of 2011, as the weakness of economic activity is dampening demand for loans. The main constraint, however, affect the financing of credit expansion which - coupled with rising NPL ratios - leads to tighter lending criteria from banks.

During 2010, total deposits and repos of non-MFIs with MFIs in Greece (adjusted for changes in foreign exchange rates) fell by EUR 35.2 billion, that is by 12.6%. In detail, deposits of households fell by EUR 24.2 billion (or 12.3%), deposits of non-financial businesses fell by EUR 5.2 billion (or 12.9%), deposits of general government rose by 5.3 billion (or by 67.1%) and deposits of non-residents fell by EUR 11.1 billion (or by 32.6%). In the first half of 2011 the fall continued, but in July total deposits rose by EUR 7.8 billion, mainly because of a rise in deposits of general government. Thus, in the January to July 2011 period the cumulative fall in total deposits went down to EUR 18.9 billion.

	EU27, 2010	Greece, 2010	Greece, 2009
<b>GDP growth (%)</b>	1.8	-4.5	-2.0
<b>Unemployment rate (%)</b>	9.6	12.6	9.5
<b>Inflation (%)</b>	2.1	4.7	1.3
<b>% owner occupied</b>	68.9	80.1	80.0
<b>Residential Mortgage Loans as % GDP</b>	52.4	35.0	34.3
<b>Residential Mortgage Loans per capita, EUR thousand</b>	12.88	7.12	7.15
<b>Total value of Residential Loans, EUR million</b>	6,414,079	80,507	80,559
<b>Annual % house price growth</b>	0.7	-4.7	-3.7
<b>Typical mortgage rate (euro area), %</b>	2.78	3.79	3.41
<b>Outstanding Covered Bonds as % outstanding Residential Lending</b>	24.6	24.6	8.1

**Notes:**

- Typical mortgage rate euro area refers to the AAR/NDER (Source: ECB)
- EU owner occupation rate average derived from EMF calculations based on latest available data.

Greece = 2010

Source: EMF, Eurostat, ECB, Bank of Greece, National Statistical Service of Greece

# Hungary

By Gyula Nagy, Hungarian Banking Association

## Macroeconomic overview

Economic growth in Hungary returned to positive territory in 2010, with a real GDP growth rate of 1.2%, although the outlook remains fragile. This recovery is driven mainly by exports, while domestic demand continues to be subdued. In 2011 real GDP is expected to grow further and growth is foreseen to reach 2.5%. Although in the first half of 2010 households' demand appeared to improve – reflecting moderating inflation and stabilisation in the labour market – it faltered at the end of the year as a consequence of a temporary decline in households' real income. The inflation rate stood at 4.7% in 2010. In the context of tight credit conditions and weak demand, business investment declined further throughout the year.

The unemployment rate was 11.2% in 2010 (10% in 2009). The typical mortgage rate on HUF-denominated mortgage loans was 9.44 % in 2010, while mortgage lending in foreign currencies (EUR and CHF) was minimal due to the restrictions set by the government.

The Central Bank's base rate stood at 5.75 % at year-end (in January 2010 it was 6.25%).

The Hungarian market is deeply integrated into the euro area and is still highly sensitive to external shocks. The new Hungarian government – elected in spring 2010 – has therefore set the reduction of Hungarian sovereign debt as a priority. The outlook for future trends in Hungary strongly depends on the long-term effectiveness of the governmental programmes which have been put in place.

## Housing and mortgage markets

As regards the residential property market, both the pre-crisis surge and the post-crisis drop in prices can be considered moderate when making a cross-country comparison. This is primarily due to the fact that no real estate price bubble had developed in Hungary prior to the crisis. Although nominal housing prices rose steadily from the 2000s until the onset of the crisis, in real terms they had been stagnating since 2003 and started to decline in 2007. Since the outbreak of the crisis, a fall of 15% in nominal terms and a drop of 26% in real terms was recorded on the housing market. On a year-on-year basis, house prices dropped by 5.7% in 2010 compared to 2009 equating with a 9.2% decline in real terms.

The number of residential property transactions and residential constructions has fallen sharply since the outbreak of the crisis. Last year the number of residential property transactions barely exceeded 80,000 units, i.e. half the number of transactions in the year preceding the crisis (2008). In 2010, housing supply started to shrink, both for new and second-hand housing units. Construction dropped considerably and the estimated number of new housing units in 2010 barely reached half of the 35,000 units that had been recorded before the crisis. According to market research, newly-built housing units have already been absorbed by the market. The market of second-hand dwellings is still characterised by the prohibition of foreclosures, which is holding back supply.

Home ownership in Hungary reached 93% of the total stock of residential property; one of the highest figures in the EU, contributing to the fact that most of the increase in households' lending was due to the increase in mortgage lending. In 2010 the ratio of mortgage loans to loans to households reached 45% by the end of 2010, compared to 4% at the beginning of the 2000s.

Currently, in the household segment, constraints in both supply and demand pose problems for new lending activity. The prohibition of mortgage lending denominated in foreign currencies effectively suspended foreign-currency denominated mortgage lending. Furthermore, the Decree on prudent lending limits the loan-to-value ratio at 75% for HUF mortgage loans. The Decree also put an end to purely collateral-based lending; it requires banks to set up creditworthiness limits for all individual loan applicants defined as a proportion of their monthly income. The volume of new contracts barely reached one fifth of the pre-crisis level. Although households

are paying back significant amounts of their debts and there are also cases of early repayment (as well as increasing defaults), the stock of HUF-denominated loans is not decreasing due to the strengthening of the HUF. The prohibition of foreign-currency denominated mortgage lending drove the moderate mortgage demand toward HUF loans. Current interest rates on HUF-denominated mortgage loans imply an additional burden of 3 to 4 percentage points compared to foreign-denominated mortgage loans that were granted before the crisis.

The deterioration of the household loans' portfolio continued in 2010; the share of loans in arrears over 90 days in the residential mortgage loan portfolio reached 8.42%. However, the deterioration of the household loans portfolio slowed down thanks to increasing restructuring activity and write-offs. In Hungary, a moratorium on foreclosures and home evictions has prevented portfolio cleaning since early 2010. The moratorium is expected to be lifted with certain territorial and volume restrictions this year starting from July 1<sup>st</sup> 2011. The number of residential properties associated with mortgage loans due for longer than 90 days was over 90,000 at the end of 2010. This means that the number of non-performing mortgage loans exceeded the number of residential property sales recorded in 2010 (approx. 82,000). Currently, 20 to 30% of borrowers have a loan contract with negative equity and LTV stood at 102% at the end of the year (net LTV amounted to 75%). If we also take into account the fact that banks sometimes sell properties at a price which is below the collateral value, further losses are likely to be incurred once the moratorium on foreclosures is abolished.

An agreement is in its final stage between the government and the Banking Association for helping the distressed foreign-loans borrowers. This solution might ease the immediate repayment burden for this category of borrower, who suffer from the strong appreciation of the CHF against the HUF.

Some analysts, however, argue that this agreement is postponing the real solution for borrowers for another three to four years. Should the economy in Hungary continue to recover, these debtors will see an improvement in their situation, but should the economic situation remain uncertain, the problem (i.e. exposure to foreign-denominated risk) might arise again.

## Funding

Covered bonds are a common form of mortgage finance in Hungary. The legal act No. XXX, that was introduced for Mortgage Banks and Mortgage Bonds in 1997, was of significant help in establishing the covered bond market and provided support to mortgage lending activity. Covered bonds were the main source of funding for HUF-denominated mortgage loans until 2005. Due to the increase in foreign-denominated mortgage lending (EUR and mainly CHF) the proportion of covered bonds for mortgage lending started to decline from 2006 onwards, but covered bond finance to total mortgage loan portfolio still stood at 25% in 2010. More than 50% of the existing HUF mortgage loan portfolio, amounting to HUF 1,692 billion (EUR 6.1 billion) is still refinanced by covered bonds issued by the 3 mortgage banks in Hungary.

The overall covered bond volume (both HUF-denominated and foreign-denominated) amounted to HUF 1,681 billion (around EUR 6.1 billion) at the end of 2010. Its volume decreased by about 16.4% compared to the end of 2009 (when it amounted to HUF 2,011 billion, i.e. EUR 7.4 billion).

Mortgage backed securities are not used for mortgage funding in Hungary.

Given the increased importance of foreign-denominated mortgage loans over the years, the importance of deposit funding or cost effective foreign funds from parent banks (in the case of foreign-owned banks) was quite significant before the outburst of the crisis, but this growing trend came to a halt in 2009. The main reason for the withdrawal of banks' external funds is the downsizing of the liquidity buffer, while the other reason might be the weakened ability of the Hungarian banking system to attract foreign capital.

	EU27, 2010	Hungary, 2010	Hungary, 2009
GDP growth (%)	1.8	1.2	-6.7
Unemployment rate (%)	9.6	11.2	10.0
Inflation (%)	2.1	4.7	4.0
% owner occupied	68.9	93.0	92.0
Residential Mortgage Loans as % GDP	52.4	25.2	24.1
Residential Mortgage Loans per capita, EUR thousand	12.88	2.48	2.24
Total value of Residential Loans, EUR million	6,414,079	24,853	22,425
Annual % house price growth	0.7	-5.7	-6.3
Typical mortgage rate (euro area), %	2.78	9.44	9.23
Outstanding Covered Bonds as % outstanding Residential Lending	24.6	24.9	33.2

**Notes:**

- Typical mortgage rate euro area refers to the AAR/NDER (Source: ECB)
- EU owner occupation rate average derived from EMF calculations based on latest available data.

Hungary = 2010

Source: EMF, Eurostat, ECB, Central Bank of Hungary, National Statistics Office



## Ireland

By Tom O'Connor, Irish Banking Federation

### Macroeconomic overview

The Irish economy experienced another challenging year in 2010 although the rate of decline improved notably compared to the acute deterioration of 2009. Real GDP declined in real terms by 7% in 2009 but this eased to 0.4% in 2010 as the real economy began to recover, even experiencing quarterly growth in Q1 2010. The unemployment rate continued to increase but also at a slower rate, reaching 13.7% on yearly average (from 11.9% in 2009) – the number of unemployed grew by 31,600 compared to 72,000 the previous year. The labour force also reduced at a slower rate in 2010, declining by 33,000 compared to 69,100 in 2009.

Inflation in 2010 continued to be influenced by fiscal rebalancing measures as the Government sought to increase tax revenue and reduce expenditure, negative consumer sentiment and downward pressures on wage inflation because of the employment situation. Despite the surge in global commodity prices, on an annualised basis, prices declined compared to the previous year according to the Consumer Price Index. Ireland's inflation trend contrasted with that of the rest of the EU, with the Harmonised Index of Consumer Prices (HICP) showing that inflation in Ireland (1.6%) was well below that of other European economies with the euro area experiencing inflation of 1.6% and the EU that of 2.1%. This trend enhances Ireland's competitiveness relative to other European jurisdictions.

While the domestic economy struggled, the export sector, enhanced by improving competitiveness, continued to expand in 2010. Total exports (merchandise and services) grew by 9.4% compared to 2009 and with domestic demand subdued, resulted in a trade surplus of EUR 28.6 billion. Ireland's recovery is being led by the export sector which experienced its strongest performance since 2002.

### Housing and mortgage markets

The housing and mortgage markets experienced another challenging year contextualised by the macroeconomic environment outlined above and funding constraints for mortgage lenders. Demand for home loans continued to be impacted by subdued consumer sentiment as the Government continued with fiscal re-balancing measures such as expenditure cuts and changes to the tax system. Thus mortgage lending continued the trend of decline in place since 2007 with 27,666 loans drawn down at a value of EUR 4.75 billion, which represents a decrease of 40% in volume terms compared to 2009. Home purchasers (First and Subsequent-Time Buyers) continued to perform strongly compared to other segments in a shrinking market, accounting for, on average, 75% of the value of mortgage credit issued. This trend in new lending was paralleled by developments in net lending which declined by 8.2% in 2010 to reach EUR 135.8 billion, reflecting the ongoing deleveraging of households and financial institutions.

House prices also continued their downward trend with some easing in the rate of decline: the national average property price declined by 10.8% in 2010, compared to the fall of 18.5% in the previous year. The average house price nationally at end-2010 was EUR 191,776 and in contrast to 2009, house prices in Dublin declined more (-15.1%) compared to properties outside Dublin (-8.1%). Complementing the continued decrease in house prices, affordability continued to improve: it is estimated that the average First-Time Buyer (FTB) couple spent just 12.6% of their disposable income on mortgage repayments, compared to 23% three years previous. This is despite increases in interest rates for non-fixed mortgages, both new and existing. In Ireland, over half of the total residential mortgage book by value is on tracker rates which mirror the movement of the ECB main refinancing rate.

Unsurprisingly given the trajectories of house prices, and akin to the general European trend of a decline in residential investment, there was a further decrease in housing construction in 2010. The number of units completed fell to 14,602 – a 45% decrease compared to 2009. The number of housing starts also declined, although at a lesser rate, totalling 6,410 for 2010.

The challenging macroeconomic environment, and in particular the employment situation, continued to impact on the level of mortgage arrears for owner-occupied properties – the proportion of such mortgages more than 90 days in arrears increased from 3.6% at end-2009 to 5.7% one year later. Notably this trend of increasing arrears for borrowers did not translate to a significant increase in the volume of properties repossessed: 364 properties were taken into possession in 2010, 72% of these were surrendered or abandoned with 102 properties repossessed on foot of a Court Order. Mortgage lenders are active in assisting borrowers who experience repayment difficulties which is demonstrated by the 59,229 cases of mortgage re-structures which were in place at end-2010; of these cases, 35,205 (59%) were not actually in arrears.

With household finances being affected by rising unemployment, higher net tax contributions and reduced earnings, and significant State support provided to the banking sector, the Government established an Expert Group in 2010 to examine and make recommendations regarding mortgage arrears and personal debt. Among the Group's recommendations were enhanced protections for borrowers in arrears, such as a standardised Mortgage Arrears Resolution Process (MARP) for lenders, a ban on the application of penalty interest, and set arrangements for borrowers with unsustainable mortgages.

Up until 2008, stamp duty on property transactions had generated significant revenues for the State which decreased sharply with the property market decline. As part of the initial reform of taxation, the Government introduced a standing annual tax on buy-to-let properties and holiday homes in 2009. In 2010, the stamp duty regime was reformed: the exemptions for FTB's and new properties were removed and a rate of 1% applied to properties of a value of EUR 1 million or less, and a rate of 2% applied to the balance for properties valued at more than EUR 1,000,000. These changes came into effect in December 2010 with a view to stimulating the housing market. The volume of transactions based on mortgage draw down data fell to 18,313 for 2010, 27% less than in the previous year. Despite property being more affordable than it has been for many years, negative consumer sentiment prevails, with no increase in property prices expected in 2011.

For mortgage lenders, 2010 represented a nadir for the industry with much of the sector entering into State ownership. The discounts applied to property loan assets transferred to the State asset recovery body (National Asset Management Agency, NAMA) became steeper as time went on reaching an average of 60%. In total, loan assets with a nominal value of EUR 71.2 billion were transferred to NAMA and, as a consequence of these losses, further recapitalisation was required for participating institutions reaching a total of EUR 45 billion for the sector. With strengthened capital positions and deleveraged balance sheets, it was envisaged that the domestic banking institutions would be better positioned to service the credit and savings needs of the domestic economy in the future.

### Funding

Mortgage funding conditions remained challenging in 2010 for Irish lenders given the developments in European debt markets, the continued deterioration of the Irish economy, and the pending recapitalisation of the domestic banking sector. In Q3 2010, there was increased utilisation of short-term funding from the ECB and Central Bank of Ireland which was a factor leading to the Memorandum of Understanding (MoU) between the Irish Government and the EU and International Monetary Fund (IMF). Under the MoU, it was agreed that the Central Bank of Ireland would conduct rigorous stress testing of domestic banking institutions: a Prudential Capital Assessment Review (PCAR) would be completed in 2011 setting a capital target of 10.5% Core Tier 1 while a Prudential Liquidity Assessment Review (PLAR) would outline levels of required de-leveraging for domestic banking institutions in order to reduce the loan-to-deposit ratio to an aggregate target of 122.5%. The objective of this exercise, conducted using more conservative macroeconomic assumptions and longer-term horizons than the equivalent stress testing of the European Banking Authority (EBA), was to restore market confidence in the domestic banking institutions and facilitate access to funding.

Competition for deposits intensified in 2010 particularly given the loss of international deposits in Q3 2010. Funding conditions remained adverse with no debt securities issuances to market in 2010, even in Government Guaranteed format. The level of both securitisation and Covered Bond issuance declined in 2010 with new issuances being retained for repo collateral. The level of Mortgage-Backed Securities outstanding fell by 4% to EUR 36.2 billion while the same figure for mortgage Covered Bonds declined by 2% to EUR 29 billion. As net residential lending declined, the proportion of funding accounted for by Covered Bonds and Mortgage-Backed securities increased to 21.4% and 26.7% respectively. As noted above, it was anticipated that the domestic stress testing exercises would strengthen the funding positions of banking institutions following recapitalisation.

	EU27, 2010	Ireland, 2010	Ireland, 2009
<b>GDP growth (%)</b>	1.8	-0.4	-7.0
<b>Unemployment rate (%)</b>	9.6	13.7	11.9
<b>Inflation (%)</b>	2.1	-1.6	-1.7
<b>% owner occupied</b>	68.9	74.5	74.5
<b>Residential Mortgage Loans as % GDP</b>	52.4	87.1	92.1
<b>Residential Mortgage Loans per capita, EUR thousand</b>	12.88	30.40	33.25
<b>Total value of Residential Loans, EUR million</b>	6,414,079	135,806	147,947
<b>Annual % house price growth</b>	0.7	-10.8	-18.5
<b>Typical mortgage rate (euro area), %</b>	2.78	3.01	2.61
<b>Outstanding Covered Bonds as % outstanding Residential Lending</b>	24.6	21.4	20.1

Source: EMF, Eurostat, ECB, Financial Services Authority of Ireland, Central Statistics Office, Department of the Environment, Heritage and Local Government, European Securitisation Forum, IBF/PwC Mortgage Market Profile

**Notes:**

- Typical mortgage rate euro area refers to the AAR/NDER (Source: ECB)
- EU owner occupation rate average derived from EMF calculations based on latest available data.

Ireland = 2010

## Italy

By Marco Marino, Italian Banking Association

### Macroeconomic overview

In 2010, Italian real GDP started to grow again, following the considerable decrease recorded in 2009 (of 5.2%), but at a lower growth rate compared to the euro area (1.3% against 1.8%). The recovery in economic activity was driven, in particular, by exports (up by 9.1%), stimulated by a strong recovery in global trade, which offset the limited recovery in domestic demand and stagnation in household consumption (up by just 1%).

The moderate growth in Italian household consumption reflected the weakness in gross disposable income, which fell by 0.5% in real terms, and weak prospects for the labour market. Employment fell further, although at a lower rate than the previous year. The unemployment rate in Italy rose from 7.8% in 2009 to 8.4%; the increase was more pronounced for men, and particularly for young people. Industrial production in Italy, as in other main advanced economies, started to grow again in 2010, at a rate of 5.4% (after a fall of 18.2% in 2009).

Gross fixed investment rose by 2.5% in 2010. This increase reflected the recovery in equipment (9.6%), which was partially offset by another decrease in construction investment (of 3.7%). The propensity to invest (as percentage of GDP) remained stable at 19.3%, still more than 1% below the last decade's average.

In 2010, the the harmonised index of consumer prices (HICP) accelerated to 1.6% on average after very moderate developments in 2009 (0.8%). The increase was almost entirely due to the increase in energy prices (of 7.4%, compared to a decrease of 8.1% in 2009), while foodstuffs provided a limited contribution to the HICP increase (i.e. a rise of 1.1%, after 0.7% in 2009).

As of December 2010, the weighted average interest rate on total loans to households and non-financial companies granted by the ABI (Italian Banking Association) was 3.62%, close to its historic low.

### Housing and mortgage markets

According to a 2008 Survey from the Bank of Italy, the value of the residential property market accounted for almost one fifth of GDP. Data available from the Public Real Estate Registry Office reveals that in 2010 home sales recorded a slight increase on 2009 (0.5%), reaching over 611,000 units, compared to roughly 609,000 units in 2009. With reference to house prices, these remained essentially flat in 2010 compared to 2009.

The number of building permits issued for the construction of new homes, after having peaked in 2005 (with roughly 278,602 permits), fell sharply in the subsequent three-year period, down to 191,783 units in 2008 (according to the latest data available). In 2010, around 204,000 new housing units were completed, down 17% on 2009 but this is, however, in line with the slowdown that has been recorded in Italy since 2006.

Loans to the property sector accounted for a significant portion of total bank credit. The value of outstanding residential mortgages rose from roughly EUR 290 billion in 2009 to more than EUR 350 billion in 2010, corresponding to an increase of 21% (net residential lending stood at around EUR 61 billion) significantly higher than the increase recorded in the 2008-2009 period (7%). Gross residential lending rose by around 10% in the 2009-2010 period, from approximately EUR 61 billion in 2009 to more than EUR 66 billion in 2010.

The interest rates on loans to households for house purchases increased slightly, but remained at particularly low levels, i.e. from 2.88% in 2009 to 2.97% in 2010.

As of December 2010, an analysis of risk indicators showed signs of improvement. In particular, minor arrears (past due 1 to 2 unpaid installments) fell to their historical low, i.e. to 1.8%; serious arrears also decreased on 2009 (by 1.3%), standing at 1.2%; lastly, the loan loss rate was 3.5%. This trend reflects a combination of factors which affected the quality of credit such as the moratorium for households as well as mortgage portability and renegotiation.

In light of this, in 2009 the Italian Banking Association launched a scheme aiming at supporting residential mortgage borrowers, in the form of a temporary suspension of mortgage installments. The latter measure is part of a more general programme for households, called the "Household Plan". In short, the installment suspension scheme:

- envisages the suspension of mortgage payments for at least 12 months;
- applies to mortgages up EUR 150,000 granted for house purchase or renovation;
- applies to customers with a taxable annual income up to EUR 40,000;
- applies to those borrowers that have suffered particularly unfortunate events in the two-year period from 2009 to 2010 (job loss, conditions of non self-sufficiency, inclusion in the temporary redundancy scheme).

The above conditions represent the minimum requirement to be applied by member banks that wish to join the programme, although each bank is free to offer its customers better conditions. The initiative has been extended to January 31<sup>st</sup>, 2012.

### Funding

In 2010, funding activities in Italy recorded a positive trend. As of December 2010, EUR-denominated deposits of all banks in Italy, comprised of resident customer deposits (current account deposits, term deposits, deposits redeemable at notice and repos) and bonds, amounted to EUR 2,185 billion equating a growth rate of 3.3%. A breakdown by each component shows that resident customer deposits recorded a growth rate of 6.6%, while bank bonds fell by 1.5% year-on-year. The average interest rate of bank deposits from customers stood at 1.50% in December 2010, a slight increase compared to 2009.

As regards securitisation of mortgage loans, the volume of transactions amounted to EUR 10 billion in 2010, representing a decrease of 81% compared to 2009 (when securitisation amounted to EUR 52,343 million).

With regard to covered bonds, issues amounted to EUR 12.9 billion in 2010, corresponding to an increase of 39% on the previous year (EUR 7.5 billion in 2009).

	EU27, 2010	Italy, 2010	Italy, 2009
<b>GDP growth (%)</b>	1.8	1.3	-5.2
<b>Unemployment rate (%)</b>	9.6	8.4	7.8
<b>Inflation (%)</b>	2.1	1.6	0.8
<b>% owner occupied</b>	68.9	80.0	80.0
<b>Residential Mortgage Loans as % GDP</b>	52.4	22.7	19.2
<b>Residential Mortgage Loans per capita, EUR thousand</b>	12.88	5.83	4.85
<b>Total value of Residential Loans, EUR million</b>	6,414,079	352,012	291,160
<b>Annual % house price growth</b>	0.7	0.1	-0.4
<b>Typical mortgage rate (euro area), %</b>	2.78	2.97	2.88
<b>Outstanding Covered Bonds as % outstanding Residential Lending</b>	24.6	7.6	4.2

Source: EMF, Eurostat, ECB, Bank of Italy, ISTAT, Agenzia del Territorio

#### Notes:

- Typical mortgage rate euro area refers to the AAR/NDER (Source: ECB)
- EU owner occupation rate average derived from EMF calculations based on latest available data.

Italy = 2008



# Latvia

By Alessandro Sciamarelli, EMF

## Macroeconomic overview

The global economic downturn of 2008 and 2009 impacted the Baltic economies more severely than the rest of the EU in 2009, with no clear signs of recovery in 2010. Latvia followed this trend, although the economic recession eased in 2010 as real GDP recorded a moderate fall (of 0.3%) after the tremendous plunge of 2009 (-18%). The huge process of deleveraging from excess households' borrowing and the prolonged downturn in the housing market after the crash of 2008 and 2009 continued to impact the Latvian economy during 2010. Government consumption dramatically fell by 11%, as did gross fixed capital formation (19.5%). As a result, domestic demand contribution was again negative, even much less than in the previous year (0.9% in 2010 against 32.2% in 2009). The economic downturn placed public finances under serious pressure, as government debt to GDP ratio went up from 9% in 2007 to 44.2% in 2010 – yet government deficit remained above the 3% Maastricht ceiling in 2010 (7.7% of GDP) but decreased compared to 2009 (9.7%).

Conversely, exports bounced back in 2010 (4.8%) after the fall in 2009 (of 6.3%) thereby providing the strongest contribution to GDP growth, while imports declined by 4.3% in line with the decrease in domestic demand. As a result, the current account recorded another surplus (3.6% of GDP), after the more robust one recorded in 2009 (8.6%). It is worth noting the huge credit expansion recorded between 2000 and 2007 was associated with wide current account deficits which clearly became unsustainable (rising to a peak of 22.5% in 2006).

After the 2007-2008 two-digit figures (i.e. 10.1% and 15.3% respectively), the inflation rate dramatically stepped back down to 3.3% in 2009 as a result of the recession, and in 2010 went even into negative territory (-1.2%).

Labour market conditions continued to deteriorate as a result of the general economic downturn, and the unemployment rate on yearly average reached the record high of 18.7%.

The policy interest rates set by the Latvian Central Bank had been gradually raised between 2006 and 2007 (i.e. around the peak of the booming economic cycle) up to 6.00%, to curb the impetuous growth in credit. After the start of the crisis, the Central Bank reacted rapidly and cut policy rates three times, from 6.00% to 5.00% in Q1 2009, from 5.00% to 4.00% in Q2 2009 and then down to 3.50% in Q1 2010. These cuts aimed at mitigating the effects of the crisis and to support the banking sector and the economy.

## Housing and mortgage markets

The housing market in Latvia during 2010 performed in line with macroeconomic developments. In other words, the market did not recover from the collapse in 2008 and 2009 and appeared to be at a standstill, as market actors continued to wait and see. However, according to the real estate company Latio<sup>43</sup>, house prices in Latvia bottomed out in 2009 and started increasing again from 2010, recording a 18% growth rate over the previous year.

Data on house prices is available until 2008, when prices went down by 18.4% year-on-year, after years of spectacular annual growth rates (i.e. 60.7% in 2006).

As regards residential construction activity, housing completions were only 1,918 in 2010, i.e. down by 54.2% on 2009, (and 79.4% less than the 9,319 units peak reached in 2007), which was the third consecutive year of decline.

Despite frozen residential construction activity, housing supply still outpaced demand in 2010 due to the excess housing stock that was accumulated during the booming residential cycle, and which drove the vacancy rate to up 30%.

The rapid expansion of Latvia's mortgage market over recent years was impressive, being fuelled by low interest rates and the entry of foreign banks in the domestic market. Outstanding mortgage lending grew on annual average by a bullish 79.4% between 1998

and 2008. The slowdown in lending started in early 2007, driven by concerns among foreign banks about their overexposure to the Baltic countries, and at end-2007 growth rate in mortgage lending halved compared to what was recorded in 2006 (42.1% vs. 88.1%). As a result of the crisis, mortgage lending in 2008 grew by only 7.3%, while it went into recession for the first time in 2009, having fallen on the previous year by 4.6%. Recession in mortgage lending continued in 2010 and the same rate of decline as in 2009.

Total mortgage debt as a percentage of GDP grew extremely rapidly and went from 0.7% in 1999 to the peak of 36.8% in 2009, after moving around 30% in the three previous years. In 2010 it decreased slightly to 36.2%.

In recent years, interest rates on mortgage loans were very sensitive due to the fact that the LTL has been pegged to the EUR. Most mortgage loans in Latvia are either fully granted at floating rate or granted for one year at fixed rate, and around 40% of all loans are denominated in the domestic currency. Due to the peg pressure, when the ECB started to raise its policy rate in 2007 it provided an upward pressure on the average LTV-denominated mortgage interest rates which since then remained above 10%. Even when the ECB vigorously lowered its policy rate between 2008 and 2009 down to the historical low of 1%, the LTL-denominated mortgage interest rates moved around 15% in the first half of 2009, and went below 10% only in December 2009, due to the expansionary monetary policy action undertaken by the Central Bank of Latvia. Interest rates on EUR-denominated loans decreased from 4.50% at end-2009 to 4.15% at end-2010, while interest rates on LTV-denominated housing loans were at 9.25% at end-2009 and 5.81% at end-2010.

## Funding

In 2010 outstanding mortgage covered bonds in Latvia were worth EUR 63 billion (they were EUR 85 billion in 2009), accounting for 1% of outstanding mortgage lending, but there was no issuance of mortgage covered bonds throughout the year. The value of outstanding covered bonds decreased by 26.1% on 2009, in line with the decline in mortgage lending. Mortgage funding in Latvia is mainly deposit and liability based.

	EU27, 2010	Latvia, 2010	Latvia, 2009
GDP growth (%)	1.8	-0.3	-18.0
Unemployment rate (%)	9.6	18.7	17.1
Inflation (%)	2.1	-1.2	3.3
% owner occupied	68.9	n/a	87.0
Residential Mortgage Loans as % GDP	52.4	36.2	36.8
Residential Mortgage Loans per capita, EUR thousand	12.88	2.89	3.01
Total value of Residential Loans, EUR million	6,414,079	6,498	6,808
Annual % house price growth	0.7	n/a	n/a
Typical mortgage rate (euro area), %	2.78	4.15 <sup>44</sup>	4.50
Outstanding Covered Bonds as % outstanding Residential Lending	24.6	1.0	1.2

Source: EMF, Eurostat, ECB, Bank of Latvia, Central Statistical Bureau of Latvia

### Notes:

- Typical mortgage rate euro area refers to the AAR/NDER (Source: ECB)
- EU owner occupation rate average derived from EMF calculations based on latest available data.

Latvia = 2009

<sup>43</sup> Real Estate market Report Latvia 2010, available at [www.latio.eu](http://www.latio.eu).

<sup>44</sup> APRC on EUR-denominated new loans for house purchase.

# Lithuania

By Jonas Grincius, Parex Bank

## Macroeconomic overview

During 2010 the Lithuanian economy experienced a positive GDP growth of 1.3%, which represented a recovery from the 14.7% decline of 2009. The main drivers of this recovery were industry and construction, with annual real increases of 12.2% and 7.8% respectively. It is expected that the recovery will continue in 2011 with a real GDP growth rate of 4%.

In spite of the improved macroeconomic conditions, the unemployment rate continued to increase in 2010 and reached 17.8%, compared to 13.7% of 2009. At the end of 2010 the economic recovery started to have a positive influence on the labour market and the demand for skilled work picked up. On the other hand demand for low-skilled labour still proved weak, which increased the flow of emigration. Emigration to EU15 Member States, mainly the UK, continues to be a major issue, putting downward pressure on potential output.

As the decrease in prices of raw materials and the decline in demand pushed down inflation in all EU countries, in Lithuania low inflation was counteracted by the increases in VAT and excises. Average inflation for 2010 was 1.2%, while in 2009 it was 4.2%. An expected robust increase of food prices and energy resources is predicted to drive consumer prices upward to a forecast inflation of 3.5% in 2011. Government fiscal discipline continued to boost confidence in the national monetary system, and average interest rates on loans in LTL decreased from 8.14% of 2009 to 5.62% in 2010. Taking into account changes in ECB monetary policy and prospects of economic recovery, rates on mortgages denominated in LTL for end-2011 are forecast at about 6.75%. It must be noted that this forecast is based on the assumption that the country risk premium will remain at a minimum level.

## Housing and mortgage markets

The effects of the economic downturn of 2009 were still noticeable during 2010, but after a fall in house prices of 30% in 2009, the decline in 2010 was less dramatic, ranging from 6% to 8% in major cities and house prices even increased by 0.1% in the capital Region of Vilnius (a national average is not available). Based on this information, it is believed that some of the real estate market segments may bottom out in 2011 or as late as the beginning of 2012.

The statistical data for the construction and real estate sectors did not show improvements during 2010, as there were 3,667 residential buildings completed, representing a fall of 61% compared to 2009.

Outstanding loans to households for house purchase decreased by 0.7% in 2010 and were worth EUR 5,988 million at the end of year. Loan balances to households remained almost unchanged for the second consecutive year, the last positive growth rate having been of 24.9% in 2008.

Total residential mortgages as a proportion of GDP were 21.8% in Lithuania at end-2010, slightly below the level of 2009 (22.8%).

Interest rates on new loans for house purchase fell slightly in 2010, as more banks returned to the mortgage lending business. The competitive landscape is quite fragmented as banks are offering margins ranging from 1.5% to 4%. The weighted average interest rate on EUR-denominated loans to households for house purchase was 3.21% in December 2010; the same rate was 3.64% in December 2009. Following austerity measures introduced by the Lithuanian Government, markets reacted positively by reducing perceived risk associated with local currency lending. The weighted average interest rate on LTL-denominated loans to households for house purchase was 4.75% in December 2010, while the respective rate was 8.81% in December 2009.

## Funding

In 2010 the two major sources of mortgage funding remained parent banks and deposits. Restrained optimism about the economic outlook prevented banks from using other forms of funding. Due to the subdued conditions of the banking market in Lithuania it should be assumed that deposits and funds from parent banks will remain the main funding source in 2011 for the banking sector in general and mortgages in particular.

	EU27, 2010	Lithuania, 2010	Lithuania, 2009
GDP growth (%)	1.8	1.3	-14.7
Unemployment rate (%)	9.6	17.8	13.7
Inflation (%)	2.1	1.2	4.2
% owner occupied	68.9	n/a	91.0
Residential Mortgage Loans as % GDP	52.4	21.8	22.8
Residential Mortgage Loans per capita, EUR thousand	12.88	1.80	1.80
Total value of Residential Loans, EUR million	6,414,079	5,988a	6,032
Annual % house price growth	0.7	n/a	n/a
Typical mortgage rate (euro area), %	2.78	3.21	3.64
Outstanding Covered Bonds as % outstanding Residential Lending	24.6	n/a	n/a

Source: EMF, Eurostat, ECB, Bank of Italy, ISTAT, Agenzia del Territorio

### Notes:

- Typical mortgage rate euro area refers to the AAR/NDER (Source: ECB)
- EU owner occupation rate average derived from EMF calculations based on latest available data.

Italy = 2008

# Luxembourg

By Alessandro Sciamarelli, EMF

## Macroeconomic overview

In 2010, Luxembourg saw a year-on-year recovery in real GDP of 3.5% after experiencing in 2009 its first economic recession since 1981 (by 3.6%, revised from the former 3.4%), which stemmed from the global financial and macroeconomic turmoil. Gross fixed investment, after the slump of 19.2% in 2009, picked up in 2010 and increased by 2.6%. The strongest contribution to GDP growth in 2010, however, came from exports (10.6%) which largely benefited from the strong recovery of neighbouring economies (mostly Germany), while the contribution from domestic demand was still weak (a tiny 0.4%, after a negative contribution of 0.8% in 2009). As a result of the vigorous performance of exports, the current account balance further improved compared to the previous year, and recorded a surplus of 7.8% of GDP (vs 6.9% in 2009).

As a consequence of the economic upswing, inflation accelerated during 2010 after remaining flat in 2009, but nonetheless remained moderate (the HICP rose on yearly average by 2.8%) and well below the record high of 2008 (4.1%). As a response to improved macroeconomic conditions, the unemployment rate decreased from 5.1% (revised; formerly 5.4%) in 2009 to 4.5% in 2010, returning below the level of 2008. However, total employment increased by a modest 1.6%, which was a higher rate than the 0.9% recorded in the previous year but also lower than the years between 2001 and 2005 (3.1% on yearly average). After recording its first deficit since 2004 in 2009 (0.9% of GDP), the government budget balance slightly worsened in 2010 and the deficit increased to 1.7% of GDP, albeit remaining well below the 3% ceiling imposed by the Maastricht Treaty. Government debt reached another high since 1972 due to pressures stemming from the economic recession (18.4% of GDP).

## Housing and mortgage markets

The effects of the economic downturn of 2009 were still noticeable during 2010, Contrary to what was observed in most other advanced EU economies, residential construction activity proved resilient in Luxembourg in 2009 and 2010, being only partly affected by the macroeconomic environment: the year-on-year fall recorded in building permits in 2009 (of 8%) was comparably lower to what was recorded in most EU15 economies. In 2010, the annual growth rate in the number of new building permits returned into positive territory (5.3%). New building permits reached 3,981 units, which was however still 21% lower than the peak of 2007, while no data on housing completions is available for 2010.

Real residential investment recorded spectacular year-on-year growth rates in the years between 2003 and 2007 (12.3% on annual average), but dropped by 0.3% in 2008 and recovered by 1.9% in 2009. Yet, in 2010 housing investment experienced another, albeit modest, decrease of 0.7%, following from the fall in house prices of the previous year. In fact, on the demand side, house prices increased by 4.5% and showed signs of a reviving housing market after the fall of 2.1% in 2009.

Outstanding mortgage lending reached EUR 18.6 billion, which represented an annual increase of 8.9%, against the 7.1% growth rate of 2009. Mortgage interest rates reached the new historical low of 1.88% at end-2010 (from 2.03% at end-2009) as a result of the continued expansionary monetary policy within the euro area.

	EU27, 2010	Luxembourg, 2010	Luxembourg, 2009
GDP growth (%)	1.8	3.5	-3.6
Unemployment rate (%)	9.6	4.5	5.1
Inflation (%)	2.1	2.8	0.0
% owner occupied	68.9	n/a	70.4
Residential Mortgage Loans as % GDP	52.4	44.7	44.9
Residential Mortgage Loans per capita, EUR thousand	12.88	37.03	34.60
Total value of Residential Loans, EUR million	6,414,079	18,591	17,077
Annual % house price growth	0.7	4.5	-2.1
Typical mortgage rate (euro area), %	2.78	1.88	2.03
Outstanding Covered Bonds as % outstanding Residential Lending	24.6	n/a	n/a

Source: EMF, Eurostat, ECB, Central Bank of Luxembourg, Statistics Luxembourg

### Notes:

- Typical mortgage rate euro area refers to the AAR/NDER (Source: ECB)
- EU owner occupation rate average derived from EMF calculations based on latest available data.

Luxembourg = 2009

# Malta

By Peter Sant, Bank of Valletta

## Macroeconomic overview

In 2010, the Maltese Gross Domestic Product increased by 3.2% in real terms, reaching EUR 6.2 billion, compared to the contraction of 3.3% registered in 2009. GDP growth was largely driven by net external demand, as exports outpaced imports, although investment also provided a positive contribution. In terms of quarterly data, economic expansion was particularly strong in Q1 2010 (4.1%), but then was more moderate in the next two quarters, before accelerating again (3.9%) in Q4 2010. Real GDP growth is expected to ease in 2011, before picking up again in 2012.

There was also a recovery in employment during 2010, reflecting positive developments in the economy, while unemployment generally eased throughout the year. The average employment rate stood at 56.8% whilst the unemployment rate stood at 6.8% (7% in 2009).

Annual HICP inflation climbed above zero at the beginning of 2010 and then accelerated during the year, reaching 4.0% in December, up from -0.4% a year earlier. This acceleration in inflation was influenced by energy price trends. On an annual basis, Malta's average annual inflation rate in 2010 (2.0%) was 0.4% higher than that of the entire euro area (1.6%).

## Housing and mortgage markets

The number of household dwellings in Malta stands at over 140,000 units. Home ownership increased from 65% in 1995 to 75% in 2005 and to 79.2% in 2009 according to Eurostat data. During 2010, the number of residential building permits issued by the Malta Environment and Planning Authority decreased for the third consecutive year, to around 4,445 (-16.1% on 2009). However, this downward trend stabilised 2010, having followed two drops of 17% and 43.7% in 2009 and 2008 respectively. The decline in the number of permits highlights the tightened criteria in urban planning policy and the slowdown in construction activity.

The number of permits for apartments (which account for more than four fifths of the total) – fell by 19.1% on the previous year. Furthermore, permits for the construction of maisonettes dropped by 6.3%. However, there was an increase of 24.7% in the issue of permits for terraced houses and for “other categories of residential dwellings”. In absolute terms, the number of permits issued in 2010 for the construction of residential dwellings, by type, were: 3,736 apartments (4,616 in 2009), 375 maisonettes (400 in 2009), 227 terraced houses (182 in 2009) and 106 pertaining to “other” (100 in 2009).

The Central Bank of Malta's index of residential property prices increased by 1.1% on average in 2010, after having fallen by 2.7% in 2008 and by 5.0% in 2009. The increase in the index was due to increased demand for both apartments and for the “other categories” of residential dwellings. The gross added value of construction activity amounted to EUR 194.8 million in 2010, which represented 3.1% of gross value added in GDP. The total number of persons employed in the construction industry amounted to 12,173 in 2010 compared to 12,739 in 2009.

Household mortgage loans remained the largest category of banks' lending to residents, although their annual growth rate eased to 8.6% in 2010, from 11% in 2009. The total amount of new lending for house purchase amounted to more than EUR 210 million in 2010. The total amount of outstanding lending for house purchase in December 2010 amounted to over EUR 2.6 billion which represents around 34% of lending to residents. Total outstanding mortgage lending amounted to 43.5% of Maltese GDP in 2010.

At the end of 2010, the interest rates on new mortgage loans for house purchases stabilised at 3.46% (after 3.52% at end-2009). There are currently over 53,000 unsold properties in the Maltese Islands, of which between 8,000 and 10,000 were put on the market for sale at any point in time. Over 10,000 luxury flats are expected to be put on the market in the next years. These luxury flats form part of projects that have been undertaken by Maltese and foreign investors, who are targeting market players from both local and foreign high-income segments.

## Funding

In practice, 100% of the mortgage funding of Maltese banks is made up of their customer deposits. On average, the loan to deposit ratio is 70%.

	EU27, 2010	Malta, 2010	Malta, 2009
GDP growth (%)	1.8	3.2	-3.3
Unemployment rate (%)	9.6	6.8	7.0
Inflation (%)	2.1	2.0	1.8
% owner occupied	68.9	n/a	79.2
Residential Mortgage Loans as % GDP	52.4	43.5	42.4
Residential Mortgage Loans per capita, EUR thousand	12.88	6.50	5.98
Total value of Residential Loans, EUR million	6,414,079	2,684	2,472
Annual % house price growth	0.7	1.1	-5.0
Typical mortgage rate (euro area), %	2.78	3.46	3.52
Outstanding Covered Bonds as % outstanding Residential Lending	24.6	n/a	n/a

Source: EMF, Eurostat, ECB, Central Bank of Malta, Malta Environment and Planning Authority (MEPA)

### Notes:

- Typical mortgage rate euro area refers to the AAR/NDER (Source: ECB)
- EU owner occupation rate average derived from EMF calculations based on latest available data.

Malta = 2009

# The Netherlands

By Nico de Vries and Dmitry Fleming, ING Bank, Alessandro Sciamarelli, EMF

## Macroeconomic overview

After contracting by 3.9% in 2009, the Dutch economy expanded by 1.6% in 2010. Historically, exports have always led the Dutch economy toward recovery. This time has not been any different, but the slowdown in world trade is starting to take its toll. Last year, the export volume expanded by 10.8% versus 6.3% in the first half of 2011. Meanwhile, there is still no sign of private consumption taking over from export as the main engine of growth. In 2010, private consumption posted a small increase, but that was to a large extent driven by the cold winter, inducing households to consume more heating gas. Low confidence levels and falling households' purchasing power weighed heavily on consumer non-discretionary spending. Confronted with weak sales outlooks and low production capacity levels, businesses further scaled back capital spending to the levels last seen in 2004. The overall investment volume (private and public) contracted by over 4% last year.

After rising significantly during the crisis, unemployment headed lower again in the course of 2010. The harmonised unemployment rate averaged 4.5% in 2010. Despite a rise in the second half of the year, consumer price inflation remained relatively low in 2010 (1.3%). The harmonised consumer price index, which for example excludes the owners' equivalent rent, was even lower (2010: 0.9%). In the first half of 2011, a further increase in food and energy prices have pushed inflation further up.

## Housing and mortgage markets

In 2010, the Dutch housing market for existing owner-occupied homes experienced another year of subdued activity, with both price levels and the number of transactions reaching a new low. The declining transaction volumes and the further increases in the number of homes for sale suggest that there is a mismatch between supply and demand. The austerity measures implemented by the Dutch government, the higher interest rates, and lastly the European debt crisis have all contributed to undermine confidence in the housing market throughout 2010. This deterioration in consumers' confidence resulted in lower demand for owner-occupied homes. Many potential sellers have so far been reluctant to adjust their prices to current market conditions.

The decline in residential construction activity in the Netherlands continued in 2010. Building permits decreased by 16% compared to 2009. The number of housing completions went down by 32.5% as a consequence of the 16.7% year-on-year drop in building permits in 2009. The housing market recorded 126,127 transactions, which represented a fall of 1.1% compared to 2009, thus much less pronounced than in 2009 (of 30.1%).

National average house prices continued to fall (by 2%, after 3.3% in 2009). It is worth noting that the decline in residential construction of the past few years, coupled with no "residential construction bubble" (which other EU countries experienced in the course of the 2000s), resulted in a chronicle lack of housing supply which largely contributed to prevent house prices from collapsing.

As a response to the stagnation of the housing market and in order to boost its recovery, the government decided to lower the "Transfer Tax". This measure aimed at fostering agreement between buyers and sellers and revving up the housing market. On balance, a total of 125,000 homes are expected to change ownership in 2011; for 2012, this number is expected to be around 133,000. However, the reduction in the Transfer Tax is not likely per se to ensure recovery in the housing market and to significantly boost changes in price trends. This measure will trigger a faster increase in supply than in than demand, thereby increasing competition between sellers. Furthermore, buyers' borrowing capacity will remain low as a result of the austerity measures, which is expected to negatively affect affordability. House prices at the national level are expected to decline by another 2% in 2011 and by another 2.5% in 2012. Over the long term, new residential construction could be negatively affected by the reduction in the Transfer Tax, since new homes

will become relatively more expensive than existing homes. However, a positive factor for the residential construction industry is that the number of renovations will potentially increase due to the increase in the volume of transactions.

In 2010, outstanding residential loans amounted to EUR 629.2 billion, representing an annual increase of 2.5% (a slowdown compared to 4.3% in 2009) and accounting for 107.1% of GDP. Residential mortgage debt to GDP ratio went above 100% for the second consecutive year. Net residential lending reached EUR 15.3 billion, i.e. the lowest level on record. At year-end 2010, representative interest rates on mortgage loans went down to the record low of 4.57% from 5.26% at year-end 2009.

## Funding

Mortgage covered bonds in 2010 amounted to EUR 40.8 billion, that is 6.5% of outstanding mortgage lending, while covered bond issuance reached EUR 13.7 billion. Mortgage funding through securitisation in 2010 was worth EUR 125 billion (in terms of Residential Mortgage-Backed Securities outstanding), equating with 19.9% of outstanding mortgage lending.

	EU27, 2010	Netherlands, 2010	Netherlands, 2009
GDP growth (%)	1.8	1.8	-3.9
Unemployment rate (%)	9.6	4.5	3.7
Inflation (%)	2.1	0.9	1.0
% owner occupied	68.9	n/a	55.5
Residential Mortgage Loans as % GDP	52.4	107.1	105.4
Residential Mortgage Loans per capita, EUR thousand	12.88	38.01	36.53
Total value of Residential Loans, EUR million	6,414,079	629,153	613,877
Annual % house price growth	0.7	-2.0	-3.3
Typical mortgage rate (euro area), %	2.78	4.57	5.26
Outstanding Covered Bonds as % outstanding Residential Lending	24.6	6.5	4.6

Source: EMF, Eurostat, ECB, Dutch National Bank, CBS (National Institute of Statistics)

### Notes:

- Typical mortgage rate euro area refers to the AAR/NDER (Source: ECB)
- EU owner occupation rate average derived from EMF calculations based on latest available data.

Netherlands = 2009

# Poland

By Jacek Ryszewski, BRE Bank Hipoteczny S.A., and Agnieszka Nierodka, Mortgage Credit Foundation

## Macroeconomic overview

The current economic situation in Poland seems to be favourable, with 2010 seeing a 3.8% increase in real GDP (compared to a 1.6% increase in 2009). The strongest contribution to economic growth came from domestic consumption, which rose in 2010, along with the replenishment of stocks. In 2010, the increase in added value of the construction industry was 3.7% in comparison to 9.9% in 2009.

Economic growth in Poland is largely dependent on external demand, relying particularly on significant trade relations with Germany. In 2008, the unemployment rate reached a low of 8%, but was severely affected by the crisis, subsequently rising to 12.1% in 2009 and 12.3% in 2010. A slight decrease, however, is expected to be seen in 2011. Increases in unemployment have a negative influence on consumption demand as well as on the creditworthiness of potential and existing borrowers.

## Housing and mortgage markets

The real estate market during recent years has been characterised by a steady increase in prices. This results from an optimistic economic situation and favourable forecasts such as: positive economic development, decreasing unemployment, and easy access to mortgage loans (low interest rates and competition in the banking sector), as well as an increasing demand for flats driven by unsatisfied social needs and speculation.

The financial crisis in 2008 and 2009 brought the boom in construction of new housings to a halt, and demand fell significantly. Since 2010, however, economic growth has started to speed up once more. New investment on the housing market has been introduced, due to the decreasing stock of dwellings. Estimates show that the number of available flats increased from approx. 33,000 units (in 2008 and 2009) to approx. 39,000 at the end of 2010, whereas the number of dwellings completed barely reached 136,000 units.

Since joining the European Union in 2004, demand for the residential real estate market in Poland has been constantly growing, driven by increasing consumer needs as well as speculative opportunities caused by increasing prices. This speculative bubble collapsed in 2008, as decreasing prices and initial signs of bankruptcies amongst developers caused potential buyers to curtail their demand. The number of transactions on the primary market significantly decreased in 2008 and 2009. The relative stabilisation of prices observed in 2010, and limits imposed on new investment in the past two years resulted in a decrease in the number of flats available for sale on the primary market, hence creating a slight increase in the activity of residential developers in 2010. Again, the number of flats released onto the market was significantly lower in 2010 than the previous year (-15%). The number of building permits issued was lower (-2%) recorded at 165,000 units.

The demand for credit was supported by the relatively low level of interest rates and a special government programme called "Families in their own homes" (introducing government subsidies to the interest rate).

To counter the increasing credit risk, the Polish Financial Supervisory Authority issued a "Recommendation T", i.e. a guideline of best practice for the management of credit risk arising from loan exposures to households. The recommendation came into force in August 2010 and set an upper limit for monthly instalments of 50% of the borrower's income. The effects of this recommendation on the mortgage market are hard to predict, but it is unlikely to support the market.

The volume of non-performing mortgage loans increased from EUR 0.5 billion (in 2008) to EUR 0.8 billion in 2009, and reached EUR 1.1 billion as at Q3 2010, that is 1.1%, 1.5% and 1.8% of the mortgage loans portfolio. The total outstanding value of loans granted in 2010 increased significantly on 2009, by about 70%. The majority of the amount of outstanding loans was disbursed in Q4 2010.

Generally, the downturn in the housing market continued in 2010, but at a lower rate. The market recorded slight improvements in both new residential construction

activity and the limited number of dwellings available for sale on the market. Most new housing investment was concentrated in the best locations and focused on small flats tailored to customers with rather limited financial possibilities. A certain number of dwellings completed up to 3 years ago, designed as a second family "holiday" flat, or dwelling for rent, are still unsold and are unable to attract buyers' interest.

In summary, the overall picture of the Polish real estate market is unclear. On the one hand, the increase in real GDP, the stabilisation of real estate prices and their continued growth in some of the main cities, and unfulfilled social needs all contribute to fuel additional demand for housing. On the other hand, unemployment, accelerating inflation and a rise in reference interest rates, as well as unfavourable changes to the government programme "Families in their own homes" (where significant restrictions are planned as of Q3 2011), and tightening regulatory measures contribute to reducing the availability of home loans. The worst effects of the economic slowdown may be over, but the mortgage market continues to be rather weak.

	EU27, 2010	Poland, 2010	Poland, 2009
GDP growth (%)	1.8	3.8	1.6
Unemployment rate (%)	9.6	9.6	8.2
Inflation (%)	2.1	2.7	4.0
% owner occupied	68.9	n/a	68.7
Residential Mortgage Loans as % GDP	52.4	19.1	18.2
Residential Mortgage Loans per capita, EUR thousand	12.88	1.77	1.48
Total value of Residential Loans, EUR million	6,414,079	67,669	56,630
Annual % house price growth	0.7	4.2	-0.9
Typical mortgage rate (euro area), %	2.78	6.10	7.10
Outstanding Covered Bonds as % outstanding Residential Lending	24.6	0.8	1.0

Source: EMF, Eurostat, ECB, National Bank of Poland, Central Statistical Office

### Notes:

- Typical mortgage rate euro area refers to the AAR/NDER (Source: ECB)
- EU owner occupation rate average derived from EMF calculations based on latest available data.

Poland = 2009

# Portugal

By Maria Lúcia Bica, Caixa Economica Montepio Geral

## Macroeconomic overview

After a decrease in 2009 (by 2.5%), Portuguese real GDP grew by 1.3% in 2010, mainly due to the increase in exports (of 8.7%). However, this recovery did not signal the start of boosted economic activity, as the sovereign debt crisis worsened during the year, negatively impacting financial markets and general economic conditions. The unemployment rate increased from 9.6% in 2009 to 11% in 2010; the inflation rate reversed its trend, and went from -0.9% in 2009 to 1.4% in 2010, and the 6-month Euribor (which is the most commonly used reference rate for housing loans) rose from 0.99% at end-2009 to 1.23% at end-2010.

## Housing and mortgage markets

During 2010, housing supply in Portugal continued with its downturn. The number of housing completions recorded its lowest figure since the 1990s, with only 43,470 units, as did the number of building permits issued, with only 14,435 units.

Continued economic difficulties, low levels of consumer confidence, weaker housing market prospects and tighter lending criteria by banks all led to a decline in housing activity. From 2008 to 2010 the number of house purchases and contracts decreased by more than 14% on annual average as did the number of new mortgage loan contracts, decreasing by around 30%.

The house prices index for new and existing dwellings recorded a slowdown in the past two years, reflecting not only the state of the economy, which appeared to influence households' purchase decisions, but also the need to restore a balance between supply and demand on the housing market. The continued rise in the house price index for new dwellings was mostly influenced by the growing construction costs, rising costs of goods, equipments and energy consumption, and also by the increased taxation on transactions.

The latest trends for mortgage lending show a deceleration in mortgage lending annual growth rates, which is confirmed by the moderate growth rates in outstanding residential loans as well as in new residential loans after 2007 and the onset of the global financial crisis and economic downturn. Since then, there has also been an increase in the default rate, as well as an increase in the average amount of mortgage loans in default, which triggered a tightening in banks' lending criteria. Moreover, the ratio of Non-Performing Loans (NPL) to outstanding housing loans increased from 1.7% in 2009 to 1.9% in 2010, but was lower than the ratio of NPL to the amount of loans for "consumption and other purposes".

## Funding

Growth in mortgage covered bonds outstanding in Portugal has slowed down since 2007. Equally, the amount of housing loans sold through securitisation decreased by 4.8% on annual average from 2007 to 2010: the amount of outstanding Residential Mortgage-Backed Securities (RMBS) in 2010 reached EUR 10.4 billion, which is only comparable with the level recorded in 2003.

	EU27, 2010	Portugal, 2010	Portugal, 2009
<b>GDP growth (%)</b>	1.8	1.3	-2.5
<b>Unemployment rate (%)</b>	9.6	11.0	9.6
<b>Inflation (%)</b>	2.1	1.4	-0.9
<b>% owner occupied</b>	68.9	n/a	74.6
<b>Residential Mortgage Loans as % GDP</b>	52.4	66.3	65.7
<b>Residential Mortgage Loans per capita, EUR thousand</b>	12.88	10.77	10.42
<b>Total value of Residential Loans, EUR million</b>	6,414,079	114,553	110,685
<b>Annual % house price growth</b>	0.7	1.8	0.4
<b>Typical mortgage rate (euro area), %</b>	2.78	2.96	2.22
<b>Outstanding Covered Bonds as % outstanding Residential Lending</b>	24.6	24.2	18.3

Source: EMF, Eurostat, ECB, Bank of Portugal, National Statistics Institute, Confidencial Imobiliário

### Notes:

- Typical mortgage rate euro area refers to the AAR/NDER (Source: ECB)
- EU owner occupation rate average derived from EMF calculations based on latest available data.

Portugal = 2009

# Romania

By Stefan Dina, Romanian Banking Association

## Macroeconomic overview

In 2010, Romania had to meet the challenge of combining short-term fiscal consolidation with mitigating the social costs of the crisis and restoring the sources of sustainable and equitable growth. The government tried to counteract the impact of the crisis, and to provide impetus to the structural reform agenda that had faltered since EU accession on January the 1<sup>st</sup>, 2007. Fiscal adjustment measures were implemented in the second half of 2010 (a cut of 25% in wages in the public sector, VAT increase from 19% to 24%, a cut of 15% in social benefits, with the exception of pensions, introduction of the interest income tax) in order to meet the fiscal deficit targets set out in the financial support programme agreed with the IMF, the European Commission and the World Bank.

Real GDP declined by 1.3% in 2010 after a contraction of 7.1% in 2009. The unemployment rate on yearly average (measured as the EU-harmonised rate) increased slightly from 6.9% in 2009 to 7.3% in 2010.

The average annual HICP inflation rate increased to 6.1% in 2010 from 5.6% in 2009, partly due to the rise in VAT.

## Housing and mortgage markets

There is no official data available yet on the housing stock, but during 2010 there were no significant movements in the housing market which could have affected the home ownership rate, which stood at 97.7% at end-2009.

In 2010 the number of dwellings completed was 48,800 units, corresponding to 13,000 units less than the previous year. The number of residential building permits issued in 2010 was 42,189, equating with a decrease of 13.6% compared to 2009, and of 46% compared to 2008. The figure recorded in 2009 in the number of real estate transactions was exactly the same in 2010, the total number of transactions finalised in 2010 being 352,000.

As regards the evolution of house prices, according to some unofficial statistics and analysis<sup>45</sup>, at the end of 2010 house prices had reached their lowest level in absolute terms for the last three years, namely EUR 1,033 per square meter. This figure is 15.9% lower than in December 2009, when the price per square meter was EUR 1,228.

In 2010, the demand for mortgage loans remained subdued due to both difficult macroeconomic conditions and restrictive lending criteria which have been tightened since 2009. At year-end, mortgage lending outstanding amounted to RON 29,033 million (EUR 6,769 million), by 19.33% higher than in 2009 (RON 24,328 million, that is EUR 5,718 million). Governmental support, which was provided through the special scheme for First-Time Buyers (FTBs), called "Prima Casa" ("First House"), also boosted growth in outstanding mortgage lending. Out of the total number of mortgage loans granted in 2010, almost 70% were state-guaranteed through the "Prima Casa" programme.

The average interest rate on a EUR-denominated new mortgage loan at end-2010 did not significantly change compared to the same period of the previous year (5.23% in December 2010 against 5.06% in December 2009), due to the fact that banks preferred to reduce other credit costs rather than interest rates.

Interest rate developments were strongly influenced by the government's programme for FTBs, which was launched in 2009 and extended throughout 2010. Through this scheme, the government imposed a maximum margin to all organisations which joined the initiative, that was lower than the average interest rate applied by banks on "ordinary" mortgage loans.

Given the persisting uncertainties in the labour market and the high risk perception associated with the real estate market, in 2010 no significant changes were recorded in Loan-to-Value (LTV) ratios or the households' indebtedness

ratio compared to the previous year. The average LTV was 70% and the average household debt ratio (as % of disposable income) was 44.1%.

In 2010, the overdue and doubtful loans expressed as a percentage of the total credit portfolio ratio increased at a fast rate, and went from 0.32% in 2008 to 1.45% in December 2009 and then to 2.22% in December 2010 (according to the National Bank of Romania). These increases were basically caused by the decline in the purchasing power of individuals.

In 2010 mortgage lending criteria did not change significantly. The more restrictive standards which were first adopted between 2008 and 2009 were also maintained throughout 2010, even though some credit costs, other than interest rates, were lowered. The demand for mortgage loans increased slowly and banks expect mortgage market conditions to improve in Q1 2011.

An important action for the mortgage loan industry which took place in 2010 was the implementation of the European Directive 48/2008 into Romanian legislation. The main changes being the following: a) the elimination of the prepayment fee on floating interest rates; b) the provision of information to consumers about the offers, based on a standardised form imposed by law; c) the indexation of interest rates to public indexes (Euribor/Robor); d) the setting of the types of commissions allowed to be charged on a loan; the definition of the APR (Annual Percentage Rate); e) the establishment of the customers' right to withdraw from the credit agreement without giving any reason within a period of 14 days after the conclusion of the contract, etc.

## Funding

As in previous years, around 93% of the mortgage loans market was foreign currency-denominated. The interest rates applied to mortgage loans denominated in foreign currency were lower than the interest rates on RON-denominated mortgage loans. Therefore, borrowers opted for foreign currency-denominated mortgage loans so as to access larger amounts of mortgage credit. Most mortgage funding in 2010 was based on deposits and private financial institutions.

	EU27, 2010	Romania, 2010	Romania, 2009
GDP growth (%)	1.8	-1.3	-7.1
Unemployment rate (%)	9.6	7.3	6.9
Inflation (%)	2.1	6.1	5.6
% owner occupied	68.9	n/a	97.7
Residential Mortgage Loans as % GDP	52.4	5.6	4.9
Residential Mortgage Loans per capita, EUR thousand	12.88	0.32	0.27
Total value of Residential Loans, EUR million	6,414,079	6,769	5,718
Annual % house price growth	0.7	n/a	n/a
Typical mortgage rate (euro area), %	2.78	5.23	5.06
Outstanding Covered Bonds as % outstanding Residential Lending	24.6	n/a	n/a

Source: EMF, Eurostat, ECB, Bank of Romania, National Institute of Statistics

### Notes:

- Typical mortgage rate euro area refers to the AAR/NDER (Source: ECB)
- EU owner occupation rate average derived from EMF calculations based on latest available data.

Romania = 2009

<sup>45</sup> See, for example, [www.indeximobiliare.ro](http://www.indeximobiliare.ro).



# Slovakia

By Miroslava Mizerakova, Hypocentrum Slovakia a.s.

## Macroeconomic overview

The macroeconomic situation in Slovakia in 2010 reflected the easing in the global financial and economic crisis and the gradual stabilisation and revival of global economic activity.

Compared to 2009, the economic recovery in Slovakia proved relatively strong, mainly thanks to positive developments in external demand. The favourable economic developments also boosted a revival of business investment. In addition, the labour market also gradually stabilised. This was reflected in a decrease in the unemployment rate, which fell over the course of the year, resulting in a rate of 14.4% (on yearly average).

Real GDP increased by 4% year-on-year. The consumer price index in December 2010 recorded a year-on-year increase of 1.3% (0.7% on yearly average).

## Housing and mortgage markets

In 2010 the number of housing starts (or building permits issued) was 16,211 and completions of apartments totalled 17,076 units. The number of housing starts decreased by 20% compared to 2009 and by 43% compared to 2008. The number of apartments per 1,000 inhabitants reached 3.14 which represents the third lowest value since the Slovak Republic became independent (in 1993).

The real estate market gained momentum in 2010. Property prices either continued with their decrease in some regions and segments, or they stagnated. According to real estate agents, property prices stabilised in 2010 contrary to what was observed in the booming period from 2007 to 2008 when prices were rising regardless of the real value of the properties. Homebuyers remained in a "wait and see" position, which triggered a quick accumulation of a large stock of newly-built, vacant properties.

In the household sector, prices of mortgage loans continued with their moderate decrease. This favourable development was largely due to the fact that banks had the room to lower their interest rates so as to provide incentives to buyers to take out mortgage loans. This also contributed to improving the situation in the real estate market.

Outstanding mortgage lending in 2010 stabilised. The total volume of new residential loans in 2010 was EUR 1,354 million.

Generally, borrowers started to prefer longer maturities due to expectations of increases in interest rates. Furthermore, as the interest rates for longer maturities decreased slightly, some households took the opportunity to refinance for longer periods. Interest rates oscillated around 4.7% per year (fixed rates up to 1 year) and around 5.3% (fixed up to 5 years). As such, a proportion of households took advantage of low interest rates to refinance debts taken on in the past.

Banks slightly eased their lending criteria compared to 2009. The typical Loan-to-Value ratio (LTV) remained stable around 70 to 80%. Mortgage loans in default accounted for approximately 5.5% of outstanding mortgages to households. The ability of households to service their debt on a regular basis was overall satisfactory, with the ratio of loan repayment to disposable income standing at 26%.

In 2010, younger borrowers (up to age 35) continued to benefit from a 3% payment subsidy from the government. A major change in the mortgage industry was the adoption of the "Act on financial brokers and financial advisors" which came into force on January 1<sup>st</sup>, 2011. This Act finally outlines and regulates the activities of financial brokers in the Slovak market. A license issued by the National Bank of Slovakia is currently necessary in order to act as a financial broker or advisor in various sectors (loans, deposits, insurance, capital markets, pension plans).

## Funding

The households' savings ratio stopped increasing in 2010, and the loan-to-deposit ratio remained below 100%. Loans increased in value more than deposits; however, most banks still managed to finance their long-term loans with savings deposits. Mortgage bonds issued by banks contributed to diversify and stabilise mortgage funding. As at end-2010, mortgage bonds accounted for more than 91% of the total amount of securities issued by banks.

	EU27, 2010	Slovakia, 2010	Slovakia, 2009
GDP growth (%)	1.8	4.0	-4.8
Unemployment rate (%)	9.6	14.4	12.0
Inflation (%)	2.1	0.7	0.9
% owner occupied	68.9	85.5	n/a
Residential Mortgage Loans as % GDP	52.4	16.5	15.0
Residential Mortgage Loans per capita, EUR thousand	12.88	2.00	1.75
Total value of Residential Loans, EUR million	6,414,079	4,837	3,933
Annual % house price growth	0.7	-3.9	-11.1
Typical mortgage rate (euro area), %	2.78	5.04	5.50
Outstanding Covered Bonds as % outstanding Residential Lending	24.6	31.7	38.1

Source: EMF, Eurostat, ECB, Federal Reserve, National Bank of Slovakia, Slovak Statistical Office

### Notes:

- Typical mortgage rate euro area refers to the AAR/NDER (Source: ECB)
- EU owner occupation rate average derived from EMF calculations based on latest available data.

Slovakia = 2010

# Slovenia

By Dr Andreja Cirman, University of Ljubljana

## Macroeconomic overview

In 2010 Slovenia, with a real growth rate of 1.2%, recorded a slower recovery compared to the euro area (1.8%), primarily as a result of the deepening crisis in the construction sector and adverse developments in financial markets. The recovery was mainly underpinned by exports, which, despite some improvement, did not grow as fast as demand on foreign markets. Broken down by economic sector, the worst results were recorded in the construction sector, which led to another decline in gross fixed capital formation of 6.7%.

Average yearly inflation as measured by the Harmonised Consumer Price Index (HICP) stood at 2.1% in 2010, up 1.2% on 2009, and 0.5% more than the euro area average. The unemployment rate, which started to rise by the end of 2008, continued to increase in 2009 and 2010, reaching 7.8% in the last quarter of 2010 and 8.5% in the first quarter of 2011 (7.3% on yearly average).

## Housing and mortgage markets

In 2010, there were 844,000 dwellings in Slovenia. Eurostat data reveals that 81.3% of Slovenian households own the house where they live. The share of non-profit rental housing and private rented accommodation is lower and mostly concentrated in big cities.

Housing construction activity has been constantly increasing since 2000 and peaked in 2007, when almost 11,000 new dwellings were completed. After 2007, however, housing construction started to decrease and only reached 4,831 housing starts in 2010. The downturn was also evident from the number of building permits, which decreased from the peak of 9,000 units in 2007 to 4,225 units in 2010. The contraction in construction activity is also reflected in the decline in the value of construction put in place and contracts for residential buildings, which recorded a decrease of 34% in 2010. This will result in a lower supply of housing over the coming years which coupled with relatively high housing demand, might place some pressure on housing prices in the future.

Liquidity in the real estate market is improving. The number of transactions in real estate in 2010 reached the level of 2008, and rose to just under one third of the level of 2009, after which there was a pronounced decline. According to the Statistical Office of Slovenia, prices of existing housing rose slightly to finish 2010 1.5% higher compared to a year earlier, while prices of new dwellings rose by 3.9% over the same period.

Household demand for housing loans increased until mid-2010. In 2010, a total amount of EUR 1,213 million of new housing loans was granted, which was 26% higher than in 2009. Outstanding housing loans accounted for 13.7% of GDP in 2010 compared to 11.1% in 2009. Around 95% of new housing loans were variable rate loans, predominantly referenced to the Euribor<sup>46</sup>. The risk premium on housing loans declined by 0.2%; thus, there was no significant change in the variable interest rate when the reference interest rates rose. The banks took advantage of lower premiums over the Euribor to compete for borrowers in the housing loans segment. Most of these banks were those less exposed to the construction sector.

The average maturity of housing loans has continuously increased, reaching 15.5 years in February 2011. Over 50% of new loans in 2010 were loans with a maturity of more than 20 years.

Banks started tightening their mortgage lending criteria in the first half of last year and in Q4 2010. This tightening was the result of higher risks associated with general economic activity and with developments in the housing market. There is evidence that banks were able to adjust to the changing situation by tightening their collateral requirements for housing loans, and by raising premiums on higher-risk loans during the second half of the year. The average Loan-to-Value (LTV) ratio on new housing loans remained almost unchanged at 59%, but banks were somewhat stricter with regard to the Loan-to-Income (LTI) ratio compared to the previous year.

The proportion of new housing loans with an LTI ratio above 33% increased in 2010, while the proportion of loans with an LTI exceeding 50% decreased<sup>47</sup>.

The Financial Stability Review of the Bank of Slovenia reports that the ratio of debt to disposable income of Slovenian households was 44%, which is significantly lower than the overall euro area figure of 96%. However, households in Slovenia have significantly less net financial assets, and thus a significantly smaller "safety net" in the event of difficulties in repaying their debt. Overall housing affordability remained stable compared to 2009.

The deterioration in the banking system's credit portfolio continued in 2010: non-performing loans claims went up by 66% year-on-year in December 2010 in absolute terms; on the other hand the proportion of household loans which were not in arrears increased, and the proportion of loans with up to 180 days in arrears declined. The proportion of loans in arrears for more than 180 days increased, but according to the Financial Stability Review 2010 they account for a negligible proportion of total household loans<sup>48</sup>.

## Funding

The mortgage industry in Slovenia is predominantly a universal banking segment. Although legislation allows banks to issue residential mortgage-backed securities (RMBS), no securitisation of residential mortgages has taken place yet. Before the financial and economic crisis banks increased funding in the rest of the world so as to fuel their lending activity, but the situation changed afterwards. 2010 was characterised by higher debt repayments to the rest of the world, declining liabilities to the ECB and the gradual withdrawal of government deposits. The banking system's stock of borrowings from foreign market banks went down by 10% at the end of 2010. For the second consecutive year, the increase in household deposits (EUR 490 million in absolute terms) in 2010 was relatively lower compared to the pre-crisis growth rates. Banks could only partly compensate the loss of funding by issuing debt securities. Restrictions on the funding side have also resulted in lower growth in lending to the non-banking sectors.

	EU27, 2010	Slovenia, 2010	Slovenia, 2009
GDP growth (%)	1.8	1.2	-8.1
Unemployment rate (%)	9.6	7.3	5.9
Inflation (%)	2.1	2.1	0.9
% owner occupied	68.9	n/a	81.3
Residential Mortgage Loans as % GDP	52.4	13.7	11.1
Residential Mortgage Loans per capita, EUR thousand	12.88	2.36	1.94
Total value of Residential Loans, EUR million	6,414,079	4,837	3,933
Annual % house price growth	0.7	2.8	-8.2
Typical mortgage rate (euro area), %	2.78	3.21	3.36
Outstanding Covered Bonds as % outstanding Residential Lending	24.6	n/a	n/a

Source: EMF, Eurostat, ECB, Bank of Slovenia, Statistical Office of Slovenia, The Surveying and Mapping Authority of the Republic of Slovenia

### Notes:

- Typical mortgage rate euro area refers to the AAR/NDER (Source: ECB)
- EU owner occupation rate average derived from EMF calculations based on latest available data.

Slovenia = 2009

<sup>46</sup> See Bank of Slovenia, *Financial Stability Reviews*, 2010 and 2011.

<sup>47</sup> *Ibidem*.

<sup>48</sup> *Ibidem*.

# Spain

By Irene Peña Cuenca, Spanish Mortgage Association

## Macroeconomic overview

In 2010, the Spanish economy experienced a fragile recovery. In real terms, GDP declined by 0.1% on the previous year, after the strong drop of 3.7% recorded in 2009. However, in Q4 2010 GDP increased slightly for the second consecutive quarter (by 0.6% on a yearly basis) and available data for Q1 2011 suggests a continuation of this positive trend. The contribution to GDP growth from net external demand continued to be positive and increased by 0.3% reaching 1.2%; while the contribution of domestic demand was still negative (by 1.2%), mainly as a consequence of the significant drop in public expenditure due to the budgetary consolidation measures.

As regards the labour market, unfortunately there were no signs of improvement and the unemployment rate increased from 18.8% in 2009 up to 20.3% at the end of 2010 (resulting in 20.1% on yearly average).

Finally, there was an increase in the rate of inflation. In December 2010, the Consumer Price Index (CPI) increased by 3.0% year-on-year as a consequence of both the effect of the increase in commodities prices (especially oil prices) and the increase in VAT implemented by the government in July. Government deficit as a percentage of GDP decreased from 11.2% in 2009 to 9.4% in 2010, meeting the markets' requirements for the Spanish economy.

## Housing and mortgage markets

During 2010, the adjustment in real estate activity continued. The high levels of indebtedness of both the construction and developers' sectors made the funding of new projects particularly difficult. The number of new housing starts over the year decreased to 91,662 units, which represented a fall of 23% on a year-on-year basis and, in absolute values, a fall of one tenth of 2006 levels.

The number of housing completions also continued to shrink, down to 257,433 units at the end of the year, while housing transactions amounted to 491,287 units (an increase of 5.9% on 2009 levels). The mixed evolution in the number of housing completions and in the number of housing transactions in 2010 helped to clear some of the unsold housing stock in most of the autonomous regions of the country, which was a positive factor in terms of the reactivation of the real estate market. Nevertheless, the housing stock still remained at high levels.

As regards the evolution in housing transactions, it is worth noting that some peaks in demand were observed in Q2 and Q4 2010, as a result of the measures adopted by the government in order to boost the property market before the end of the year (i.e. the increase of VAT scheduled for the first of July and the end of the tax deduction for housing purchase starting from January 2011).

Housing prices continued to decline during 2010, but at a more moderate rate than in 2009. According to the Ministry of Infrastructure and Transport, at end-2010 the average house price decreased by 3.5% on a year-on-year basis and remained flat in quarterly terms. From the peak in house prices recorded in Q1 2008 to Q4 2010, the cumulated decrease in prices was of 13% (of 18% in real terms).

At end-2010, the total volume of mortgages outstanding (residential and commercial) was EUR 1,077 billion and recorded an annual decrease of 2.1%, which represented the first negative growth on record. However, the total mortgage outstanding to GDP ratio was still above 100%, and the evolution of residential lending alone was slightly more positive, resulting in a growth rate of 1.2% at end-2010 (0.6% at end-2009).

In terms of gross lending, new mortgage activity in 2010 was below 2009 levels both in number of loans and volume terms. At the end of December 2010 around 800,000 mortgage loans (residential and commercial) were issued corresponding to EUR 124.3 billion. In relative terms, these figures represented an annual decrease of 14% in the number of contracts and of 21% in volume terms. As regards doubtful loans, the increase in the volume of doubtful mortgage loans slowed down during 2010 and even decreased for some types of credit. In this

respect, the ratio of doubtful loans for residential lending to households decreased from 3% in September 2009 down to 2.4% in December 2010.

Despite the unfavourable macroeconomic environment, this positive behaviour was the consequence, on the one hand, of the low level of mortgage interest rates and, on the other hand, of the efforts that were made by financial institutions in order to limit an increase in arrears.

The future evolution of doubtful loans will be dependent, in any case, on the future evolution of mortgage interest rates and, particularly on improvements within employment and the wider economy. According to the Bank of Spain, LTV ratios in new lending continued decreasing, down to 58% in 2010 on average.

## Funding

Funding activity in 2010 was severely affected by the sovereign debt crisis in Greece and Ireland (and more recently Portugal) and by its impact on investors' confidence.

Although the austerity measures announced by the Spanish government in May 2010 notably helped reduce the concerns about the Spanish economy, uncertainty and volatility remained high throughout the year, evidenced by the spread on ten-year Spanish government bonds over the ten-year German bund increased from 62 basis points (bps) in 2009 up to 247 bps at the end of 2010.

However, the issuance of Spanish covered bonds (*cédulas hipotecarias*) remained active throughout the year and continued to be an important funding tool for financial institutions. New issuance of *cédulas hipotecarias* amounted to EUR 47 billion and the outstanding volume was EUR 341.3 billion compared to EUR 334.7 billion in 2009. In relative terms, the proportion of *cédulas hipotecarias* out of the total volume of mortgage securities continued to increase and went from 40% in 2008 to 66% in 2009 and 75% in 2010.

As regards Mortgage Backed Securities (MBS), in 2010 credit institutions continued to experience problems in the use of MBS as a funding tool. New issuance in 2010 dropped by 40% and the outstanding volume contracted by 3% compared to 2009 levels.

	EU27, 2010	Spain, 2010	Spain, 2009
GDP growth (%)	1.8	-0.1	-3.7
Unemployment rate (%)	9.6	20.1	18.0
Inflation (%)	2.1	2.0	-0.2
% owner occupied	68.9	85.0	85.0
Residential Mortgage Loans as % GDP	52.4	64.0	64.4
Residential Mortgage Loans per capita, EUR thousand	12.88	14.79	14.81
Total value of Residential Loans, EUR million	6,414,079	680,208	678,872
Annual % house price growth	0.7	-3.5	-6.3
Typical mortgage rate (euro area), %	2.78	2.54	2.52
Outstanding Covered Bonds as % outstanding Residential Lending	24.6	50.2	49.3

Source: EMF, Eurostat, ECB, Bank of Spain, Instituto Nacional de Estadística (INE)

### Notes:

- Typical mortgage rate euro area refers to the AAR/N DER (Source: ECB)
- EU owner occupation rate average derived from EMF calculations based on latest available data.

Spain = 2008

## Sweden

By Christian Nilsson, Swedish Bankers' Association

### Macroeconomic overview

The recovery of Swedish GDP in 2010 was strong, resulting in a 5.7% growth rate compared to a decrease of 5.3% in 2009. Domestic demand rose faster than GDP and played an unusually important role in the recovery. Relatively high unemployment meant that there was unused capacity in the labour market. Consequently, employment could increase without overheating the labour market. The Swedish economy was on an upward trend in 2010 where increasing demand led to growth in output and higher employment, which in turn further boosted domestic demand.

The number of people employed rose by about 50,000 in 2010, compared to a decrease of around 100,000 in 2009. Yet, despite the increase in employment in 2010, unemployment did not decrease. According to the National Institute of Economic research (NIER), the reason for this is that the labour force grew by almost as much as the number of employed. The unemployment rate on yearly average (8.4%), however, conceals the fact that the unemployment rate decreased during the course of 2010 and dropped from 9% to 8% between Q4 2009 and Q4 2010.

Inflation started to accelerate during 2010, starting from low or even negative levels in 2009. In December 2010 the inflation rate reached 2.3% (measured as the national Consumer Price Index; the EU-harmonised inflation rate was 1.9% on yearly average in 2010, same as 2009).

The Swedish Central Bank started to increase its repo rate in July 2010 from the record low of 0.25%. The Central Bank increased the repo rate four times, up to 1.25% at the end of 2010. These increases also continued in 2011, as the Central Bank raised its repo rate several times up to 2.00% in September 2011.

### Housing and mortgage markets

In 2010, there were 844,000 dwellings in Sweden. Eurostat data reveals that 81.3% of Swedish households own the house where they live. The share of non-profit rental housing and private rented accommodation is lower and mostly Housing completion continued to decrease during 2010 and only around 19,600 housing units were completed during the year. However, the improved economic conditions have positively affected construction activity, and both housing starts and building permits bottomed out in 2009 and increased in 2010. The National Board of Housing expects that residential construction figures will continue to increase in 2011; however, in Sweden they are still low in absolute terms compared to many other countries.

In 2010 the number of transactions for one-family homes has increased by 3.3%. Prices of one-family homes and apartments increased in 2010, with the former increasing by 7.4%. However, at the end of 2010 and in early 2011 rise in house prices has started to cool off. Developments in house prices are influenced by increasing interest rates, by an LTV ceiling of 85% on new mortgages imposed by the Swedish FSA and by increasing demand from banks for amortisations on mortgage loans with an LTV ratio above 75%.

The residential construction cost index increased by 2.5% in 2010 compared to a growth of 0.8% in 2009. The improving conditions of the housing market are an important factor behind the increase in construction costs.

Mortgage demand in Sweden was comparably high also during 2010 even if the growth rate in mortgage lending slowed down. The total value of outstanding loans granted by mortgage institutions and banks increased by 7.1% during 2010 (in SEK terms), compared to 9% in 2009. There are several factors behind this increase in mortgage lending. One is that the Government introduced a new tax deduction at the end of 2008 of up to 50% on housing renovation and rebuilding. Another factor is that relatively low interest rates have provided a strong stimulus to lending, despite the interest rate increase which started in 2010. Construction figures in Sweden have been low for many years and have created a "housing shortage" in many areas in Sweden, which is another factor behind continued increases in house prices and mortgage lending.

Even if the demand for mortgage loans in Sweden was comparably high in 2010, the growth rate in house prices has slowed down. As observed for house prices, the slowdown in the increase of outstanding residential mortgage lending was mainly due to the increase in interest rates over the same period. Another factor that cooled off mortgage lending activity was the LTV ceiling of 85% on new mortgage lending that was imposed by *Finansinspektionen*, the Swedish FSA, in autumn 2010. Increasing demand from banks for amortisation has also contributed to the slowdown in the annual growth rate of residential mortgage lending. At the end of 2010 the Swedish Bankers' Association published its "Principles on residential lending", in which the Association considers that residential loans with LTV exceeding 75% should be amortised.

The amount of mortgage credit institutions' doubtful loans is comparably low in Sweden, the share of which did not increase in Sweden during the financial crisis. During 2008 and the first half of 2009, this figure amounted to only 0.02% of total lending to households, according to data from *Finansinspektionen*. From the second half of 2009 the share of doubtful loans has fallen further down to 0.01% of total lending to households.

The share of net credit losses for mortgage institutions has, however, increased slightly after the financial crisis of 2008, although before the financial crisis the share of credit losses was negative or, in other words, the recoveries were larger than the gross credit losses. Net credit losses are also still very low after the financial crisis and amount to only 0.01% of the mortgage credit institutions' total lending to households.

### Funding

Covered bonds are the prevailing source of mortgage funding in the Swedish mortgage market. Despite weak global financial markets since the onset of the financial crisis, Swedish issuers still managed to issue covered bonds during 2010 and the stock of outstanding covered bonds increased by 23% (in SEK terms) to EUR 189 billion.

One reason for the increasing stock of outstanding covered bonds is the increase in the value of residential lending. Another important reason is that Swedish issuers, due to the new Basel III rules, have reduced their reliance on short-term funding – such as non-secured certificates etc – and have increasingly relied on long-term funding sources.

	EU27, 2010	Sweden, 2010	Sweden, 2009
<b>GDP growth (%)</b>	1.8	5.7	-5.3
<b>Unemployment rate (%)</b>	9.6	8.4	8.3
<b>Inflation (%)</b>	2.1	1.9	1.9
<b>% owner occupied</b>	68.9	66.6	66.3
<b>Residential Mortgage Loans as % GDP</b>	52.4	81.8	81.1
<b>Residential Mortgage Loans per capita, EUR thousand</b>	12.88	30.37	25.51
<b>Total value of Residential Loans, EUR million</b>	6,414,079	283,666	236,167
<b>Annual % house price growth</b>	0.7	7.4	2.0
<b>Typical mortgage rate (euro area), %</b>	2.78	2.78	1.44
<b>Outstanding Covered Bonds as % outstanding Residential Lending</b>	24.6	66.5	56.7

Source: EMF, Eurostat, ECB, Statistics Sweden

#### Notes:

- Typical mortgage rate euro area refers to the AAR/NDER (Source: ECB)
- EU owner occupation rate average derived from EMF calculations based on latest available data.

Sweden = 2010

# United Kingdom

By Caroline Purdey, Council of Mortgage Lenders

## Macroeconomic overview

After six quarters of negative growth, the UK economy returned tentatively to positive growth at the end of 2009 and continued for the first three quarters of 2010. In Q4 2010 real GDP contracted by 0.5%, however the disruption caused by the extreme weather at the end of the year is estimated to have had a negative contribution of approximately 0.5%, if there had been no disruption it is estimated that GDP would have been broadly flat. Overall in 2010, real GDP increased by 1.4%. Lagging behind GDP, unemployment stayed at just under 8% throughout 2010 (7.8% on yearly average). By the end of 2010 2.49 million people were unemployed in the UK, up from 2.45 at the end of 2009.

Following falling and negative inflation throughout much of 2009, inflation rebounded in 2010 and has remained above the Bank of England's Monetary Policy Committee (MPC) target annual rate of 2% (according to the CPI) for the whole of the year (3.3% according to the EU-harmonised Index of Consumer Prices). At the end of 2010 the rate of inflation was 3.7% (measured by CPI). The main items contributing to this increase were transport, particularly fuels and lubricants, and food prices. The MPC maintained the base rate of 0.5% throughout 2010.

## Housing and mortgage markets

For mortgage lending, there was a slow start to 2010 following the end of the stamp duty concession. This boosted house purchase completions at the end of 2009, countered by a fall at the start of 2010. Overall in 2010 gross lending totalled GBP 136 billion (EUR 158.5 billion), down 5% compared to 2009. Net lending totalled GBP 8.4 billion (EUR 9.8 billion), a 27% fall compared to 2009. The collapse of remortgage lending which fell by 24% in 2010 compared to 2009 was the main factor driving this fall in lending. In 2010 remortgage lending totalled GBP 40.1 billion (EUR 46.7 billion) in the UK, compared to GBP 51.7 billion (EUR 60.3 billion) in 2009 and a peak of nearly GBP 130 billion (EUR 151.5 billion) in 2007. House purchase lending fared better, in 2010 the value of house purchase lending increased by 11.3% to GBP 79.2 billion (EUR 92.2 billion), this was still significantly below the peak of GBP 154.7 billion (EUR 180.3 billion) in 2007.

At the end of 2010 there were 11.4 million mortgages outstanding, 10.1 million of which were to owner-occupiers and 1.3 million were Buy-to-Let. 69% of these were on variable rates at the end of the year, compared to 62% at the end of 2009. This shift is likely to be the result of borrowers moving to lenders' reversion rates at the end of their tie in periods and borrowers choosing variable rate products which were priced favourably relative to fixed rate mortgages. At the end of 2010 there were signs that remortgage activity was starting to increase and new borrowers were increasingly opting for a fixed rate deal. In Q4 2010 52% of loans advanced were on a fixed rate compared to 46% in Q1 and Q2.

Continuing the upwards movement in 2009, house prices increased in the first half of 2010 but the market weakened at the end of the year. As measured by the Halifax House Price Index, at the end of 2010 house prices were 0.5% lower than at the end of 2009. The Department of Communities and Local Government (DCLG) House Price Index recorded a yearly increase of 7.4% on 2009. Property transactions, another indicator of the health of the housing market, remained weak in 2010. In total 886,000 properties changed hands in the year, a 3% increase compared to 2009, but only half of the 2006 peak.

House building also remained subdued. In the UK 134,080 thousand dwellings were completed in 2010, a 12% fall compared to 2009 and a 40% fall compared to the peak in 2007. Dwellings starts increased in 2010 to 130,840 which may feed through to a small increase in completions in 2011.

In 2010 the typical Loan-to-Value (LTV) ratio for all house purchase loans fell slightly to 73% (from 74% in 2009). For First-time buyers (FTBs) the average (median) LTV increased slightly to 77%, from 75% in 2009.

Since 2008 mortgage borrowers, and especially FTBs, have typically borrowed at lower LTV ratios than previously. For FTBs the median LTV fell from a historical norm of around 90% to 75% in 2009 increasing deposit requirements significantly. With an increase in the number of products available at higher LTVs, in 2010 the median LTV increased and reached 80% by the end of the year.

Lender forbearance and government support has helped prevent the number of arrears and possession cases from rising to the levels seen in the early 1990s. In 2010 there was a fall in both the number of properties taken into possession and in the number of borrowers in arrears. A total of 36,300 homes were taken into possession in the year, down from 47,900 in 2009. At the end of the year 239,600 mortgages were in arrears by 3 months or more (2.11% of all mortgages outstanding), down from 270,900 (2.38% of outstanding mortgages) in 2009.

A key event in 2010 was the change of government in May 2010 to the new Conservative-Liberal Democrat coalition. The new government further focused attention on the state of public finances and the austerity measures required. With the change in Government also came some significant changes in housing policy. The system for planning for housing was set to be overhauled under the new localism agenda and the regional tier of government that had previously played a strategic role in the planning for housing was removed.

The new government extended the temporary changes to the Support for Mortgage Interest Scheme for another year, helping homeowners who get into difficulty to make their mortgage payments helping to prevent them from falling into arrears or have their homes taken into possession.

For the UK mortgage market, a key policy issue in 2010 was the FSA Mortgage Market Review (MMR). The FSA's aim for the MMR is to deliver a "sustainable market for all participants and is flexible for consumers". One key element of the review regarded responsible lending and the practices used by lenders to determine the affordability of loans advanced. The FSA makes a case for income to be verified prior to a mortgage offer being made - questioning the future of self-certified products and "fast track" as an underwriting process for low-risk loans. The review also seeks to define what information would be required to undertake an affordability check and to determine how lenders undertake this process. Initial analysis suggested that these proposals would have a significant impact on the lending and borrowing landscape, and on market volumes.

## Funding

By September 2009, investor confidence had recovered sufficiently to allow lenders to start issuing Residential Mortgage-Backed Securities (RMBS) and covered bonds again. The recovery continued in 2010 and the first half of 2011, with further RMBS and covered bond issues including the first deal from a non-bank lender in the autumn of 2010. Over the summer and early autumn of 2011, wider concerns about the sustainability of government deficits in some euro area countries and corresponding concerns about the stability of the euro area have weighed on investor sentiment, adversely affecting a range of financial markets. As a result, secondary market prices have retreated in UK RMBS and covered bond markets, but the flow of primary issuance has held up well against this background although it has not been entirely unaffected.

Going forward, the termination of the SLS and CGS over the period from 2011 to 2014 could leave a potential funding gap that is unlikely to be filled by the growth in retail deposits. Lenders will need to make substantial use of the RMBS and covered bond markets to fill this gap unless balance sheets shrink more quickly than anticipated, but markets do remain open despite the uncertainty over the euro.

	EU27, 2010	UK, 2010	UK, 2009
<b>GDP growth (%)</b>	1.8	1.4	-4.9
<b>Unemployment rate (%)</b>	9.6	7.8	7.6
<b>Inflation (%)</b>	2.1	3.3	2.2
<b>% owner occupied</b>	68.9	n/a	66.4
<b>Residential Mortgage Loans as % GDP</b>	52.4	85.0	87.7
<b>Residential Mortgage Loans per capita, EUR thousand</b>	12.88	23.27	22.29
<b>Total value of Residential Loans, EUR million</b>	6,414,079	1,442,695	1,372,861
<b>Annual % house price growth</b>	0.7	7.4	-7.8
<b>Typical mortgage rate (euro area), %</b>	2.78	3.75	4.28
<b>Outstanding Covered Bonds as % outstanding Residential Lending</b>	24.6	14.2	14.6

**Notes:**

- Typical mortgage rate euro area refers to the AAR/NDER (Source: ECB)
- EU owner occupation rate average derived from EMF calculations based on latest available data.

United Kingdom = 2010

Source: EMF, Eurostat, ECB, Bank of England, Department of Communities and Local Government, HM Revenue and Custom



# Non-EU country reports

## Iceland

By Magnus Arni Skulason, Reykjavik Economics EHF

### Macroeconomic overview

The Icelandic economy contracted in real terms as a result of the financial crisis that started in October 2008. Real GDP decreased by 3.5% in 2010, but the outlook for real GDP growth in 2011 is positive.

Unemployment in 2010 was not very different from 2009 (7.5% against 7.2%) but the 2010 figure was the highest for the country since 1991. The unemployment rate in Iceland has always been very low i.e. around 3%.

Inflation has historically been a difficult issue for the Icelandic economy. Due to weak domestic demand, HICP inflation reached 7.5% in 2010, which was relatively high compared to Western economies, however fluctuation in the Icelandic krona played a key role in inflationary developments. This is probably also part of the aftermath which followed the collapse of the ISK in the autumn of 2008; Iceland is heavily dependent on imported goods, e.g. oil and manufactured goods. The ISK devalued against the EUR by 50% from 2007 to 2009, i.e. from 87.6 (EUR/ISK) on average in 2007 to 172.6 on average in 2009. The exchange rate stabilised around 161.9 in 2010. Most of the inflationary effects materialised in 2008 and particularly in 2009, when the Consumer Price Index rose by over 12% on average (16.3% as measured by the HICP).

Interest rates on mortgages are real rates, i.e. adjusted for inflation. Due to the fact that most mortgages are indexed linked and back-loading in payment, the inflationary factor considerably increased the remaining principal over the past three years. This meant that many people lost their home equity due to high inflation.

The Central Bank policy rate was 10% at the beginning of 2010, but gradually decreased to 4.50% at year-end. The average policy rate was 7.75% in 2010, considerably higher than in other European countries. In addition to high interest rates, Iceland has put draconian capital controls in place, but the country has considerable debt overhang of foreign-owned ISK-denominated bonds and deposits, which is a problem inherited from the carry trade business prior to the banking collapse. This debt overhang amounted to around 30% of GDP in 2010. This means that there are two active foreign markets for the ISK: an "on-shore" market which is controlled by the Central Bank of Iceland, and an "off-shore market" where the EUR/ISK exchange rate is considerably lower.

### Housing and mortgage markets

According to a new report on housing by the Ministry of Welfare around 77% of all housing in Iceland was owner occupied in 2009. The share held by the rental market was around 17%, while the rest was some kind of social and student housing.

The liberalisation of the mortgage market in 2004 – which included higher loan-to-value, lower interest rates and removal of a loan amount limit – boosted excess housing supply, which – after the collapse of the banking sector in 2008 – resulted in a near complete stop in residential construction activity, due to a lack of demand and the credit crunch. In 2010 there were only 317 housing start units, which is under one tenth of the average number of housing starts during the booming housing cycle, i.e. from 2004-2007. Housing completion constituted only 1,137 units or just under two fifths of the number of completion during the housing boom years.

The number of housing transactions was slightly higher in 2010 than 2009, amounting to 3,972 units. The average number of transactions from 1990 to 2010 was 7,862 units per year, but during the booming years (from 2004 to 2007) it was 12,304 units per year. The housing market was rather weak in 2010: the number of transactions concluded was under a third of the number of transactions recorded during the booming years.

In nominal terms, housing prices in the Reykjavik Capital Region fell by 3.8%, but in real terms housing prices fell by 25.2%. Most of the correction in house prices already took place in 2009 when real prices dropped by 9.5% in nominal terms and by 25.8% in real terms.

Icelandic households are heavily indebted compared to the levels recorded in other countries, but according to the Central Bank of Iceland the household debt ratio peaked at 127% of GDP in 2008, due to excess housing investment and leveraged private consumption, then dropping to 113% of GDP in Q4 2010.

Interest rates on indexed mortgages reached the historical low of 4.90% in the beginning of 2010, but gradually came down to 4.50% towards the end of the year (these rates relate to the Housing Financing Fund's real interest rates with penalty in case of early repayment). When taking inflation into account the nominal mortgage rate in 2010 was above 10%, but mortgage loans are back-loading, so that the borrower never pays up the interest and the indexation in one step. Due to the restructuring of household debt the Central Bank of Iceland has not published any numbers for outstanding mortgages since year-end 2007.

The loan-to-value ratio has traditionally been around 90% over the past half decade, but after the collapse of the Icelandic banking system in 2008, the Housing Financing Fund (HFF) has held the monopoly in that market, with some competition with private mortgages from pension funds. The Loan-to-Value ratio (LTV) at the HFF has traditionally been 80%, but the highest loan value is only ISK 20 million, which should be enough for an average three-bedroom flat in the capital region.

Foreign-denominated mortgages became popular by the mid of the present decade, i.e. in JPY and CHF. Most of these mortgages were declared illegal by the Supreme Court of Iceland in 2010, which means that most of them were restructured to ISK at an interest which excluded the exchange rate fluctuations of 2008 and 2009. Households still face financial difficulties: according to the Central Bank of Iceland around 21% of loans to households are non-performing, i.e. in 90-day arrears. Financial institutions offering mortgage loans have offered households who are in negative equity the possibility to restructure their mortgage to 110% with LTV. This means many financial institutions have repossessed over 1,500 housing units from the onset of the financial crisis until year-end 2010, 1,070 units of which have been taken over by the HFF. Icelandic financial institutions therefore own around 1.2% of all housing units in Iceland in 2010. It is looking likely that financial institutions will repossess more units in 2011, particularly from bankrupted developers.

The current government of Iceland is reviewing its housing policy and has published a steering group paper on this issue in the spring of 2011. The main conclusions of the group are, among others, as follows:

- When coordinating general housing subsidies there will be no discrimination between owner-occupied housing and rental housing.
- The State will regularly analyse and publish housing market data.

### Funding

After the collapse of the Icelandic banking system, it was clear that the supply of funding would have been rather limited. In 2010, only the state-owned Housing Financing Fund along with pension funds were able to supply new mortgages. State securitisation of the HFF bonds will probably be abolished in the near future and ordinary bond issuance will be replaced with covered bond issuance.



	EU27, 2010	Iceland, 2010	Iceland, 2009
GDP growth (%)	1.8	-3.5	-6.9
Unemployment rate (%)	9.6	7.5	7.2
Inflation (%)	2.1	7.5	16.3
% owner occupied	68.9	77.0	77.0
Residential Mortgage Loans as % GDP	52.4	n/a	n/a
Residential Mortgage Loans per capita, EUR thousand	12.88	n/a	n/a
Total value of Residential Loans, EUR million	6,414,079	n/a	n/a
Annual % house price growth	0.7	-3.8	-9.5
Typical mortgage rate (euro area), %	2.78	5.00	5.05
Outstanding Covered Bonds as % outstanding Residential Lending	24.6	n/a	n/a

Source: EMF, Eurostat, ECB, Central Bank of Iceland, Reykjavik Economics, Icelandic Land Registry

**Notes:**

- Typical mortgage rate euro area refers to the AAR/NDER (Source: ECB)
- EU owner occupation rate average derived from EMF calculations based on latest available data.

Iceland = 2009



## Norway

By Odd Kristiansen and Camilla Landsverk, Norwegian State Housing Bank

### Macroeconomic overview

In 2010 the Norwegian economy was still in a slump, but appears to have bottomed out. Real GDP increased by 0.3% from 2009 to 2010. Investment is a key-component in economic activity. After two years of economic downturn, a clear upward trend was recorded for business investment in Norway in 2010. In addition, strong growth in imports from Norway's trading partners in 2010 boosted Norwegian exports. High economic growth recorded among developing economies, such as China and India, contributed to a strong increase in demand from Norway's trading partners.

As in the previous year, in 2010 Norway experienced rather moderate inflation. The national Consumer Price Index (CPI) rose by 2.5% (the EU-harmonised HICP rose by 2.3%), which is equal to the Norwegian inflation target. The increase in CPI was mainly due to growth in the price of electricity, including grid rent, which rose by more than 20%. Rises in rental prices and in the prices of fuel also provided a strong contribution to the rise in the CPI.

The average three-month money market interest rate stood at an average of 2.5% in 2010. The Central Bank's base rate was raised in May 2010, and was subsequently 0.75% higher than its record low in 2009.

There was no increase in employment last year. On average 3.6% of the labour force was registered as unemployed in 2010, against 3.2% in 2009 (3.5% and 3.1% respectively, according to the EU-harmonised unemployment rate). The increase in unemployment was mostly among people who have been unemployed for less than three months. However, the proportion of long-term unemployed remained unchanged. Unemployment is not expected to increase further in 2011.

### Housing and mortgage markets

On yearly average, house prices increased by 8.3% 2010, despite a slight fall during the second half of the year. This house price growth is due to a considerable increase in population, and to the improved economic situation with high real income growth and continuing low interest rates. As house prices rose strongly, house building activity became more profitable. Nevertheless, housing investment still recorded a decline in 2010 (of 8.7% according to OECD figures). In 2010, housing investment amounted to 15.7% of gross capital formation, i.e. a slight increase compared to the previous year. However, Norway experienced an increasing trend in housing production, even though housing activity in 2010 was still influenced by the financial crisis. The number of housing starts rose from 19,700 units in 2009 to 21,100 units in 2010. It should also be mentioned that the number of new housing starts has increased steadily throughout 2010 from a particularly low level in 2009. An increase in the number of employees in the building and construction sector also indicates an upturn in activity. The main reasons for this positive development is probably a relatively strong population growth, continued low interest rates and increasing house prices.

The decline in the number of housing starts which was recorded in previous years resulted in the decline in the number of completed houses – i.e. from scarcely 21,800 housing units in 2009 to 17,800 units in 2010 which is equal, on average, to 3.6 units per 1,000 inhabitants. The increase in residential construction costs amounted to 3.1% in 2010, against 2.4% recorded the year before. However, the residential construction cost index is still increasing at a moderate rate. In July 2009 the Norwegian Central Bank's key policy rate reached its historical low of 1.25%, but since then it has risen, to reach 2.0% at end-2010.

The volume of outstanding mortgage loans in NOK values has increased by about 7% during each of the previous two years (7.7% in 2010 and 6.9% 2009). However, growth in the popular lending scheme, entitled "Mortgage Framework Loans", was clearly higher (18.5% in 2010). With this scheme, the borrower is, to a larger extent, free to decide when the loan will be repaid. The proportion of mortgage loans out of total households' debt amounted to 80.7% in 2010, which

represented a decline compared to the previous year. The number of Norwegian households whose debt amounted to more than three times the size of their income increased from 2008 to 2009; at the same time, fewer households paid interest amounting to more than 15% of total income (this was observed for only 10% of all households in 2009). Obviously, these developments are strongly related to the level of interest rates. According to figures from Statistics Norway, the average debt for all Norwegian households amounted to around EUR 119,200 in 2009 (about 5% higher than in 2008).

According to the "Residential loan survey 2010" issued by the Financial Supervisory Authority of Norway, 34% of households took out loans where the Loan-to-Value (LTV) ratio exceeded 90%, while in 2008 this figure was 51%. This development reflects new guidelines for banks' lending that were set out in 2009 by the Supervisory Authority which – among other things – require that the LTV should not normally exceed 90%. Despite a very low interest rate, the number of mortgage defaults increased slightly in 2010. Statistics from the Norwegian Financial Services Association (FNO) reports that net non-performing assets in commercial banks amounted to 1.6% of net loans to customers in 2010 (against 1.5% in 2009). However, the amount of total losses decreased in 2010, amounting to around NOK 2.2 billion (EUR 279.2 million), i.e. 0.1% of average total assets. As regards the institutions which provide mortgage loans to residents, it should be noted that the number of savings banks is showing a continuous decline. In 2010, the FNO report, there were 114 savings banks, but in 1970 there were almost 500 saving banks. In addition to the savings banks there are around 20 commercial banks.

As for changes in housing policy, a new "Planning and Building Act" entered into force on July 1<sup>st</sup>, 2010. The new act focuses particularly on environmental concerns, paying attention also to sustainability within the home, housing quality, design and energy efficiency.

During recent years Norwegian authorities have implemented substantial changes in the Housing Association Act. One of the most important related initiatives is the prohibition of establishing new Housing Associations with low invested capital from private individuals. According to this regulation, common debt in new Housing Associations should not exceed 75% of the dwelling's total value.

### Funding

The issuance of bonds in 2010 decreased compared to the volumes recorded in 2009. The decrease in issuance could also be associated with the discontinuing of the practice of exchanging new covered bonds for government securities from the Norwegian Central Bank in 2009. Nevertheless, the total domestic bond debt increased approximately by 3% in 2010 on the previous year, and amounted to NOK 1.3 trillion (EUR 163.7 billion) at the end of 2010.

Banks finance their operations through different credit sources. Customer deposits are usually considered the safest, least expensive and most stable funding source. The proportion of deposits out of banks balance sheets in 2010 amounted to 65% in 2010, of which deposits from customers represented around 45%. Similarly, the bond debt share out of the total balance sheet amounted to around 15%, while the equity to capital ratio represented roughly 6%. The rest of the banks' funding is mainly made up of inter-bank loans.

	EU27, 2010	Norway, 2010	Norway, 2009
<b>GDP growth (%)</b>	1.8	0.3	-1.7
<b>Unemployment rate (%)</b>	9.6	3.5	3.1
<b>Inflation (%)</b>	2.1	2.3	2.3
<b>% owner occupied</b>	68.9	85.0	85.0
<b>Residential Mortgage Loans as % GDP</b>	52.4	70.3	73.1
<b>Residential Mortgage Loans per capita, EUR thousand</b>	12.88	45.16	40.70
<b>Total value of Residential Loans, EUR million</b>	6,414,079	219,382	195,342
<b>Annual % house price growth</b>	0.7	8.3	1.9
<b>Typical mortgage rate (euro area), %</b>	2.78	4.08	3.82
<b>Outstanding Covered Bonds as % outstanding Residential Lending</b>	24.6	31.8	31.1

Source: EMF, Eurostat, ECB, Central Bank of Norway, Statistics Norway,  
Financial Supervisory Authority of Norway

**Notes:**

- Typical mortgage rate euro area refers to the AAR/NDER (Source: ECB)
- EU owner occupation rate average derived from EMF calculations based on latest available data.

Norway = 2003

## Russia

By Andrey Tumanov, *Institute of Urban Economics*

### Macroeconomic overview

In 2010 the Russian economy began to recover: real GDP increased by 4% (after a recession of 7.8% in 2009), the unemployment rate dropped from 8.4% in 2009 to 7.5% in 2010, and foreign investment increased by 40%. However, the Russian economy is still dependent on the dynamics of oil prices (in 2010 the government net deficit of oil and gas revenues reached 12.7% of GDP) which increased by 40% in 2010. The banking sector also showed signs of recovery and the affordability and availability of loans improved. The weighted average of mortgage interest rates on RUR-denominated loans declined from 13.80% in January 2010 to 9.20% in December 2010, while deposits rates dropped from 10.80% to 6.80%. Real disposable income continued to increase in 2010 (by 4.2% after an increase in 2009 of 2%), but the inflation rate remained high, albeit decelerating: in 2010, the Consumer Price Index (CPI) increased on the previous year on annual average by 6.9% (in 2009 it increased by 11.7%).

### Housing and mortgage markets

At present, the housing stock in Russia consists of 59.5 million housing units, equating with a total floor space of 3.2 billion square meters, of which 81% are privately owned. There are 419 dwelling units per 1,000 people. Over the past 20 years, the average housing floor space consumption in Russia has increased by 35%, reaching the level of 22.4 square meters per capita in early 2010. The state housing policy mainly focussed on providing people with an opportunity to become owners, therefore not contributing significantly to the development of public and social rental sectors. Current legislation extends the regime of free and "conditionless" privatisation until 2013.

The key source of housing construction finance in Russia is household savings or loans, which are granted in limited volumes to households (for housing construction purposes or participation in construction projects). Hence, people either build single-family homes on their own (individual housing construction), or participate in multi-family apartment construction finance projects (as a rule, via direct investment in construction through various types of contracts with developers). Although lending to developers for the purposes of housing construction is currently developing, the share held by this type of lending out of the total housing construction lending market is not of a relevant quantity. Despite these difficulties, in 2010 714.1 thousand dwellings (which is equal to 58.1 million square meters) were completed (0.41 square meters per capita).

By mid-2010, commercial banks, assisted by the Bank of Russia and the Agency for Housing Mortgage Lending (AHML), managed to overcome the problem of scarce liquidity, although there is still a shortage of long-term funds in the banking system. Since December 2008, the main refinancing rate of the Bank of Russia has been reduced 14 times (the most recent rate cut was that of June 2010) and went down from 13% to 7.75%, before the latest increase in 2011 to 8.25%. Thus, the demand for housing and the availability of mortgage finance started to improve. As a result, the number of housing transactions increased by 37% and reached 3.1 million in 2010, 15% of which is associated with a mortgage. Housing prices have finally stabilised after a 9.5% drop.

Prices of newly-constructed dwellings have felt the impact of Government action, which has set the target of creating an affordable housing segment where prices should not exceed RUR 30,000 (EUR 750) per square meter (which is 38% lower than the average price recorded in Q4 2010). On the other hand, declining housing prices have contributed to improving housing affordability (during 2010, in Russia the housing affordability ratio dropped to its lowest point for the last 4 years, and the housing affordability index increased to 78%), thus generating an additional demand for housing, housing construction and mortgages.

In 2010 the volume of new loans increased by 2.5 times year-on-year, and reached RUR 379 billion (EUR 9.4 billion); the interest rate on RUR-denominated mortgage loans decreased by 1.2% during the year, down to 13.10% in December, and

on foreign currency-denominated mortgage loans by 1.3 percentage points, to 11.10%. The average maturity of new mortgage loans increased slightly, i.e. by 2.4 months on RUR-denominated loans and by 14.4 months on foreign-currency denominated loans, and reached 16.4 and 12.8 years respectively.

However, mortgage lending is still affected by high risks, which are associated, firstly and foremost, with the growing delinquency rate and uncertainty about house price trends. The delinquency rate (according to the Russian Standards of Accounting, RSA) continued to grow in 2010 and reached 2.8% of the volume of RUR-denominated loans and 10% of foreign currency-denominated mortgage loans. According to the International Financial Reporting Standards (IFRS), the share of delinquent loans for more than three months was 7.1% (as of October 1<sup>st</sup>, 2010). In Q4 2010, the share of RUR-denominated delinquent loans started to decline and dropped to 2.5% (according to the RSA). As a result, the overall delinquency rate was at 6.3% (according to the IFRS), as of January 1<sup>st</sup>, 2011.

Recently lenders have generally adopted a more conservative approach when assessing the borrowers' ability to repay their mortgage. They announced that a certified income is a mandatory condition for obtaining a mortgage loan, and also increased the minimum required down payment to 30%. The prevailing type of mortgage for a house purchase is a standard annuity loan.

At present the mortgage lending market is at a crossroads. The economic meltdown has taught us very useful lessons and also opened a window of new opportunities. In 2010 the mortgage market started to revive again. We are still coping with the big challenge to create a balanced housing finance system, which is able to provide affordable housing, to limit the lenders' "appetite for risk", especially when the market is growing, and to balance supply and demand in the housing market. Setting up a reasonable system of risks distribution between mortgage market actors (borrowers, lenders, insurance companies, refinancing institutions and secondary market vehicles, investors, the State) should become an important factor for the development of mortgage lending. As regards support to borrowers applying for a mortgage loan, such assistance should focus on creating proper conditions for borrowers, without increasing risks for other mortgage market participants.

Based on the AHML projections for 2011, the total volume of new mortgage loans will be around RUR 540 to 580 billion (EUR 13.5 to 14.5 million), and the total number of loans will reach 380 to 450 thousand units. The weighted average interest rate on new RUR-denominated loans will be approximately between 12% and 13%.

### Funding

The market of mortgage loans' refinancing (which recorded positive developments over a period of several years before the crisis) and the emerging market of mortgage securitisation have been virtually left without investors who were scared off by the rapid growth of uncertainty and lack of confidence. This contributed to the increase in the cost of funds raised for mortgage lending both in the domestic and in foreign financial markets.

In 2010, the volume of the secondary mortgage market dropped to RUR 64.6 billion, i.e. EUR 1.6 billion (equating to 8.9% of mortgage loans originated during the year). Refinancing operations were performed only through the direct sale of pools of mortgage loans, mainly to the AHML (for an amount of RUR 54.7 billion, i.e. EUR 1.4 billion). Therefore the financing mortgage loans was mostly implemented with banks' own resources, and primarily with their deposits.

	EU27, 2010	Russia, 2010	Russia, 2009
<b>GDP growth (%)</b>	1.8	4.0	-7.8
<b>Unemployment rate (%)</b>	9.6	7.5	8.4
<b>Inflation (%)</b>	2.1	6.9	11.7
<b>% owner occupied</b>	68.9	n/a	81.0
<b>Residential Mortgage Loans as % GDP</b>	52.4	2.7	2.9
<b>Residential Mortgage Loans per capita, EUR thousand</b>	12.88	0.21	0.18
<b>Total value of Residential Loans, EUR million</b>	6,414,079	29,952	25,471
<b>Annual % house price growth</b>	0.7	1.6	-9.5
<b>Typical mortgage rate (euro area), %</b>	2.78	13.10	14.30
<b>Outstanding Covered Bonds as % outstanding Residential Lending</b>	24.6	n/a	2.2

**Notes:**

- Typical mortgage rate euro area refers to the AAR/NDER (Source: ECB)
- EU owner occupation rate average derived from EMF calculations based on latest available data.

Russia = 2009

Source: EMF, Eurostat, ECB, Federal Bank of Russia, Federal State Statistics Service of the Russian Federation



## Turkey

By Serkan Belevi, Türkiye is Bankasi

### Macroeconomic overview

After the sharp contraction recorded in 2009 (4.5%) the Turkish economy recovered in 2010, as real GDP increased by 8.9%, which was the highest growth rate experienced in the last five years. Turkish real GDP recorded a high year-on-year growth rate in Q1 and Q2 2010, when it increased by 12% and 10.3% respectively. Growth, however, then slowed down in Q3, but in Q4 2010 it gained speed once more, and reached 9.6% on a year-on-year basis. This remarkable rebound in GDP growth in 2010 was caused by many factors such as political stability, global economic recovery and the action undertaken by the Central Bank of the Republic of Turkey (CBRT). In Q4 2010, the CBRT took steps aiming at preventing a possible bubble in the mortgage market, such as raising its policy interest rate and the reserve requirement ratios. The main purpose of these CBRT actions was to tighten credit conditions so as to curb the increase in property prices.

Although the economic situation improved, inflation remained stable due to low inflationary pressures. The inflation rate was 6.5% in 2009 and 6.4% in 2010 (6.3% and 8.6% when using the EU-harmonised Consumer Price Index). Despite strong domestic demand, consumer prices have seemed to move along a downward trend. Nevertheless, increasing energy prices could impact the economy and trigger a rise in consumer prices.

Improving labour market conditions, which has been observed since the second half of 2010, resulted in a decrease of the unemployment rate from 14% in 2009 to 11.4% in 2010 on yearly average (from 12.5% in 2009 to 10.7% in 2010 according to the EU-harmonised unemployment rate), but still remained above pre-crisis levels.

The overnight lending interest rate went down from 15% at end-2008 to 6.50% at end-2009. The CBRT then continued decreasing the lending interest rate during 2010 to 6.25%, 5.75%, 1.75% and finally to 1.50% in the last 4 months of 2010.

### Housing and mortgage markets

Outstanding mortgage residential loans increased by 35% in 2010 and reached TRY 60.9 billion (EUR 30.6 billion). The total volume of gross residential lending increased by 50% in 2009 and reached TRY 31,822 million (EUR 15.9 billion). As for mortgage debt to GDP ratio, this went up from 4.6% in 2009 to 5.5% in 2010. These figures are continuously on the rise but still low compared to advanced EU economies. The ratio of mortgage loans to gross lending was 11.2% in 2010 and 11.3% in Q1 2011.

According to data from the Turkish National Statistical Office, in 2000 (the latest year for which data is available), the home ownership ratio was 68%, while 24% of the housing stock was rented from private landlords and 2% was rented from government or social landlords. According to more recent data from Eurostat, home ownership ratio in 2002 was 81%. The Reidin house price index shows that in Turkey house prices recorded an upturn in 2010 and increased by 4.1% reaching 92.3, which is still lower than before the crisis. The rate of increase that was recorded for new houses was higher than average house prices. House prices have also shown a moderate rise in Q1 2011. Despite these increases, demand has continued to rise, driven by the low interest rates on mortgage loans. The demand for high quality properties has also increased, boosting the construction of upper-segment luxurious houses. Since there were clear indications for further rises in house price levels, the CBRT was urged to intervene. The CBRT aimed at curbing the growth in mortgage loans, and has consequently increased the reserve requirement ratios and interest rates. These actions generated increasing costs for banks, however, in Q4 2010 gross mortgage lending still amounted to TRY 10.9 million (EUR 5 million) and 452,477 new mortgage loans were issued. Due to the rise in loan costs, it is expected that the previous increases in property prices will remain flat in the second half of 2011.

Despite the curbing financial and monetary action maintained by the CBRT, domestic demand remained strong. Therefore, it is assumed that the biggest effects of these actions will materialise in the second half of 2011. This assumption is also supported by the late movements in the monthly interest rates on consumer loans which have shown an upwards trend since January 2011. Short-term deposits remained the

most important source of funding for banks during 2010. Nevertheless, the actions taken by the CBRT according to the reserve requirement ratios have begun to show some effect in Q1 2011. Long-term deposits have started to increase while deposits for one-month have declined. Although there are expectations that during the latter part of 2011 the maturity of deposits will increase, the market also expects further interventions to increase the maturity of deposits in 2011.

The average Loan-to-Value (LTV) ratio in Turkey is around 75% of the value of a house. In Q1 2011, the Banking Regulation and Supervision Agency (BRSA) posed a legal limit to the LTV ratio. According to this new regulation, the amount of a mortgage loan cannot exceed 75% of the real estate's value. Moreover, the LTV ratio for commercial loans was set at 50%.

A mortgage loan is still the safest type of credit compared to all other consumer loans. The NPL ratio for the mortgage sector is around 1.5% and continued to decrease in Q1 2010. The NPL ratio then decreased to 1.2% in Q1 2011, representing the lowest level since 2008. In Turkey, consumers are considered fully responsible in case of default; banks have the right to repossess everything which is owned by the borrower until the value of the borrower's debt has been repaid. An analysis carried out by the BRSA has shown that the consumer loans issued after the global economic crisis have a lower probability of becoming non-performing than the loans issued during the crisis. The same evidence was also reported for mortgage loans.

The BRSA has also imposed that property valuation must be drawn up by surveyors that are licensed by either the Capital Markets Board of Turkey or the BRSA. In that case, the value of the house is appraised systematically, since the standards which surveyors' reports must comply with are much clearer than previously.

### Funding

Mortgage lenders in Turkey have limited options for funding since the secondary market and the market of derivatives such as Mortgage Backed Securities (MBS) and Covered Bonds are not yet developed.

The prevailing funding source is consumer deposits, both savings and current accounts. This traditional mechanism is expected to remain the main funding source until secondary markets are developed and subject to proper legislation. Deposit funding contains several disadvantages, mainly the fact that maturities for savings are generally short-term ones, whereas mortgages are long-term credits. At the moment, however, borrowing and hedging through derivatives seem to be enough to deal with the maturity problem. As the mortgage market tends to grow, mortgage portfolios will require more sound funding options.

	EU27, 2010	Turkey, 2010	Turkey, 2009
<b>GDP growth (%)</b>	1.8	8.9	-4.5
<b>Unemployment rate (%)</b>	9.6	10.7	12.5
<b>Inflation (%)</b>	2.1	8.6	6.3
<b>% owner occupied</b>	68.9	n/a	81.0
<b>Residential Mortgage Loans as % GDP</b>	52.4	5.5	4.6
<b>Residential Mortgage Loans per capita, EUR thousand</b>	12.88	0.42	0.28
<b>Total value of Residential Loans, EUR million</b>	6,414,079	30,560	20,380
<b>Annual % house price growth</b>	0.7	4.1	-9.3
<b>Typical mortgage rate (euro area), %</b>	2.78	0.92	1.26
<b>Outstanding Covered Bonds as % outstanding Residential Lending</b>	24.6	n/a	n/a

Source: EMF, Eurostat, ECB, Central Bank of Turkey, REIDIN, National Statistical Institute, Banking Regulation and Supervision Agency of Turkey

**Notes:**

- Typical mortgage rate euro area refers to the AAR/NDER (Source: ECB)
- EU owner occupation rate average derived from EMF calculations based on latest available data.

Turkey = 2002

## Ukraine

By Pavlo Matiyash and Oleksandr Moiseienko, Ukrainian National Mortgage Association

### Macroeconomic overview

During the last nine years Ukrainian real GDP recorded high growth rates, but in 2009 real GDP decreased by nearly 15% (14.8%). In 2010, real GDP recovered by 4.2%, with this increase owing to the stabilisation of the Ukrainian economic and political sectors.

The rise in the Consumer Price Index (CPI) was of 9.4% in 2010 (15.9% in 2009). A deceleration in inflation was made possible by the stabilisation of the economic and political situation in Ukraine. The considerable decrease in households' income contributed to a general decrease in loans granted to individuals and in banks' external borrowings, with the total volume of loan deposits in 2010 increasing by 0.8% up to UAH 724.5 billion (EUR 68.5 billion). In the same period, the total volume of loans to individuals decreased by 19.3% – down to UAH 204.4 billion (EUR 19.3 billion). The average weighted interest rate on loans to individuals denominated in UAH in 2010 was 26.2%, while it was 11.8% for loans denominated in USD and 15.6% for loans in EUR. As of January 1<sup>st</sup>, 2011, the average interest rate was 19.3% on UAH mortgages, 16.0% on USD mortgages and 15.7% on mortgages denominated in EUR. The total amount of deposits increased by 26.2% in 2010, to UAH 414.2 billion, with deposits in domestic currency increasing by 38.2%, and deposits in foreign currencies increasing by 12.9%. In 2010, the average weighted interest rate was 14.0% on deposits in UAH, 7.3% on USD deposits and 5.8% on deposits in EUR.

As of December 31<sup>st</sup>, 2010, the official exchange rate of the UAH against the USD decreased by 0.4% and amounted to UAH 796.2 per USD 100. The exchange rate with the EUR decreased by 7.6% and as of December 31<sup>st</sup> amounted to UAH 1057.3 per 100 EUR.

In 2010, the unemployment rate reached 8% on yearly average (compared to 8.8% in 2009).

### Housing and mortgage markets

The secondary real estate market of Ukraine in 2010 was affected by a systemic crisis. The level of business activity was low and prices gradually decreased during the year. Despite some moments of temporary revival during the year, the real estate market in 2010 did not look in good shape.

In times of market standstill, many sellers seeking to improve living conditions simply could not lower their prices dramatically.

Despite the lack of actual data, according to various estimates over the year the average house price of one square meter for apartments dropped by around 4.5% on 2009.

According to other estimates available, as of January 1<sup>st</sup> 2011, the price of a square meter on the secondary market in Kyiv amounted to USD 2,076 (EUR 1,528) for one-room apartments, USD 2,175 (EUR 1,601) for two-room apartments, USD 2,161 (EUR 1,591) for three-room apartments and USD 2,410 (EUR 1,774) for multiple-room apartments.

The total mortgage portfolio of banks decreased throughout 2010.

As of January 1<sup>st</sup>, 2011, the total residential mortgage loans portfolio decreased to UAH 92.8 billion (EUR 8.8 billion), equating with 8.5% of GDP. In 2010, the decrease in outstanding mortgage lending on the previous year was 11.9%. The share of mortgage loans in the total loan portfolio amounted to 12.8%, and, as regards loans to households, mortgage loans accounted for more than one third of the total portfolio (45.4%).

As regards the currency breakdown, the proportion of loans issued in UAH increased from 21.7% in 2009 to 24.2% in 2010. The proportion of USD loans went down

from 78.3% in 2009 to 75.8% in 2010. The share held by EUR-denominated loans also slightly decreased, i.e. from 1.8% to 1.6%.

Popular demand for mortgage loans shows most objectively what is happening in the mortgage market, since it reflects consumer and borrowers sentiment. After October 13<sup>th</sup>, 2008, Ukrainian banks almost stopped lending, and since then mortgage demand has constantly declined. This is quite logical since, being unable to take new loans, borrowers are trying to repay those that they have. In quantitative and volume terms, the growth of mortgage assets is negative.

The market share held by the top 5 Ukrainian lenders at the end of 2010 was 60.5%, and has been almost unchanged since 2008 (59.9%). The top 10 lenders in the country currently hold 78.9% of the mortgage market. In 2009 banks had to deal with the problem of non-performing loans (NPL). Before the crisis, the level of NPLs in Ukraine was equal to 0.9% of the total mortgage portfolio. During 2009, this ratio increased by more than 5.5 times reaching 5.1%. Despite the attempts undertaken by banks to curb the increase in problematic loans, NPL ratios have continued to grow. This can be explained by the fact that more and more people became unemployed, but even those who remained in employment had to cope with a salary decrease.

In February 2009 banks started the process of restructuring NPL loans. During 2010, 24.5% of the total amount of mortgage loans was restructured. Restructuring is mainly based on the following actions:

- Change of loan currency;
- Change of credit repayment scheme;
- Extension of the maturity of the credit contract;
- Rescheduling of credit payments.

Since Q4 2008, according to the National Bank of Ukraine's Resolution No. 319 of October 11<sup>th</sup>, 2008 on "Additional Measures Regarding Bank Activities", banks practically stopped lending to almost any economic sector. But in Q4 2009 some banks started to grant mortgage loans again, and in 2010 32 banks were able to issue mortgage loans, albeit under rather tough lending conditions. In short: loans can only be denominated in UAH; terms of crediting differ from 1 to 20 years; a single commission is applied, equal to between 0.3% and 3% of the credit amount; the interest rate which is applied can range from a minimum of 8.8% to a maximum of 30%; the LTV ratio ranges from 40% to 80%; a monthly commission is applied, which varies between 0.5% and 0.6%.

### Funding

Before the onset of the global crisis the main funding sources for mortgages in Ukraine were credit lines of headquarters' structures, short-term deposits, Eurobonds and Covered bonds. In particular, in recent years (at the time when the Ukrainian mortgage market was recording positive developments) there were two pilot issues of covered bonds (issued by Ukrgasbank and Kreschatyk Bank) and securitisation of Ukrainian residential mortgage loans originated by Privatbank. Due to the crisis in the years from 2008 to 2010 these instruments existed, but were not actively used.



	EU27, 2010	Ukraine, 2010	Ukraine, 2009
GDP growth (%)	1.8	4.2	-14.8
Unemployment rate (%)	9.6	8.0	8.8
Inflation (%)	2.1	9.4	15.9
% owner occupied	68.9	n/a	n/a
Residential Mortgage Loans as % GDP	52.4	8.5	10.9
Residential Mortgage Loans per capita, EUR thousand	12.88	0.19	0.20
Total value of Residential Loans, EUR million	6,414,079	8,778	9,148
Annual % house price growth	0.7	n/a	n/a
Typical mortgage rate (euro area), %	2.78	26.20	26.00
Outstanding Covered Bonds as % outstanding Residential Lending	24.6	n/a	n/a

**Notes:**

- Typical mortgage rate euro area refers to the AAR/NDER (Source: ECB)
- EU owner occupation rate average derived from EMF calculations based on latest available data.

Ukraine = n/a

Source: EMF, Eurostat, ECB, Central Bank of Ukraine, IMF



# United States of America

By Dwight Jaffee and Sean Wilkoff, University of California, Berkeley

## Macroeconomic overview

During 2010, the United States (US) ended its deepest recession since the Great Depression. Most macroeconomic indicators indicated recovery from what had been the worst levels seen in the past decade. Annual GDP growth rate was 3%, a very slow rate for the first year of a recovery. Other macroeconomic measures also indicated at best a slow recovery. The unemployment rate actually increased from 9.3% to 9.6% during 2010, postponing an actual improvement until 2011. Interest rates remained at historically very low levels. Inflation concerns remained modest, although the inflation rate rose modestly in 2010. Government budget deficits, at both the federal and local government levels, expanded as a result of the slow pace of the recovery. While 2010 had been a good year for the US stock market, worries over a double-dip recession and the European sovereign debt crisis were highly visible by year-end 2010.

## Housing and mortgage markets

The housing and mortgage markets remained very weak throughout 2010. Home ownership rates continued to decline in 2010 from 67.4% to 66.9%, in part as the result of continuing foreclosures on subprime mortgages. Housing starts and permits showed a very modest increase, with housing starts rising from 554,000 to 586,900 units in 2010. Housing completions declined in 2010, due in part to the reduced housing starts the previous year decreasing from 794,400 to 651,700 units. New home sales reached a new low for the past three decades of 321,000 sales and existing home sales hit a low level not seen in over a decade, i.e. 4,908,000 sales. Existing home prices increased, recovering to the 2004 price level.

Throughout 2010 and continuing into 2011, mortgage loans in the process of foreclosure and foreclosed properties in the process of resale created a major impediment to any forthcoming improvement in the US mortgage and housing markets. Government programmes to modify mortgages, and therefore to avoid delinquency and foreclosure, remained active, but failed to achieve their primary goals. The failure of the government programmes reflected inadequacy of the programmes themselves, and adverse economic incentives and technical problems within the banks. The outlook for 2011 is also not encouraging in this regard.

The Dodd-Frank Financial Reform Act, passed in 2010, requires fundamental long-term changes in the US housing and mortgage markets (along with its general regulatory reforms for banking and the financial markets). Perhaps most importantly, US mortgage lenders are now prohibited from creating mortgages with the predatory features that led to the worst abuses during the subprime lending boom. Another positive feature is that the Act requires bank and mortgage regulators to evaluate changes that would facilitate greater use of covered bonds as part of the US mortgage system. A more questionable change is the requirement for lenders to retain 5% of the risk embedded in any new issues of mortgage-backed securities (MBS), the so-called "skin in the game" rule. This requirement presumes that the MBS channel created a moral hazard in which high-risk mortgages were sold to unsuspecting investors. However, subprime MBS were actually sold only to highly sophisticated investors, including a large share sold to the very same banks that were originating the loans and issuing the securities. Furthermore, the 5% risk retention requirement appears to contradict Basel III and the Dodd-Frank Act components directed to limiting bank risk-taking.

In February 2011, the Obama Administration issued its White Paper report to Congress, titled "Reforming America's Housing Finance Market". This contained the Administration's long awaited proposal for redesigning the role of Fannie Mae and Freddie Mac within the US mortgage market. The overall White Paper proposal can be summarised in five points:

1) The most fundamental action is to wind down the Government-Sponsored Enterprises (GSEs), reflecting the wide-spread agreement that the public-private

hybrid format for Fannie Mae and Freddie Mac has failed. The GSEs will be gradually closed by (i) reducing the conforming loan limits and (ii) raising their guarantees fees. The first reduction in the loan limit is due on October 1<sup>st</sup>, 2011;

- 2) A second component is to maintain the Federal Housing Administration (FHA) only in its traditional role as the lender for affordable mortgages for underserved borrowers. This eliminates the FHA's current role in a wide range of emergency government mortgage lending and modification programmes;
- 3) A third component is to limit the future role of the Federal Home Loan Banks (FHLBs) to provide support only for small and medium-sized financial institutions and to restrict the overall size of their portfolios. Without such constraints, the FHLB system has become an untargeted and large-scale provider of subsidised funds to large mortgage lenders;
- 4) A fourth component is to endorse the Dodd-Frank Act's consumer protection provisions (as summarised above);
- 5) The fifth component develops three nested options for the long-term restructuring of the US mortgage market without the GSEs:

- **Option 1** provides a privatised system of housing finance with government insurance limited to the existing FHA and related programmes for targeted borrowers.
- **Option 2** expands on option (1) to provide an additional government insurance mechanism that can be scaled up during times of financial crisis.
- **Option 3** expands on option (2) by providing continuing government, catastrophic, reinsurance in support of even moderate-income borrowers.

This fifth component is by far the most contentious since it raises the major policy question of how much government support is required for the US mortgage market to operate successfully. The evidence of most Western European countries suggests that mortgage markets can operate very successfully with little government intervention. However, a wide range of participants in the US mortgage markets argue that the US markets require continuing government support in the form of government insured mortgages.

## Funding

Mortgage lending volumes declined during 2010 even though mortgage interest rates were at historically low levels. Gross mortgage lending volumes remained only slightly above 2008 levels, while net residential lending continued the negative trend of the past 3 years. Loan-to-value ratios (LTV) for both new and previously-occupied homes decreased by 5%. The decrease in LTV ratios represents the continued tightening of lending standards. During 2010, delinquency rates (60 days or more) decreased from 9.47% to 8.22% and the foreclosure rate rose from 4.58% to 4.63%. The volume of commercial property lending also continued to decline, extending the negative trend to three years.

Over 86% of the residential mortgage lending that did occur in 2010 was backed by three federal government programmes. The Federal Housing Administration (FHA) and Veterans Administration programs were responsible for 23% of all residential lending and the government-sponsored enterprises (GSEs, Fannie Mae and Freddie Mac operating under a government conservatorship) were responsible for 63%. Almost all of the 2010 mortgage securitisation activity was also associated with these government programmes. Private market originators could not expand beyond their small 14% market share because they were crowded out by the subsidised government programmes.

	EU27, 2010	USA, 2010	USA, 2009
<b>GDP growth (%)</b>	1.8	3.0	-3.5
<b>Unemployment rate (%)</b>	9.6	9.6	9.3
<b>Inflation (%)</b>	2.1	2.4	-0.8
<b>% owner occupied</b>	68.9	66.9	67.4
<b>Residential Mortgage Loans as % GDP</b>	52.4	76.5	82.4
<b>Residential Mortgage Loans per capita, EUR thousand</b>	12.88	27.04	25.83
<b>Total value of Residential Loans, EUR million</b>	6,414,079	8,383,789	8,011,291
<b>Annual % house price growth</b>	0.7	0.3	-12.9
<b>Typical mortgage rate (euro area), %</b>	2.78	4.69	5.04
<b>Outstanding Covered Bonds as % outstanding Residential Lending</b>	24.6	0.1	0.1

Source: EMF, Eurostat, ECB, Federal Reserve, Federal Housing Finance Agency, Bureau of Economic Analysis, US Bureau of Census

**Notes:**

- Typical mortgage rate euro area refers to the AAR/NDER (Source: ECB)
- EU owner occupation rate average derived from EMF calculations based on latest available data.

USA = 2010



## 1. Residential Mortgage Debt to GDP ratio, %

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Austria	n/a	n/a	n/a	16.4	17.7	20.5	21.9	23.4	24.0	25.5	26.7	28.0
Belgium	27.6	27.7	26.7	27.8	29.5	30.7	33.4	35.9	37.7	39.7	44.7	46.3
Bulgaria	0.4	0.4	0.5	0.7	1.1	2.5	4.3	6.6	9.3	11.2	12.3	12.4
Cyprus	5.4	5.8	6.3	7.8	9.9	11.7	30.3	37.1	43.8	49.7	61.9	68.9
Czech Republic	n/a	n/a	n/a	1.9	3.0	4.3	6.1	7.2	10.2	10.8	12.4	12.8
Denmark	68.6	67.7	71.1	74.0	78.4	79.7	84.9	89.1	92.9	95.3	104.0	101.4
Estonia	4.0	4.6	5.6	7.6	10.9	15.5	23.4	31.9	34.6	38.2	44.2	41.7
Finland	n/a	n/a	n/a	20.4	24.6	27.1	30.6	33.1	34.3	36.2	41.2	42.3
France	20.8	21.2	21.7	22.7	24.3	26.1	29.3	32.1	34.6	36.7	39.0	41.2
Germany	55.6	53.2	53.1	53.2	53.8	52.7	52.3	51.2	47.6	46.3	48.3	46.5
Greece	6.7	8.2	10.7	13.6	15.5	18.4	23.3	27.0	30.5	32.8	34.3	35.0
Hungary	1.1	1.4	2.2	4.6	7.8	9.4	12.0	14.7	17.3	21.3	24.1	25.2
Ireland	29.0	31.0	32.7	36.2	42.3	51.6	60.8	69.5	74.0	82.7	92.1	87.1
Italy	7.3	8.3	8.7	10.0	11.4	13.3	15.2	16.7	17.5	17.3	19.2	22.7
Latvia	0.7	1.6	2.4	3.9	7.3	11.8	19.2	29.3	31.6	31.2	36.8	36.2
Lithuania	1.3	1.2	1.4	2.2	4.1	6.9	10.9	12.5	17.0	18.8	22.8	21.8
Luxembourg	22.4	25.0	27.3	27.7	30.3	32.0	35.0	35.4	39.1	40.2	44.9	44.7
Malta	8.0	8.0	17.9	19.6	22.7	27.6	31.6	35.0	37.0	38.2	42.4	43.5
Netherlands	60.7	68.2	73.0	80.2	83.9	88.2	93.5	96.7	97.8	99.2	105.4	107.1
Poland	1.7	2.1	2.7	3.4	4.5	4.7	6.0	8.4	11.6	15.6	18.2	19.1
Portugal	36.9	41.5	42.8	46.3	46.4	47.8	51.7	57.3	59.7	61.2	65.7	66.3
Romania	n/a	n/a	n/a	n/a	n/a	0.5	1.0	2.2	3.2	3.7	4.9	5.6
Slovakia	n/a	n/a	n/a	3.9	4.8	6.5	8.0	9.5	12.3	13.2	15.0	16.5
Slovenia	0.2	0.3	0.4	0.8	1.0	2.9	4.8	6.3	7.7	9.1	11.1	13.7
Spain	26.7	29.9	32.5	35.9	40.0	45.7	52.3	58.1	61.4	62.0	64.4	64.0
Sweden	45.8	44.6	45.7	46.5	48.0	56.2	58.6	63.8	65.5	65.7	81.1	81.8
UK	55.1	55.8	58.0	62.1	67.4	71.2	77.5	82.2	85.0	80.4	87.7	85.0
EU27	35.3	35.7	36.8	38.9	41.0	43.2	46.2	48.6	49.5	48.6	52.0	52.4
Iceland	53.5	56.6	59.3	60.8	66.0	70.7	80.5	73.8	118.6	n/a	n/a	n/a
Norway	41.6	39.1	42.1	47.6	52.0	53.3	56.5	56.2	62.4	56.2	73.1	70.3
Russia	n/a	n/a	n/a	n/a	n/a	0.1	0.3	1.0	2.0	2.8	2.9	2.7
Turkey	n/a	n/a	n/a	n/a	0.2	0.4	2.1	2.9	3.9	3.8	4.6	5.5
Ukraine	n/a	n/a	n/a	n/a	n/a	n/a	2.6	4.8	7.4	8.3	10.9	8.5
USA	63.8	70.0	63.5	59.0	56.4	67.2	88.9	83.3	77.0	86.5	82.4	76.5

Source: European Mortgage Federation National Experts, European Central Bank, National Central Banks, Eurostat, Bureau of Economic Analysis, Federal Reserve, International Monetary Fund

### Notes:

n/a : figure not available

- Belgian series has been revised
- Cypriot series has been revised
- Finnish series has been revised
- Swedish series has been revised; please note that data after 2004 is not comparable with the earlier data due to a change in the statistical source
- UK series has been revised

## 2. Residential Mortgage Debt per Capita, thousand EUR

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Austria	n/a	n/a	3.69	4.46	4.91	5.90	6.56	7.36	7.96	8.66	8.79	9.55
Belgium	6.44	6.84	6.75	7.22	7.85	8.60	9.68	10.86	11.94	12.85	14.11	15.07
Bulgaria	0.00	0.01	0.01	0.01	0.02	0.05	0.10	0.17	0.27	0.37	0.40	0.59
Cyprus	0.72	0.85	0.98	1.23	1.62	2.04	5.53	7.11	8.98	10.88	13.17	14.98
Czech Republic	n/a	n/a	n/a	0.15	0.24	0.37	0.60	0.79	1.26	1.54	1.62	1.77
Denmark	21.06	22.04	23.81	25.46	27.47	29.08	32.53	35.92	38.81	40.62	41.96	42.88
Estonia	0.16	0.21	0.28	0.44	0.70	1.11	1.94	3.18	4.15	4.64	4.56	4.46
Finland	n/a	n/a	n/a	5.63	6.86	7.90	9.19	10.45	11.70	12.66	13.41	14.25
France	4.74	5.04	5.32	5.71	6.23	6.94	8.02	9.14	10.24	11.09	11.46	12.31
Germany	13.64	13.36	13.65	13.83	14.01	14.02	14.09	14.36	14.04	13.93	13.99	14.09
Greece	0.82	1.03	1.43	1.94	2.43	3.08	4.10	5.14	6.21	6.93	7.15	7.12
Hungary	0.05	0.07	0.13	0.32	0.57	0.77	1.05	1.31	1.73	2.25	2.24	2.48
Ireland	7.02	8.62	10.00	12.11	15.04	19.26	24.18	29.46	32.59	33.81	33.25	30.40
Italy	1.45	1.74	1.92	2.28	2.65	3.19	3.72	4.23	4.59	4.55	4.85	5.83
Latvia	0.02	0.06	0.09	0.17	0.31	0.57	1.08	2.04	2.91	3.14	3.01	2.89
Lithuania	0.04	0.04	0.05	0.10	0.19	0.37	0.66	0.88	1.43	1.80	1.80	1.80
Luxembourg	10.43	12.67	14.03	14.97	17.47	19.34	22.95	25.62	30.82	32.95	34.60	37.03
Malta	0.77	0.89	1.96	2.22	2.59	3.14	3.78	4.38	4.96	5.43	5.98	6.50
Netherlands	14.87	17.98	20.46	23.17	24.71	26.66	29.45	32.00	34.17	35.94	36.53	38.01
Poland	0.07	0.10	0.15	0.18	0.23	0.25	0.38	0.60	0.94	1.48	1.48	1.77
Portugal	4.16	4.98	5.59	6.28	6.38	6.79	7.55	8.69	9.54	9.91	10.42	10.77
Romania	n/a	n/a	n/a	n/a	n/a	0.01	0.04	0.10	0.18	0.24	0.27	0.32
Slovakia	n/a	n/a	n/a	0.19	0.26	0.41	0.57	0.78	1.26	1.58	1.75	2.00
Slovenia	0.03	0.03	0.05	0.10	0.13	0.40	0.68	0.98	1.33	1.69	1.94	2.36
Spain	3.88	4.70	5.46	6.39	7.51	9.08	11.05	13.07	14.54	14.89	14.81	14.79
Sweden	12.47	13.41	13.05	13.94	14.96	18.26	19.42	22.45	24.30	23.86	25.51	30.37
UK	13.27	15.21	16.14	17.92	18.68	21.15	23.69	26.53	28.72	23.86	22.29	23.27
EU27	5.28	5.90	6.30	6.40	7.08	7.73	8.98	10.28	11.47	11.91	12.27	12.88

Iceland	15.90	19.11	18.47	20.10	22.23	25.99	35.95	32.77	57.56	n/a	n/a	n/a
Norway	13.98	15.95	17.85	21.47	22.73	24.24	29.82	32.50	37.78	36.24	40.70	45.16
Russia	n/a	n/a	n/a	n/a	n/a	n/a	0.01	0.06	0.13	0.22	0.18	0.21
Turkey	n/a	n/a	n/a	0.00	0.01	0.02	0.11	0.17	0.27	0.27	0.28	0.42
Ukraine	n/a	n/a	n/a	n/a	n/a	n/a	0.04	0.09	0.17	0.22	0.20	0.19
USA	17.90	21.74	23.97	23.29	21.62	22.34	28.34	27.97	26.92	28.79	25.83	27.04

Source: European Mortgage Federation National Experts, Eurostat, European Central Bank, National Central Banks, National Statistics Offices, Federal Reserve, US Bureau of Census

### Notes:

- Swedish series has been revised; please note that data after 2004 is not comparable with the earlier data due to a change in the statistical source
- UK series has been revised

### 3. Covered Bonds as % GDP

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Austria	n/a	n/a	n/a	n/a	1.8	1.7	1.6	1.5	1.5	1.8	1.9	3.4
Belgium	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Bulgaria	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Cyprus	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Czech Republic	n/a	n/a	n/a	n/a	2.0	2.2	4.4	4.9	6.5	5.5	6.0	5.7
Denmark	95.0	89.5	90.0	115.2	108.6	109.7	118.8	119.0	107.5	109.3	143.6	141.8
Estonia	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Finland	n/a	n/a	n/a	n/a	n/a!	0.2	1.0	1.8	2.5	3.1	4.5	5.6
France	n/a	n/a	n/a	n/a	2.4	2.9	3.3	4.1	5.5	8.2	9.3	10.4
Germany	n/a	12.0	12.1	12.2	11.8	11.2	10.6	9.6	8.5	8.8	9.4	8.8
Greece	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	2.1	2.8	8.6
Hungary	n/a	n/a	n/a	n/a	4.8	6.0	5.7	6.6	5.9	6.7	8.0	6.3
Ireland	n/a	n/a	n/a	n/a	n/a	1.3	2.6	6.7	7.2	12.8	18.6	18.9
Italy	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.4	0.9	1.7
Latvia	n/a	n/a	n/a	n/a	0.4	0.5	0.5	0.4	0.4	0.4	0.5	0.3
Lithuania	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Luxembourg	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.4	0.4	0.4	n/a	n/a
Malta	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Netherlands	n/a	n/a	n/a	n/a	n/a	n/a	0.4	1.4	2.8	3.5	5.0	6.9
Poland	n/a	n/a	n/a	n/a	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.1
Portugal	n/a	n/a	n/a	n/a	n/a	n/a	n/a	1.2	4.6	8.9	12.0	16.1
Romania	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Slovakia	n/a	n/a	n/a	n/a	1.7	3.1	4.1	5.0	5.0	5.5	5.7	5.2
Slovenia	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Spain	0.9	1.2	2.2	4.1	7.3	11.3	16.5	21.8	25.3	29.0	32.0	32.3
Sweden	n/a	n/a	n/a	n/a	n/a	n/a	n/a	17.4	27.3	35.3	46.0	54.5
UK	n/a	n/a	n/a	n/a	0.3	0.8	1.5	2.6	4.0	11.3	12.8	12.1
Iceland	n/a	n/a	n/a	n/a	n/a	n/a	n/a	3.5	5.3	2.9	n/a	n/a
Norway	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	2.2	7.1	18.6	22.3
Russia	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Turkey	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Ukraine	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
USA	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.1	0.1	0.1	0.1

Source: European Covered Bond Council, Eurostat

#### Notes:

- n/a : figure not available
- Austrian figures are estimates
- Covered bonds are debt instruments secured by a cover pool of mortgage loans (property as collateral) or public-sector debt to which investors have a preferential claim in the event of default.  
The covered bonds included in this table are only the first ones

## 4. Owner Occupation rate, %

	Latest data available	Owner occupation rate
Austria	2009	57.5
Belgium	2007	78.0
Bulgaria	2009	86.8
Cyprus	2009	73.8
Czech Republic	2009	76.6
Denmark	2010	53.6
Estonia	2009	87.1
Finland	2009	59.0
France	2008	57.8
Germany	2002	43.2
Greece	2010	80.1
Hungary	2010	93.0
Ireland	2010	74.5
Italy	2008	80.0
Latvia	2009	87.0
Lithuania	2009	91.0
Luxembourg	2009	70.4
Malta	2009	79.2
Netherlands	2009	55.5
Poland	2009	68.7
Portugal	2009	74.6
Romania	2009	97.7
Slovakia	2010	85.5
Slovenia	2009	81.3
Spain	2008	85.0
Sweden	2010	66.0
UK	2009	66.4
EU27	/	68.9
Iceland	2009	77.0
Norway	2003	85.0
Russia	2009	81.0
Turkey	2002	81.0
Ukraine	n/a	n/a
USA	2010	66.9

Source: European Mortgage Federation, National Statistics Offices, Eurostat, World Bank, United Nations Economic Commission for Europe, International Union for Housing Finance, Organisation for Economic Co-operation and Development

### Notes:

- n/a: figures not available
- The EU27 average has been weighted with the national total dwelling stocks



## 5. Total dwelling stock, thousand units

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Austria	3,691	3,727	3,755	n/a	3,822	3,846	3,872	3,910	3,947	3,983	4,016	n/a
Belgium	4,625	4,659	4,711	4,744	4,782	4,820	4,858	4,903	4,950	4,996	5,043	5,087
Bulgaria	n/a	n/a	3,352	3,697	3,697	3,705	3,716	3,729	n/a	3,767	n/a	n/a
Cyprus	282	288	293	299	305	314	325	341	358	374	n/a	n/a
Czech Republic	n/a	n/a	4,366	4,394	4,421	4,453	4,486	4,516	4,558	4,596	4,635	4,671
Denmark	2,513	2,526	2,541	2,554	2,572	2,592	2,621	2,645	2,670	2,696	2,722	2,737
Estonia	620	621	622	623	624	626	629	633	638	645	651	654
Finland	2,478	2,512	2,544	2,574	2,603	2,635	2,760	2,700	2,732	2,768	2,785	2,800
France	28,816	29,133	29,451	29,768	30,096	30,425	n/a	32,026	32,515	32,842	n/a	n/a
Germany	37,984	38,384	38,682	38,925	39,141	39,362	39,551	39,753	39,918	40,058	40,184	40,319
Greece	5,414	5,476	5,581	5,705	5,829	5,947	6,136	6,257	6,357	6,434	6,493	6,545
Hungary	n/a	n/a	3,724	n/a	n/a	4,134	4,173	4,209	4,238	4,270	4,303	4,331
Ireland	1,366	1,406	1,448	1,506	1,575	1,652	1,733	1,841	1,919	1,971	1,997	2,012
Italy	26,498	27,422	27,864	28,329	28,813	29,289	29,771	30,360	31,211	32,574	n/a	33,074
Latvia	n/a	796	877	958	967	987	998	1,018	1,036	1,042	1,035	n/a
Lithuania	1,324	1,309	1,292	1,295	1,293	1,300	1,300	1,307	1,316	1,328	1,337	1,341
Luxembourg	117	118	120	121	122	124	125	n/a	n/a	175	n/a	n/a
Malta	n/a	n/a	n/a	n/a	n/a	n/a	n/a	125	133	135	n/a	n/a
Netherlands	6,522	6,590	6,651	6,710	6,764	6,810	6,859	6,912	6,967	7,029	7,104	7,172
Poland	11,787	11,845	11,946	11,763	12,596	12,758	12,872	12,987	12,994	13,150	13,302	13,422
Portugal	4,894	5,007	5,107	5,232	5,324	5,398	5,473	5,538	5,602	5,663	5,722	n/a
Romania	7,885	7,908	8,107	8,129	8,152	8,177	8,202	8,231	8,271	8,399	8,385	n/a
Slovakia	n/a	n/a	1,885	1,899	1,913	1,926	1,940	1,955	1,970	1,987	2,006	2,023
Slovenia	706	712	719	785	791	798	805	812	820	830	838	844
Spain	19,837	20,376	21,033	21,551	22,059	22,623	23,210	23,859	24,496	25,129	25,557	25,837
Sweden	4,282	4,294	4,308	4,329	4,351	4,380	4,404	4,436	4,470	4,503	4,527	
UK	4,508	25,281	25,462	25,619	25,799	25,987	26,198	26,418	26,652	n/a	n/a	n/a
Iceland	103	105	107	109	111	114	117	121	126	129	130	n/a
Norway	1,923	1,942	1,962	1,982	2,003	2,026	2,054	2,082	2,112	2,140	2,161	2,179
Russia	54,900	55,100	55,600	56,000	56,400	56,900	57,400	58,000	58,600	59,000	59,500	n/a
Turkey	n/a	15,070	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Ukraine	n/a	18,921	18,960	19,023	19,049	19,075	19,132	19,107	19,183	19,255	19,288	19,322
USA	119,044	119,628	121,480	119,297	120,834	122,187	123,925	126,012	127,958	130,113	130,159	130,599

Source: European Mortgage Federation National Experts, European Central Bank, National Central Banks, National Statistics Offices, Eurostat, Euroconstruct, US Bureau of Census

### Notes:

- n/a : figure not available
- Austrian series has been revised; new series from 2003
- Greek series has been revised

## 6. Housing Starts

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Austria	46,000	39,000	37,000	36,450	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Belgium	41,670	41,087	42,047	39,374	41,134	46,193	54,569	57,895	54,600	50,395	42,772	42,937
Bulgaria	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Cyprus	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Czech Republic	32,900	32,377	28,983	33,606	36,496	39,037	40,381	43,747	43,796	43,531	37,319	28,135
Denmark	17,427	16,304	20,877	22,850	27,003	28,677	34,014	36,235	26,306	17,035	8,990	10,991
Estonia	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Finland	34,590	32,309	27,625	28,154	31,377	32,380	34,275	33,997	30,800	23,500	23,100	33,300
France	317,000	309,500	303,000	302,900	322,600	363,400	410,200	420,900	435,400	368,600	298,800	309,744
Germany	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Greece	88,474	89,389	108,021	128,296	127,051	122,148	195,207	125,387	103,865	79,601	61,490	54,788
Hungary	n/a	n/a	n/a	n/a	n/a	42,437	35,545	29,208	27,396	22,314	8,985	n/a
Ireland	n/a	n/a	n/a	n/a	n/a	77,691	77,709	75,602	48,876	22,852	8,604	6,410
Italy	162,939	184,424	189,025	209,228	229,526	268,385	278,602	261,455	250,271	n/a	n/a	n/a
Latvia	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Lithuania	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Luxembourg	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Malta	n/a	n/a	n/a	n/a	6,128	6,707	9,081	10,409	11,343	n/a	n/a	n/a
Netherlands	83,400	80,100	74,700	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Poland	90,000	125,000	114,000	77,000	82,000	97,000	102,038	137,962	185,117	174,686	142,901	158,064
Portugal	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Romania	n/a	n/a	n/a	32,950	31,702	37,798	49,795	66,817	87,643	143,139	n/a	n/a
Slovakia	11,168	9,884	12,128	14,607	14,065	16,586	19,796	20,592	18,116	28,321	20,325	16,211
Slovenia	7,000	5,000	6,000	5,000	7,000	6,000	8,000	9,000	11,000	7,000	n/a	4,831
Spain	515,493	535,668	499,605	524,182	636,332	687,051	729,652	865,561	651,427	264,795	111,140	91,662
Sweden	14,600	16,900	19,500	19,100	22,100	27,400	32,000	45,600	28,000	21,600	17,250	25,800
UK	191,120	186,190	192,070	194,370	208,570	227,990	223,900	223,970	228,650	134,500	106,820	130,840
Iceland	1,266	1,643	1,811	2,360	2,688	2,751	4,393	3,746	4,446	3,212	208	317
Norway	20,492	22,536	24,191	22,216	22,263	29,399	30,800	32,730	31,223	24,921	18,281	20,148
Russia	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	765,600	n/a	n/a
Turkey	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Ukraine	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
USA	1,640,900	1,568,700	1,602,700	1,704,900	1,847,700	1,955,800	2,068,300	1,800,900	1,355,000	905,500	554,000	586,900

Source: European Mortgage Federation National Experts, European Central Bank, National Central Banks, National Statistics Offices, Eurostat, US Bureau of Census

### Notes:

- n/a: figures not available
- Danish series has been revised
- Finnish series has been revised
- Greek series has been revised
- Italian series has been revised
- Spanish series has been revised
- UK series has been revised

## 7. Housing Completions

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Austria	59,447	53,760	45,850	41,914	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Belgium	n/a	40,253	38,255	36,386	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Bulgaria	n/a	n/a	n/a	n/a	n/a	8,267	12,059	13,270	18,864	20,924	22,058	15,771
Cyprus	6,327	5,083	6,641	6,059	8,734	11,013	16,416	16,647	16,501	18,195	16,644	n/a
Czech Republic	23,734	25,207	24,759	27,291	27,127	32,268	32,863	30,190	41,649	38,380	38,473	36,442
Denmark	17,230	16,335	17,431	18,814	23,784	26,336	27,373	29,008	31,383	26,995	18,596	11,149
Estonia	785	720	619	1,135	2,435	3,105	3,928	5,068	7,073	5,300	3,026	2,324
Finland	28,939	32,740	30,592	27,171	28,101	30,662	34,177	33,885	35,500	30,500	22,200	24,500
France	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Germany	472,805	423,062	326,197	289,601	268,096	278,008	242,316	249,436	210,739	175,927	158,987	159,832
Greece	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Hungary	19,287	21,583	28,054	31,511	35,543	43,913	41,084	33,864	36,159	36,075	31,994	20,823
Ireland	46,512	49,812	52,602	57,695	68,819	76,954	80,957	93,419	78,027	51,724	26,420	14,620
Italy	n/a	160,000	195,000	210,000	214,000	238,000	296,000	317,000	309,000	281,000	246,000	204,000
Latvia	1,063	899	800	794	828	2,821	3,807	5,862	9,319	8,084	4,187	1,918
Lithuania	4,364	4,463	3,785	4,562	4,628	6,804	5,900	7,286	9,315	11,829	9,400	3,667
Luxembourg	3,067	1,671	2,342	2,475	2,199	2,155	1,979	2,266	3,023	3,636	n/a	n/a
Malta	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	5,298	n/a
Netherlands	78,625	70,650	72,958	66,704	59,629	65,314	67,016	72,382	80,193	78,882	82,932	55,999
Poland	82,000	87,800	106,105	97,595	162,000	108,123	114,060	115,187	133,778	165,192	160,019	135,818
Portugal	108,166	112,545	115,075	125,539	91,973	74,023	75,671	68,208	66,275	62,565	60,111	43,470
Romania	n/a	26,400	27,041	27,722	29,125	30,127	32,868	39,638	47,299	67,255	62,520	48,812
Slovakia	10,745	12,931	10,321	14,213	13,980	12,592	14,863	14,444	16,473	17,184	18,834	17,076
Slovenia	5,000	7,000	7,000	7,000	7,000	7,000	8,000	8,000	8,000	10,000	8,561	6,352
Spain	321,177	366,775	365,660	426,738	459,135	496,785	524,479	585,583	641,419	615,072	387,075	257,443
Sweden	11,700	13,000	15,400	19,900	20,000	25,300	23,000	29,800	30,500	32,000	22,800	19,600
UK	181,990	176,860	174,090	181,960	190,490	203,490	209,580	212,800	225,330	182,960	152,640	134,080
Iceland	1,381	1,258	1,711	2,140	2,311	2,355	3,106	3,294	3,348	2,968	898	1,137
Norway	19,892	18,873	22,147	20,856	20,526	22,809	28,398	28,103	29,677	28,083	21,238	17,446
Russia	n/a	373,000	317,000	396,000	427,000	477,000	515,000	609,000	722,000	768,000	702,000	714,100
Turkey	n/a	90,849	86,155	47,049	41,342	40,792	64,126	73,383	68,056	76,069	79,577	65,124
Ukraine	n/a	63,000	65,000	64,000	62,000	71,000	76,000	82,000	n/a	n/a	n/a	n/a
USA	1,604,900	1,573,700	1,570,800	1,648,400	1,678,700	1,841,900	1,931,400	1,979,400	1,502,800	1,119,700	794,400	651,700

Source: European Mortgage Federation National Experts, National Statistics Offices, US Bureau of Census

### Notes:

- n/a: figures not available
- UK series has been revised

## 8. Building Permits

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Austria	45,459	41,460	40,229	42,281	43,500	43,500	43,800	47,400	45,700	41,400	40,700	39,100
Belgium	45,726	42,921	41,284	43,149	45,032	52,204	59,378	61,155	53,922	52,611	45,384	49,448
Bulgaria	n/a	n/a	n/a	n/a	n/a	n/a	n/a	53,049	64,185	49,407	20,166	12,832
Cyprus	6,429	6,096	6,499	6,856	7,548	8,252	9,098	9,794	9,521	8,896	8,950	8,777
Czech Republic	47,035	45,100	45,279	45,961	51,948	51,464	47,974	49,777	47,298	47,389	41,954	39,158
Denmark	17,453	17,208	20,648	23,964	27,526	29,805	35,957	36,434	24,378	16,325	8,646	14,165
Estonia	988	1,076	1,430	3,156	3,419	9,447	9,151	12,863	8,925	5,468	2,081	2,581
Finland	39,045	36,939	30,162	31,235	35,923	35,046	37,135	36,370	33,600	27,100	27,500	33,400
France	340,800	358,800	356,200	350,900	385,300	460,800	511,700	561,700	547,800	455,700	348,300	396,046
Germany	437,584	350,549	291,084	274,120	296,854	268,123	240,468	247,541	182,336	174,595	177,939	187,667
Greece	67,410	69,587	76,693	83,662	83,677	82,236	98,569	84,536	79,407	66,740	57,001	49,362
Hungary	30,577	44,709	47,867	48,762	59,241	57,459	51,490	44,826	44,276	43,862	28,400	17,353
Ireland	23,595	26,332	23,613	19,728	20,949	27,512	25,334	22,774	22,253	17,491	10,380	6,347
Italy	n/a	184,424	189,025	209,228	229,526	268,385	278,602	261,455	250,271	191,783	n/a	n/a
Latvia	n/a	n/a	2,256	2,838	3,421	4,962	6,003	7,246	6,414	4,507	2,663	n/a
Lithuania	n/a	2,038	2,053	2,415	2,989	4,155	5,500	7,482	8,869	8,189	5,994	5,876
Luxembourg	3,739	3,411	2,846	2,956	3,364	3,919	4,692	4,411	4,934	4,017	3,695	3,891
Malta	2,273	3,970	4,180	5,841	6,128	6,707	9,081	10,409	11,343	6,386	5,298	4,444
Netherlands	84,201	78,563	62,326	67,183	72,454	76,180	83,273	96,447	87,918	87,198	72,646	61,028
Poland	106,000	70,000	81,000	39,000	61,000	105,831	115,862	160,545	236,731	223,372	168,440	165,116
Portugal	45,591	44,459	43,367	41,375	36,579	33,411	32,783	30,995	28,381	22,477	15,926	14,435
Romania	n/a	n/a	n/a	n/a	n/a	n/a	43,542	51,065	56,618	61,092	48,833	42,189
Slovakia	11,168	9,884	12,128	14,607	14,065	16,586	19,796	20,592	18,116	28,321	20,325	16,211
Slovenia	5,000	4,000	4,000	4,000	5,000	6,000	6,000	8,000	9,000	8,000	5,209	4,225
Spain	511,854	439,682	393,827	403,271	471,000	543,518	603,633	734,978	633,430	267,876	130,418	91,509
Sweden	15,300	18,500	22,000	18,700	25,300	28,400	34,300	45,300	28,800	24,700	21,400	27,400
UK	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Iceland	n/a	n/a	n/a	n/a	2,336	2,319	2,287	1,466	1,177	n/a	n/a	n/a
Norway	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Russia	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Turkey	n/a	79,140	77,430	43,430	50,140	75,495	114,254	114,204	106,659	95,193	92,342	128,837
Ukraine	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
USA	1,663,500	1,592,300	1,747,700	1,889,200	2,052,100	2,070,100	2,155,300	1,838,900	1,398,400	905,400	583,000	598,000

Source: European Mortgage Federation National Experts, National Statistics Offices, US Bureau of Census

**Notes:**

- n/a: figures not available
- Italian series has been revised; please note that the 2008 and 2009 figures are estimates

## 9. Number of Transactions

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Austria	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Belgium	114,577	108,073	110,973	116,142	119,935	118,777	118,669	121,136	125,565	121,423	114,679	125,215
Bulgaria	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Cyprus	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Czech Republic	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Denmark	70,622	71,290	67,953	67,982	70,568	79,566	85,196	71,905	70,225	53,248	46,215	51,392
Estonia	33,638	38,264	41,817	40,523	46,972	50,589	62,905	62,824	49,788	34,431	26,550	31,447
Finland	93,736	68,540	68,757	68,112	71,374	73,939	81,208	77,121	77,884	83,500	83,700	89,200
France	742,000	785,000	778,000	792,000	803,000	804,000	802,000	n/a	n/a	n/a	590,000	782,000
Germany	567,000	483,000	498,000	500,000	492,000	441,000	503,000	442,000	457,000	456,000	479,000	488,000
Greece	n/a	n/a	n/a	158,599	149,629	165,988	215,148	172,897	167,699	157,978	135,967	111,493
Hungary	121,111	183,950	178,532	230,979	270,574	171,678	193,792	225,734	191,170	154,097	91,137	82,000
Ireland	78,572	80,856	69,062	93,136	97,888	104,305	110,495	110,790	84,194	53,616	25,097	18,313
Italy	639,617	690,476	681,266	761,520	762,086	804,126	833,350	845,051	806,225	686,587	609,145	611,878
Latvia	n/a	22,473	31,647	40,524	51,306	63,600	68,700	n/a	n/a	n/a	n/a	n/a
Lithuania	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Luxembourg	4,734	4,613	4,791	5,170	5,058	4,908	5,011	n/a	3,177	3,001	n/a	n/a
Malta	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Netherlands	204,538	189,358	195,737	198,386	193,406	191,941	206,629	209,767	202,401	182,392	127,532	126,127
Poland	n/a	n/a	n/a	243,000	76,383	81,541	70,757	67,936	67,792	77,526	60,894	n/a
Portugal	375,601	346,188	326,732	329,301	300,105	276,292	300,044	285,483	281,367	241,040	205,285	n/a
Romania	n/a	n/a	n/a	n/a	n/a	n/a	535,000	682,000	521,000	484,000	352,000	352,000
Slovakia	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Slovenia	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	4,900	n/a	10,788
Spain	n/a	n/a	n/a	n/a	n/a	848,390	901,574	955,186	836,871	564,464	463,719	491,287
Sweden	56,900	123,338	122,770	127,912	135,414	141,035	149,072	151,448	163,676	146,882	146,582	151,415
UK	n/a	n/a	n/a	n/a	n/a	n/a	n/a	1,670,000	1,613,000	901,000	859,000	886,000
Iceland	10,254	8,852	8,456	9,096	10,701	12,761	13,415	9,876	13,163	5,218	3,039	3,972
Norway	144,609	151,815	156,391	158,882	161,775	167,456	177,094	179,280	183,035	166,789	166,013	173,558
Russia	n/a	n/a	n/a	n/a	n/a	n/a	2,211,214	2,400,697	2,610,554	2,590,138	2,252,155	3,081,526
Turkey	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Ukraine	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
USA	6,063,000	6,051,000	6,243,000	6,605,000	7,261,000	7,981,000	8,359,000	7,529,000	6,428,000	5,398,000	5,531,000	5,229,000

Source: European Mortgage Federation National Experts, National Central Banks, National Statistics Offices, US Bureau of Census

### Notes:

- n/a: figures not available
- Belgium: transactions on second hand houses only
- France: new apartments as principal and secondary residence or rental
- Ireland: estimate based on mortgage approvals
- Netherlands: existing dwellings; revised series
- Poland: residential premises, urban and rural areas
- Portugal: urban areas only
- Spain: Ministry of Housing data, including transactions of all type of dwellings (new, second-hand, subsidised)
- Sweden: one and two dwelling buildings only
- UK series has been revised, based on a new HM Revenue and Customs series for the UK – before that the source was the Land Registry figures, which are England and Wales only, but have switched to the more comprehensive series
- Hungarian series has been revised
- US series has been revised

## 10. Nominal House Price Indices, 2000=100

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Austria	n/a	n/a	100.0	99.7	100.1	97.4	102.1	105.2	109.1	109.1	112.4	118.1
Belgium	96.1	100.0	103.1	113.0	121.4	128.6	168.2	188.0	204.2	210.9	215.1	224.5
Bulgaria	100.8	100.0	100.3	102.2	114.6	169.1	231.0	264.9	341.5	426.7	335.6	301.7
Cyprus	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Czech Republic	85.6	100.0	106.9	132.5	146.7	146.5	148.3	148.4	191.8	217.1	n/a	n/a
Denmark	92.6	100.0	102.7	106.0	113.1	127.3	157.7	182.2	184.0	165.9	161.3	163.8
Estonia	n/a	n/a	n/a	100.0	119.7	170.9	242.7	293.5	314.6	224.9	151.4	n/a
Finland	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
France	92.1	100.0	108.1	117.9	131.4	154.5	177.2	194.8	205.9	199.9	191.1	209.1
Germany	99.0	100.0	101.0	101.0	100.0	100.6	104.2	104.5	104.2	108.7	107.3	108.0
Greece	89.4	100.0	114.4	130.3	137.3	140.5	155.8	176.4	186.9	190.0	183.0	174.4
Hungary	53.8	100.0	117.3	134.5	160.4	173.0	177.2	186.3	195.2	197.3	184.9	174.4
Ireland	78.8	100.0	104.5	118.4	134.4	146.2	159.9	178.7	166.4	151.8	123.7	110.3
Italy	96.1	100.0	105.7	118.4	125.6	133.3	143.5	151.9	159.4	163.6	162.9	163.1
Latvia	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Lithuania	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Luxembourg	93.6	100.0	110.4	121.2	136.0	154.4	172.2	178.2	180.9	185.8	181.9	190.1
Malta	96.8	100.0	104.3	110.6	122.8	153.8	160.3	175.0	171.9	167.3	158.9	160.6
Netherlands	81.8	100.0	111.1	118.3	122.5	127.7	132.7	138.7	144.6	148.8	143.9	141.0
Poland	n/a	n/a	n/a	n/a	n/a	n/a	100.0	139.6	191.2	198.7	196.8	205.2
Portugal	92.2	100.0	105.4	106.0	107.2	107.9	n/a	n/a	n/a	n/a	n/a	n/a
Romania	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Slovakia	n/a	n/a	100.0	139.6	194.9	225.0	201.9	235.8	292.0	356.6	317.0	304.6
Slovenia	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Spain	92.3	100.0	111.1	130.4	154.5	181.1	204.2	222.8	233.5	226.0	211.8	204.4
Sweden	89.0	100.0	108.0	114.8	122.4	134.2	147.1	163.9	181.4	186.7	190.5	204.6
UK	85.7	100.0	108.4	126.8	146.7	164.1	173.1	184.0	204.1	202.1	186.4	200.1
euro area	94.1	100.0	105.4	112.5	119.6	127.9	137.3	146.3	153.1	155.0	150.7	153.4
EU27	89.4	100.0	106.8	116.4	128.3	144.0	161.4	178.5	193.6	196.1	184.3	185.3
Iceland	83.0	100.0	106.3	111.3	124.5	140.4	190.0	214.1	235.9	245.0	221.6	213.1
Norway	84.3	100.0	107.0	112.3	114.2	125.8	136.2	154.9	174.4	172.5	175.8	190.3
Russia	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Turkey	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Ukraine	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
USA	95.9	100.0	106.6	114.9	124.5	136.1	152.9	154.5	152.5	138.0	120.2	120.5

Source: own calculations on data from European Mortgage Federation, National Statistics Offices, OECD, ECB (for the euro area), US Bureau of Census

**Notes:**

- n/a: figures not available
- standardised national house price indices on national values

## 11. Nominal House Prices, annual % change

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Austria	n/a	n/a	3.5	-0.3	0.4	-2.7	4.8	3.1	3.7	0.0	3.0	5.1
Belgium	6.5	3.9	3.1	9.6	7.4	6.0	30.8	11.8	8.6	3.3	2.0	4.4
Bulgaria	1.3	-0.8	0.3	1.8	12.2	47.5	36.6	14.7	28.9	24.9	-21.4	-10.1
Cyprus	n/a	n/a	n/a	n/a	8.0	20.0	12.0	-6.0	21.8	16.7	-4.1	-2.5
Czech Republic	7.3	14.4	6.9	23.9	10.7	-0.1	1.2	0.1	29.2	13.2	n/a	n/a
Denmark	7.9	7.4	2.7	3.2	6.6	12.6	23.9	15.5	1.0	-9.8	-2.8	1.5
Estonia	n/a	n/a	n/a	16.9	19.7	42.7	42.1	20.9	7.2	-28.5	-32.7	n/a
Finland	8.8	n/a	-0.9	7.9	6.1	7.1	n/a	7.4	5.6	0.5	-0.3	8.7
France	7.5	7.9	8.1	9.0	11.5	17.6	14.7	9.9	5.7	-2.9	-4.4	9.4
Germany	1.0	1.0	1.0	0.0	-1.0	0.6	3.6	0.3	-0.3	4.3	-1.3	0.7
Greece	8.9	10.6	14.4	13.9	5.4	2.3	10.9	13.2	5.9	1.7	-3.7	-4.7
Hungary	32.5	46.2	17.3	14.7	19.3	7.8	2.4	5.2	4.8	1.0	-6.3	-5.7
Ireland	20.4	21.2	4.5	13.3	13.6	8.8	9.3	11.8	-6.9	-8.8	-18.5	-10.8
Italy	1.1	3.9	5.7	11.9	6.1	6.1	7.7	5.8	5.0	2.6	-0.4	0.1
Latvia	n/a	n/a	n/a	14.0	17.5	9.4	12.9	60.7	4.2	-18.4	n/a	n/a
Lithuania	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Luxembourg	6.5	6.4	10.4	9.8	12.2	13.6	11.5	3.5	1.5	2.7	-2.1	4.5
Malta	4.9	3.2	4.3	6.0	11.0	25.2	4.2	9.2	-1.8	-2.7	-5.0	1.1
Netherlands	16.3	18.2	11.1	6.5	3.6	4.3	3.8	4.6	4.2	2.9	-3.3	-2.0
Poland	n/a	n/a	n/a	n/a	n/a	n/a	n/a	39.6	36.9	3.9	-0.9	4.2
Portugal	9.0	7.8	5.4	0.6	1.1	0.6	n/a	2.1	1.3	3.9	0.4	1.8
Romania	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Slovakia	n/a	n/a	n/a	n/a	39.6	15.5	-10.3	16.8	23.9	22.1	-11.1	-3.9
Slovenia	n/a	n/a	n/a	n/a	n/a	10.4	15.6	17.6	22.6	3.1	-8.2	2.8
Spain	9.6	7.7	11.1	17.3	18.5	17.2	12.8	9.1	4.8	-3.2	-6.3	-3.5
Sweden	9.2	11.0	8.0	6.3	6.6	9.6	9.6	11.4	10.7	2.9	2.0	7.4
UK	11.5	14.3	8.4	17.0	15.7	11.8	5.5	6.3	10.9	-0.9	-7.8	7.4
euro area	4.9	5.9	5.4	6.7	6.3	6.9	7.4	6.6	4.6	1.3	-2.8	1.8
EU27	9.5	10.8	6.6	9.7	11.0	12.2	12.1	11.8	9.6	1.4	-5.8	0.7
Iceland	16.2	17.0	6.3	4.7	11.8	12.8	35.3	12.7	10.2	3.9	-9.5	-3.8
Norway	11.2	15.7	7.0	5.0	1.7	10.2	8.3	13.7	12.6	-1.1	1.9	8.3
Russia	n/a	14.7	28.6	23.9	18.8	21.5	17.8	51.3	21.9	13.0	-9.5	1.6
Turkey	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	-9.3	4.1
Ukraine	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	-4.5
USA	3.9	4.1	6.6	7.8	8.4	9.3	12.4	1.0	-1.3	-9.5	-12.9	0.3

Source: European Mortgage Federation, National Statistics Offices, OECD, ECB (for the euro area), US Bureau of Census

### Notes:

- n/a: figures not available
- Austria: new series from 2000; other areas than Vienna
- Belgium: average prices of existing houses
- Cyprus: new and existing houses and flats
- Estonia: Tallinn area house price index
- Germany: from 1998 to 2002, Deutsche Bundesbank calculations based on data provided by BulwienGesa AG; from 2003 to 2010, vdp Price Index for Single-Family Houses, calculated by vdpResearch
- Denmark: all dwellings; series has been revised
- Finland: new series from 2000; another break in series in 2005
- France: second-hand dwellings only
- Greece: urban areas only; new series from 2007
- Hungary: only urban housing; new series from 2004
- Iceland: Reykjavik capital region
- Ireland: House Price Index of the Central Statistics Office (new series)
- Italy: all dwellings; ECB residential property price index (series has been revised)
- Latvia: average residential house prices in Riga
- Netherlands: existing dwellings; series has been revised
- Norway: new series from 2005
- Poland: new series from 2007
- Portugal: new series (Confidencial Imobiliário) from 2005 (new series)
- Slovakia: ECB residential property price index (all dwellings)
- Slovenia: second-hand dwellings
- Spain: all dwellings; series has been revised
- Sweden: one and two dwellings buildings
- UK: Department of Communities and Local Government Index (all dwellings)
- USA: all dwellings

## 12. Residential Construction Price Index, annual % change

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Austria	0.2	0.9	1.1	0.7	1.3	2.2	2.0	2.6	2.4	2.0	2.0	n/a
Belgium	1.7	n/a	5.7	1.5	2.3	5.3	3.7	5.9	2.6	4.5	-3.9	3.1
Bulgaria	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Cyprus	2.6	0.0	5.8	7.5	12.2	16.8	7.7	5.6	5.1	8.1	-3.0	-1.8
Czech Republic	0.3	-0.6	4.5	2.3	6.4	4.7	7.5	5.6	4.8	6.2	5.8	6.9
Denmark	3.4	2.3	3.7	2.2	2.6	2.0	2.3	4.7	6.3	2.9	-0.4	1.2
Estonia	2.4	2.3	5.8	4.2	3.6	5.6	6.5	10.5	12.6	3.4	-8.5	n/a
Finland	2.2	2.7	2.7	0.9	2.6	3.7	3.6	3.8	5.9	3.9	-1.0	1.1
France	0.9	2.7	3.4	2.5	2.4	5.6	2.3	6.6	4.1	7.9	-3.1	1.3
Germany	0.0	0.0	0.0	0.0	0.0	1.6	0.8	1.6	7.0	2.9	0.7	0.7
Greece	4.8	2.3	2.2	3.0	2.5	3.0	3.2	5.0	3.4	2.7	n/a	n/a
Hungary	n/a	11.7	10.4	5.7	3.9	5.9	3.5	6.5	6.6	7.8	2.4	-0.6
Ireland	4.8	3.8	18.2	6.2	2.6	3.1	2.7	3.8	4.1	3.5	-1.2	1.2
Italy	1.6	3.1	9.8	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Latvia	n/a	n/a	-2.3	0.1	2.4	11.8	20.2	58.0	4.3	-13.8	n/a	n/a
Lithuania	-3.1	-1.3	-1.4	0.5	1.0	5.0	1.4	2.0	5.3	-5.7	n/a	n/a
Luxembourg	2.1	3.1	4.2	2.6	2.0	2.9	3.1	2.6	3.1	3.2	1.1	0.7
Malta	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Netherlands	6.2	5.0	7.2	10.4	4.1	-2.6	2.1	10.0	4.9	n/a	n/a	n/a
Poland	n/a	n/a	n/a	n/a	n/a	n/a	3.0	2.9	n/a	n/a	n/a	n/a
Portugal	n/a	n/a	n/a	3.3	1.7	3.8	2.5	3.5	3.6	5.6	-0.8	2.0
Romania	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Slovakia	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Slovenia	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Spain	3.9	6.0	0.0	3.5	1.4	7.0	n/a	7.0	4.9	4.9	0.8	2.0
Sweden	1.5	4.5	4.5	3.5	2.6	3.1	3.8	5.2	6.3	5.0	0.8	2.5
UK	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Iceland	2.4	3.8	6.9	5.8	3.4	6.1	3.9	12.1	6.3	26.7	4.6	0.9
Norway	2.8	4.6	5.0	2.9	3.7	2.7	3.3	3.8	7.4	5.7	2.4	3.1
Russia	n/a	31.2	51.6	24.6	11.2	16.8	17.8	21.9	23.0	28.5	13.9	5.2
Turkey	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Ukraine	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
USA	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Source: European Mortgage Federation National Experts, National Statistics Offices

### Notes:

- Austrian series has been revised
- Cyprus: new series from 2000
- Estonian series has been revised
- Hungary: new series from 2000
- Spain: new series from 2005



## 13. Total Outstanding Residential Loans, EUR million

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Austria	n/a	n/a	29,632	35,998	39,746	48,078	53,815	60,737	65,897	72,061	73,455	80,000
Belgium	65,789	69,988	69,240	74,460	81,344	89,414	101,092	114,105	126,383	137,016	151,738	163,369
Bulgaria	43	54	79	120	205	510	1,006	1,745	2,868	3,960	4,292	4,453
Cyprus	490	584	680	870	1,162	1,487	4,140	5,450	6,989	8,584	10,492	12,033
Czech Republic	n/a	n/a	n/a	1,528	2,419	3,772	6,114	8,140	12,959	16,012	16,975	18,557
Denmark	111,916	117,458	127,380	136,684	147,860	156,989	176,025	194,978	211,381	222,403	231,263	237,313
Estonia	215	286	387	593	954	1,500	2,618	4,278	5,568	6,228	6,116	5,971
Finland	n/a	n/a	n/a	29,273	35,734	41,231	48,136	54,896	61,720	67,114	71,407	76,244
France	285,100	305,300	324,600	350,700	385,400	432,300	503,600	577,800	651,900	710,000	737,600	796,600
Germany	1,118,786	1,097,914	1,122,809	1,139,830	1,156,341	1,157,026	1,162,588	1,183,834	1,155,742	1,145,404	1,146,969	1,152,195
Greece	8,864	11,272	15,652	21,225	26,778	34,052	45,420	57,145	69,363	77,700	80,559	80,507
Hungary	506	715	1,286	3,262	5,805	7,766	10,608	13,242	17,457	22,629	22,425	24,853
Ireland	26,186	32,546	38,343	47,212	59,621	77,615	99,416	123,988	140,562	148,803	147,947	135,806
Italy	82,415	99,331	109,107	130,166	151,975	184,582	217,329	248,758	271,215	271,326	291,160	352,012
Latvia	48	133	220	389	722	1,311	2,486	4,677	6,647	7,135	6,808	6,498
Lithuania	138	146	185	337	669	1,259	2,270	2,999	4,853	6,060	6,032	5,988
Luxembourg	4,458	5,494	6,157	6,647	7,830	8,797	10,586	12,018	14,676	15,940	17,077	18,591
Malta	292	337	768	878	1,030	1,256	1,522	1,775	2,021	2,228	2,472	2,684
Netherlands	234,385	285,252	327,045	373,198	400,153	433,383	480,191	511,156	544,697	588,552	613,877	629,153
Poland	2,745	3,968	5,764	7,061	8,693	9,642	14,646	22,795	35,966	56,539	56,630	67,669
Portugal	42,180	50,735	57,365	64,838	66,425	71,101	79,452	91,896	101,094	105,209	110,685	114,553
Romania	n/a	n/a	n/a	n/a	n/a	294	766	2,176	3,932	5,199	5,718	6,769
Slovakia	n/a	n/a	n/a	1,011	1,415	2,196	3,078	4,212	6,773	8,536	9,469	10,863
Slovenia	52	65	99	201	263	800	1,368	1,956	2,670	3,398	3,933	4,837
Spain	154,556	188,165	220,913	261,921	312,916	384,631	475,571	571,803	646,676	674,434	678,872	680,208
Sweden	110,386	118,828	115,918	124,159	133,794	163,905	174,974	203,085	221,434	219,111	236,167	283,666
UK	777,452	894,105	952,408	1,061,408	1,110,477	1,262,443	1,422,172	1,602,576	1,745,907	1,459,856	1,372,861	1,442,685
EU27	3,027,001	3,282,677	3,526,037	3,873,969	4,139,729	4,577,340	5,100,989	5,682,221	6,137,351	6,061,437	6,112,998	6,414,079
Iceland	4,384	5,333	5,233	5,759	6,412	7,551	10,553	9,828	17,710	n/a	n/a	n/a
Norway	62,148	71,416	80,370	97,129	103,460	110,967	137,373	150,794	176,873	171,689	195,342	219,382
Russia	n/a	n/a	n/a	n/a	n/a	600	1,835	7,855	18,976	31,674	25,471	29,952
Turkey	n/a	n/a	n/a	284	457	1,406	8,080	12,453	18,794	19,386	20,380	30,560
Ukraine	n/a	n/a	n/a	n/a	n/a	n/a	1,787	4,101	7,716	10,133	9,148	8,778
USA	5,000,495	6,139,084	6,838,413	6,772,366	6,346,411	6,617,467	8,476,046	8,448,573	8,204,530	8,853,000	8,011,291	8,383,789

Source: European Mortgage Federation National Experts, European Central Bank, National Central Banks, National Statistics Offices, Federal Reserve

### Notes:

- n/a: figures not available
- Swedish series has been revised; please note that data after 2004 is not comparable with the earlier data due to a change in the statistical source
- Cypriot series has been revised
- Ukrainian series has been revised

## 14. Gross Residential Loans, EUR million

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Austria	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Belgium	17,622	9,513	9,622	11,688	18,134	17,264	25,198	24,323	22,825	21,531	22,076	26,768
Bulgaria	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Cyprus	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Czech Republic	n/a	n/a	n/a	735	1,202	1,590	2,609	4,094	5,395	4,935	2,689	3,216
Denmark	29,303	18,818	33,509	33,870	52,551	46,489	77,592	49,993	43,272	36,964	49,703	47,453
Estonia	87	120	176	301	508	806	1,471	2,339	2,137	1,434	446	419
Finland	8,443	7,457	8,787	8,202	18,656	17,721	25,957	27,000	28,931	26,669	19,739	20,349
France	70,347	63,700	66,200	78,500	95,800	113,400	134,500	149,080	146,800	122,000	89,000	158,000
Germany	153,200	116,500	110,900	103,400	112,300	108,600	109,600	114,200	119,600	121,300	114,600	122,000
Greece	n/a	n/a	n/a	n/a	5,905	8,036	13,610	15,444	15,199	12,435	7,966	n/a
Hungary	n/a	n/a	n/a	n/a	n/a	n/a	2,931	4,197	5,787	6,240	1,907	1,398
Ireland	6,517	7,598	7,664	10,825	13,524	16,933	34,114	39,872	33,808	23,049	8,076	4,746
Italy	36,021	36,377	37,201	43,138	52,397	58,944	66,764	77,305	76,698	71,049	60,698	66,585
Latvia	n/a	n/a	n/a	n/a	n/a	n/a	1,734	n/a	n/a	n/a	n/a	n/a
Lithuania	48	56	103	211	348	594	866	1,172	1,854	1,810	1,051	707
Luxembourg	1,651	1,676	1,906	2,308	2,745	3,386	3,957	4,376	n/a	n/a	n/a	n/a
Malta	n/a	n/a	n/a	n/a	n/a	n/a	226	266	245	205	244	210
Netherlands	78,032	69,593	72,609	81,385	95,996	87,164	114,134	119,872	108,725	91,881	61,824	n/a
Poland	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Portugal	n/a	n/a	n/a	n/a	12,944	18,260	17,578	18,391	19,630	13,375	9,330	10,105
Romania	n/a	n/a	n/a	n/a	n/a	n/a	2,119	3,648	7,864	n/a	n/a	n/a
Slovakia	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	923	1,354
Slovenia	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	672	1,456	1,213
Spain	40,959	47,420	55,265	70,527	91,387	109,028	139,315	156,408	135,576	83,780	68,918	60,986
Sweden	19,501	19,477	22,292	23,735	29,558	33,299	43,885	41,290	43,895	33,776	39,909	45,077
UK	173,800	196,384	258,263	350,376	401,945	425,591	421,253	504,654	530,084	319,011	160,814	158,456
EU27	635,532	594,688	684,497	819,202	1,005,899	1,067,106	1,239,413	1,357,925	1,348,324	992,113	721,369	729,043
Iceland	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Norway	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Russia	n/a	n/a	n/a	n/a	n/a	n/a	1,897	7,602	16,314	17,863	3,455	9,411
Turkey	n/a	n/a	n/a	n/a	n/a	n/a	6,938	8,626	8,718	8,057	9,811	15,939
Ukraine	n/a	n/a	92	188	493	585	1,837	n/a	n/a	n/a	n/a	n/a
USA	1,224,299	1,139,130	2,461,111	3,036,842	3,491,150	2,354,839	2,516,129	2,365,079	1,773,723	1,020,408	1,305,755	1,184,280

Source: European Mortgage Federation National Experts, National Central Banks, Federal Reserve

## Notes:

- n/a: figures not available
- Danish series has been revised
- Finnish series has been revised
- Swedish series has been revised

## 15. Net Residential Loans, EUR million

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Austria	n/a	n/a	n/a	6,366	3,748	8,332	5,737	6,854	4,333	6,164	1,394	6,545
Belgium	5,417	2,478	443	4,720	6,253	6,302	10,036	10,748	11,949	11,780	10,752	12,706
Bulgaria	15	11	24	41	85	306	496	741	n/a	1,092	332	161
Cyprus	182	93	97	190	292	325	2,653	1,310	1,539	1,595	1,908	1,541
Czech Republic	n/a	n/a	n/a	n/a	949	1,278	2,107	1,752	4,450	2,294	1,321	805
Denmark	5,493	5,480	7,523	8,542	9,853	8,712	17,781	17,831	15,784	11,172	8,796	5,854
Estonia	30	71	101	206	361	546	1,118	1,660	1,348	584	-112	-145
Finland	2,880	2,750	3,503	4,152	7,100	5,497	6,906	6,759	6,824	5,394	4,293	4,838
France	21,600	20,200	19,300	26,100	34,700	45,200	65,500	74,200	74,100	48,900	36,800	59,000
Germany	68,942	40,172	27,004	19,311	20,600	7,858	5,738	3,421	-9,754	-7,561	567	5,016
Greece	24	202	465	811	723	1,005	1,943	1,638	1353.538	453	508	-48
Hungary	n/a	n/a	n/a	n/a	n/a	n/a	n/a	3,144	4,449	3,641	58	-231
Ireland	5,331	6,360	5,797	8,869	12,409	17,994	99,416	24,572	16,574	8,241	-856	-12,141
Italy	16,932	16,915	9,776	21,059	21,808	32,608	32,747	31,429	22,456	112	19,833	60,852
Latvia	48	80	88	196	350	575	1,186	2,171	2,071	494	-327	-310
Lithuania	39	-18	43	146	331	591	872	1,128	1,854	1,810	1,051	707
Luxembourg	421	1,036	663	490	1,183	967	1,209	1,339	2,502	2,093	1,137	1,514
Malta	n/a	40	424	144	184	208	271	248	n/a	n/a	n/a	n/a
Netherlands	35,382	50,867	41,793	46,153	26,955	33,230	46,808	30,965	33,541	43,855	25,325	15,276
Poland	674	1,075	1,434	1,573	2,501	1,192	3,911	7,402	11,620	23,156	5,369	8,135
Portugal	n/a	n/a	n/a	n/a	n/a	4,676	8,351	12,444	9,198	4,115	5,476	3,868
Romania	n/a	n/a	n/a	n/a	n/a	n/a	1,195	790	1,852	1,760	n/a	n/a
Slovakia	n/a	n/a	n/a	n/a	375	729	801	1,018	1,893	n/a	923	281
Slovenia	n/a	5	32	107	95	563	570	588	n/a	727	16	865
Spain	26,228	33,608	43,048	41,008	50,995	71,715	90,940	96,232	74,873	27,757	4,438	1,337
Sweden	3,611	3,742	7,488	6,975	9,097	11,760	19,474	21,355	21,832	19,176	19,099	18,277
UK	57,192	66,813	86,923	125,122	146,497	147,158	133,296	161,396	158,223	51,645	13,115	9,815
EU27	250,441	251,981	255,968	322,280	357,445	409,327	561,062	523,134	474,864	270,450	161,216	189,125
Iceland	541	672	805	451	684	1,175	2,142	421	n/a	n/a	n/a	n/a
Norway	4,701	7,448	8,723	10,597	12,334	12,036	18,833	20,498	18,229	17,059	12,131	15,799
Russia	n/a	n/a	n/a	n/a	n/a	n/a	1,185	6,028	11,434	12,840	-672	3,349
Turkey	n/a	n/a	n/a	n/a	326	1,845	6,204	5,723	5,067	3,586	2,597	7,969
Ukraine	n/a	n/a	n/a	71	267	141	1,166	2,617	4,332	6,838	4,994	4,569
USA	436,542	493,913	660,111	835,474	786,637	855,403	948,790	884,048	519,416	-72,449	-151,079	-240,477

Source: European Mortgage Federation National Experts, National Central Banks

### Notes:

- n/a: figures not available
- Danish series has been revised
- Swedish series has been revised: please note that data after 2005 is not comparable with the earlier data due to a change in the statistical source

## 16. Total Outstanding Non Residential Loans, EUR million

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Austria	n/a	n/a	36,712	35,184	35,371	31,929	31,673	n/a	n/a	n/a	n/a	n/a
Belgium	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Bulgaria	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Cyprus	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Czech Republic	n/a	n/a	n/a	552	976	1,346	1,651	2,464	3,048	5,072	5,416	5,781
Denmark	35,136	35,861	37,640	40,683	43,679	46,366	50,210	54,173	61,555	71,141	76,855	79,668
Estonia	1,704	2,188	2,601	3,193	4,420	5,915	8,018	11,369	15,307	16,626	15,642	n/a
Finland	n/a	n/a	n/a	n/a	17,300	18,784	20,908	23,058	24,858	26,301	26,981	28,028
France	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Germany	207,797	217,645	223,644	232,701	257,432	258,045	258,569	256,332	260,008	254,862	255,721	251,450
Greece	1,608	1,811	2,172	2,903	3,247	4,040	4,190	4,194	4,774	n/a	n/a	n/a
Hungary	n/a	n/a	n/a	n/a	2,095	2,633	2,961	3,491	4,760	7,494	7,824	8,447
Ireland	4,251	4,925	6,384	8,046	6,998	9,486	11,332	15,437	17,828	16,193	15,147	n/a
Italy	34,398	37,328	40,452	42,983	43,292	50,782	53,888	63,752	69,150	66,240	71,311	74,014
Latvia	n/a	n/a	203	385	519	825	1,048	1,539	2,560	2,634	2,513	n/a
Lithuania	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Luxembourg	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Malta	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Netherlands	12,758	13,728	13,805	18,509	20,157	23,204	24,317	25,065	23,440	23,772	n/a	n/a
Poland	n/a	n/a	n/a	718	1,141	1,732	2,316	3,673	5,540	8,755	8,492	14,111
Portugal	n/a	n/a	n/a	n/a	n/a	15,720	n/a	n/a	n/a	n/a	84,397	n/a
Romania	n/a	n/a	n/a	n/a	n/a	n/a	4,454	8,876	17,212	n/a	n/a	n/a
Slovakia	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	39,401	21,933	n/a
Slovenia	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	2,855	2,833
Spain	64,483	73,864	91,200	115,092	154,952	197,801	263,763	339,620	400,765	414,512	420,669	396,719
Sweden	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
UK	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Iceland	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Norway	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Russia	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	7,846	n/a	n/a	n/a
Turkey	n/a	n/a	n/a	n/a	n/a	224	618	1,081	1,651	1,687	1,439	2,111
Ukraine	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
USA	1,041,543	1,292,321	1,422,456	1,344,987	1,218,297	1,244,183	1,616,481	1,658,442	1,680,782	1,907,502	1,692,692	1,702,496

Source: European Mortgage Federation National Experts, National Central Banks, Federal Reserve

## Notes:

- n/a: figures not available

## 17. Gross Non Residential Loans, EUR million

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Austria	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Belgium	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Bulgaria	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Cyprus	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Czech Republic	n/a	n/a	n/a	249	293	546	709	899	1,312	2,213	706	575
Denmark	13,545	5,841	11,391	10,797	16,329	12,305	22,827	12,910	18,025	17,382	14,249	12,206
Estonia	105	194	256	363	412	702	1,564	2,893	9,581	8,316	4,080	n/a
Finland	n/a	n/a	n/a	n/a	7,491	7,447	8,547	8,932	8,985	8,928	7,241	7,624
France	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Germany	n/a	23,500	22,100	22,100	24,900	25,000	26,900	38,200	56,700	41,700	33,100	28,200
Greece	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Hungary	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Ireland	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Italy	14,534	12,239	12,070	15,259	15,315	16,453	16,782	22,278	21,179	20,823	19,233	16,239
Latvia	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Lithuania	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Luxembourg	552	638	828	823	1,108	779	784	906	n/a	n/a	n/a	n/a
Malta	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Netherlands	40,270	36,988	49,226	42,972	64,138	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Poland	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Portugal	n/a	n/a	n/a	n/a	n/a	1,520	n/a	n/a	n/a	n/a	n/a	n/a
Romania	n/a	n/a	n/a	n/a	n/a	n/a	15,312	23,603	39,509	n/a	n/a	n/a
Slovakia	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Slovenia	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	352
Spain	28,458	27,857	34,472	45,047	63,411	86,266	110,756	127,682	121,072	99,335	88,703	63,278
Sweden	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
UK	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Iceland	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Norway	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Russia	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Turkey	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Ukraine	n/a	n/a	9	19	49	58	184	n/a	n/a	n/a	n/a	n/a
USA	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Source: European Mortgage Federation National Experts, National Central Banks

### Notes:

- n/a: figures not available
- Swedish series has been revised due a change in the statistical source

## 18. Net Non Residential Loans, EUR million

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Austria	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Belgium	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Bulgaria	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Cyprus	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Czech Republic	n/a	n/a	n/a	n/a	445	340	222	739	471	1,846	457	117
Denmark	1,937	1,180	2,431	2,913	2,961	3,600	3,945	3,807	7,275	10,086	5,936	2,874
Estonia	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	1,348	243	n/a	n/a
Finland	n/a	n/a	n/a	n/a	n/a	1,484	2,123	2,151	1,800	1,443	679	1,048
France	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Germany	8,742	6,123	2,822	2,978	-6,840	-2,441	-4,673	-4,443	-5,758	-1,186	-1,010	-6,088
Greece	103	203	330	731	585	551	150	4	580	n/a	n/a	n/a
Hungary	n/a	n/a	n/a	n/a	n/a	n/a	n/a	275	1,354	2,731	925	263
Ireland	842	674	1,459	1,662	-1,048	752	-75,769	4,105	2,391	-1,635	-1,046	n/a
Italy	7,968	2,931	3,123	2,531	309	7,490	3,106	9,864	5,399	-2,910	5,071	2,703
Latvia	n/a	n/a	336	103	265	322	935	1,676	-755	349	n/a	n/a
Lithuania	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Luxembourg	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Malta	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Netherlands	571	970	77	4,704	1,648	3,047	1,113	748	-1,625	332	n/a	n/a
Poland	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	860	573	5,174
Portugal	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	7,113	n/a
Romania	n/a	n/a	n/a	n/a	n/a	n/a	4,109	8,534	16,715	n/a	n/a	
Slovakia	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	532	n/a
Slovenia	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	8,747	n/a	-22
Spain	13,090	9,382	7,036	23,892	39,860	42,849	65,962	75,858	61,144	13,748	6,157	-23,951
Sweden	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
UK	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Iceland	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Norway	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Russia	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Turkey	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Ukraine	n/a	n/a	n/a	39	103	7	189	n/a	n/a	n/a	n/a	n/a
USA	95,888	115,870	122,000	105,474	112,566	138,226	200,161	217,222	187,956	88,095	-65,971	-122,275

Source: European Mortgage Federation National Experts, National Central Banks, Federal Reserve

## Notes:

- n/a: figures not available
- Swedish series has been revised due a change in the statistical source

## 19. Loan-to-Value ratios for mortgage loans, national averages, %

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Austria	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Belgium	n/a	n/a	n/a	80.0	80.0	n/a	80.0	80.0	n/a	n/a	n/a	n/a
Bulgaria	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Cyprus	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Czech Republic	n/a	n/a	n/a	n/a	n/a	n/a	53.0	43.0	45.0	43.0	56.0	56.0
Denmark	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Estonia	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Finland	n/a	n/a	n/a	n/a	n/a	n/a	70.0	72.0	71.0	72.0	76.0	74.0
France	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Germany	68.0	n/a	n/a	71.0	n/a	n/a	n/a	72.0	n/a	n/a	74.0	n/a
Greece	n/a	n/a	n/a	n/a	56.0	58.0	n/a	n/a	79.0	n/a	n/a	60.0
Hungary	n/a	n/a	n/a	n/a	n/a	47.0	54.0	58.0	61.0	n/a	n/a	n/a
Ireland	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Italy	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Latvia	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Lithuania	n/a	n/a	n/a	n/a	n/a	75.0	n/a	n/a	n/a	n/a	n/a	n/a
Luxembourg	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Malta	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Netherlands	n/a	n/a	n/a	n/a	n/a	n/a	83.0	n/a	n/a	n/a	80.0	n/a
Poland	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	50-80.0	50-80.0
Portugal	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Romania	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	68.4	69.5	70.0
Slovakia	n/a	n/a	n/a	n/a	60.0	80.0	80.0	85.0	80.0	85.0	70.0	85.0
Slovenia	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	60.5	52.0	55.5	n/a
Spain	n/a	n/a	n/a	n/a	n/a	64.1	64.2	63.8	62.8	59.8	56.2	57.9
Sweden	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
UK	85.3	84.3	81.9	80.0	75.0	72.4	77.9	80.0	80.0	76.0	74.0	73.0
Iceland	65.0	65.0	65.0	65.0	90.0	90.0	80.0	80.0	80.0	80.0	80.0	80.0
Norway	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Russia	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	75.0
Turkey	n/a	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0
Ukraine	n/a	n/a	n/a	n/a	n/a	70.0	80.0	85.0	80.0	75.0	50.0	60.0
USA	78.5	77.8	76.2	75.1	73.5	74.9	74.7	76.6	79.4	76.9	74.5	74.0

Source: European Mortgage Federation National Experts, European Central Bank, National Central Banks, Federal Housing Finance Board

### Notes:

- n/a: figure not available
- Germany: average for clients of mortgage banks and commercial banks
- Iceland: First-Time Buyers
- Spain: new lending only
- Slovakia: First-Time Buyers
- USA: average LTV For conventional Single- Family Homes (annual National Average) ); series has been revised

## 20. Representative Interest Rates on new mortgage loans, %

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Austria	6.00	7.13	6.00	5.38	4.41	3.90	3.58	3.80	4.79	5.32	3.71	2.71
Belgium	7.10	7.25	6.90	6.55	6.00	5.15	4.95	5.40	4.93	4.99	4.43	3.84
Bulgaria	17.85	15.86	15.14	13.14	12.62	10.58	6.88	8.50	10.40	10.23	9.72	8.34
Cyprus	8.00	8.00	7.00	6.78	6.30	7.30	6.22	5.74	5.61	6.47	5.01	5.16
Czech Republic	n/a	n/a	n/a	n/a	5.00	4.74	3.98	4.36	5.34	5.69	5.61	4.23
Denmark	7.37	7.24	6.40	5.66	5.45	4.97	4.44	5.22	5.94	6.58	5.19	4.68
Estonia	11.80	13.10	10.30	7.40	4.60	3.70	3.70	4.40	6.20	8.20	5.90	3.00
Finland	5.00	6.50	5.30	4.10	3.29	3.09	3.27	4.21	4.94	4.16	2.00	2.17
France	5.90	6.40	5.40	5.10	4.40	4.25	3.50	3.90	4.60	5.20	4.60	4.00
Germany	6.40	6.44	5.87	5.52	5.14	4.63	4.19	4.64	5.03	4.83	4.29	3.70
Greece	10.24	6.77	4.76	4.61	4.53	4.37	3.91	4.41	4.45	5.21	3.41	3.79
Hungary	n/a	n/a	n/a	n/a	n/a	n/a	5.93	5.82	6.42	7.23	9.23	9.44
Ireland	4.38	6.17	4.72	4.69	3.50	3.47	3.68	4.57	5.07	4.33	2.61	3.01
Italy	6.10	6.50	5.30	5.03	3.80	3.66	3.73	4.87	5.73	5.09	2.88	2.97
Latvia	14.20	11.40	11.10	8.60	8.30	5.73	4.55	5.55	6.57	6.66	4.50	4.15
Lithuania	10.07	9.93	8.77	6.05	4.97	3.79	3.36	4.66	5.82	5.26	3.64	3.21
Luxembourg	5.00	5.98	4.76	4.40	3.41	3.38	3.62	4.51	4.83	4.22	2.03	1.88
Malta	n/a	n/a	n/a	n/a	4.50	4.34	4.52	4.95	5.39	3.30	3.52	3.46
Netherlands	5.14	5.88	5.88	5.33	4.93	4.42	3.90	4.61	5.11	5.49	5.26	4.57
Poland	n/a	n/a	n/a	9.60	7.60	8.10	6.00	5.70	6.20	8.70	7.10	6.10
Portugal	n/a	n/a	n/a	n/a	3.43	3.39	3.50	4.40	5.18	4.96	2.22	2.96
Romania	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	6.50	7.03	5.06	5.23
Slovakia	n/a	9.98	9.10	8.62	7.21	6.87	4.65	6.30	6.23	6.20	5.50	5.04
Slovenia	12.40	15.40	14.80	13.50	10.16	7.58	6.13	5.64	6.27	6.89	3.36	3.21
Spain	4.40	5.90	4.50	3.80	3.31	3.22	3.20	4.49	5.37	5.89	2.52	2.54
Sweden	4.39	4.87	4.71	4.87	3.73	2.98	2.37	3.64	4.77	3.64	1.44	2.78
UK	5.98	5.19	5.48	4.58	4.18	5.04	5.24	5.12	5.75	5.83	4.28	3.75
Iceland	5.10	5.10	5.10	5.10	5.10	4.15	4.70	4.95	5.75	5.40	5.05	5.00
Norway	7.19	8.64	8.15	8.38	3.80	3.53	3.94	5.08	7.21	5.74	3.82	4.08
Russia	n/a	24.40	n/a	n/a	n/a	n/a	14.90	13.70	12.60	12.90	14.30	13.10
Turkey	n/a	n/a	n/a	n/a	n/a	n/a	n/a	1.75	1.24	1.59	1.26	0.92
Ukraine	n/a	n/a	n/a	n/a	n/a	20.00	16.00	17.75	14.80	22.80	26.00	26.20
USA	7.43	8.06	6.97	6.54	5.82	5.84	5.86	6.41	6.34	6.04	5.04	4.69

Source: European Mortgage Federation, National Central Banks

### Notes:

- For more information on the national definitions of representative interest rates on mortgage loans, see the annexed "Explanatory Note on data"
- n/a: figures not available
- Latvian series has been revised
- Dutch series has been revised
- Portuguese series has been revised
- Turkish series has been revised



## 21. Total Covered Bonds Outstanding (backed by mortgages), EUR million

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Austria	n/a	n/a	n/a	n/a	4,000	4,000	4,000	3,880	4,125	4,973	5,317	9,647
Belgium	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Bulgaria	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Cyprus	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Czech Republic	n/a	n/a	n/a	n/a	1,638	1,956	4,452	5,543	8,245	8,098	8,186	8,242
Denmark	155,003	155,426	161,312	212,794	204,695	216,133	246,411	260,367	244,696	255,140	319,434	332,505
Estonia	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Finland	n/a	n/a	n/a	n/a	n/a	250	1,500	3,000	4,500	5,750	7,625	10,125
France	n/a	n/a	n/a	n/a	38,344	47,491	57,153	73,977	103,604	159,407	176,043	200,585
Germany	n/a	247,484	255,873	261,165	256,027	246,636	237,547	223,306	206,489	217,367	225,100	219,947
Greece	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	5,000	6,500	19,750
Hungary	n/a	n/a	n/a	n/a	3,568	4,962	5,072	5,924	5,987	7,105	7,437	6,191
Ireland	n/a	n/a	n/a	n/a	n/a	2,000	4,140	11,900	13,575	23,075	29,725	29,037
Italy	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	6,500	14,000	26,925
Latvia	n/a	n/a	n/a	n/a	35	54	60	63	90	90	85	63
Lithuania	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Luxembourg	n/a	n/a	n/a	n/a	n/a	n/a	n/a	150	150	150	n/a	n/a
Malta	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Netherlands	n/a	n/a	n/a	n/a	n/a	n/a	2,000	7,500	15,727	20,977	28,367	40,764
Poland	n/a	n/a	n/a	n/a	160	220	558	453	676	561	583	511
Portugal	n/a	n/a	n/a	n/a	n/a	n/a	n/a	2,000	7,850	15,270	20,270	27,730
Romania	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Slovakia	n/a	n/a	n/a	n/a	510	1,052	1,583	2,214	2,738	3,576	3,608	3,442
Slovenia	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Spain	5,313	7,334	15,177	33,100	62,811	100,657	165,903	214,768	264,894	307,464	334,670	341,321
Sweden	n/a	n/a	n/a	n/a	n/a	n/a	n/a	55,267	92,254	117,628	133,903	188,750
UK	n/a	n/a	n/a	n/a	5,000	14,959	26,778	50,548	81,964	204,278	201,096	205,370
EU27	160,316	410,244	432,362	507,059	571,087	634,421	741,466	920,859	1,059,630	1,370,001	1,524,029	1,672,984

Iceland	n/a	n/a	n/a	n/a	n/a	n/a	n/a	467	794	300	n/a	n/a
Norway	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	6,371	21,924	53,449	69,871
Russia	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	57	57	398	n/a
Turkey	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Ukraine	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	11	4	n/a
USA	n/a	n/a	n/a	n/a	n/a	n/a	n/a	4,000	12,859	12,937	12,888	11,497

Source: European Covered Bond Council

### Notes:

- n/a: figures not available
- Please note that covered bonds include only bonds secured on property by mortgage lending institutions
- Austrian and Icelandic figures for 2009 are estimates

## 22. Total Covered Bonds Issuance (backed by mortgages), EUR million

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Austria	n/a	n/a	n/a	n/a	1,029	n/a	214	2,176	1,959	1,321	1,442	1,159
Belgium	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Bulgaria	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Cyprus	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Czech Republic	n/a	n/a	n/a	n/a	666	744	2,558	956	3,514	939	738	724
Denmark	53,217	36,067	61,262	66,352	99,727	95,009	149,708	114,014	70,955	103,230	125,484	148,475
Estonia	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Finland	n/a	n/a	n/a	n/a	n/a	250	1,250	1,500	1,500	1,250	2,125	5,250
France	n/a	n/a	n/a	n/a	10,981	11,312	12,972	21,269	33,511	64,009	37,285	51,525
Germany	n/a	49,553	44,013	51,784	57,621	40,773	33,722	35,336	26,834	57,345	56,852	42,216
Greece	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	5,000	1,500	17,250
Hungary	n/a	n/a	n/a	n/a	2,961	2,381	808	1,418	331	3,331	3,209	782
Ireland	n/a	n/a	n/a	n/a	0	2,000	2,000	7,753	1,675	9,506	14,801	6,000
Italy	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	6,500	7,500	12,925
Latvia	n/a	n/a	n/a	n/a	11	22	4	20	19	25	n/a	n/a
Lithuania	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Luxembourg	n/a	n/a	n/a	n/a	n/a	n/a	n/a	150	n/a	n/a	n/a	n/a
Malta	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Netherlands	n/a	n/a	n/a	n/a	n/a	n/a	2,000	5,500	8,227	5,608	7,725	13,731
Poland	n/a	n/a	n/a	n/a	123	63	224	52	206	197	88	138
Portugal	n/a	n/a	n/a	n/a	n/a	n/a	n/a	2,000	5,850	7,420	6,000	11,610
Romania	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Slovakia	n/a	n/a	n/a	n/a	355	549	584	676	803	1,414	707	1,179
Slovenia	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Spain	4,583	2,293	8,138	15,120	27,050	39,235	55,880	67,115	56,126	48,010	51,187	47,021
Sweden	n/a	n/a	n/a	n/a	n/a	n/a	n/a	17,569	36,638	43,488	53,106	79,910
UK	n/a	n/a	n/a	n/a	5,000	9,959	11,819	23,770	31,874	121,030	30,431	28,636
EU27	57,800	87,913	113,413	133,256	206,977	200,898	275,644	304,048	275,696	485,799	392,574	473,427
Iceland	n/a	n/a	n/a	n/a	n/a	n/a	n/a	467	321	n/a	n/a	n/a
Norway	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	6,458	15,660	30,081	21,180
Russia	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Turkey	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Ukraine	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	7	n/a	n/a
USA	n/a	n/a	n/a	n/a	n/a	n/a	n/a	4,000	8,859	n/a	n/a	n/a

Source: European Covered Bond Council

### Notes:

- n/a: figures not available

## 23. Total Residential Mortgage-Backed Securities (RMBS) Issues, EUR million

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Austria	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Belgium	n/a	39	60	n/a	2,270	1,050	n/a	n/a	n/a	n/a	19,154	11,392
Bulgaria	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Cyprus	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Czech Republic	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Denmark	n/a	n/a	n/a	n/a	n/a	n/a	100	n/a	n/a	n/a	n/a	n/a
Estonia	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Finland	n/a	n/a	n/a	n/a	n/a	500	n/a	n/a	n/a	n/a	n/a	n/a
France	n/a	n/a	n/a	4,590	6,080	4,690	4,000	300	n/a	6,900	n/a	5,000
Germany	n/a	n/a	n/a	3,030	2,860	1,130	1,100	6,200	n/a	n/a	1,125	363
Greece	n/a	n/a	n/a	n/a	250	741	1,500	3,600	2,805	n/a	1,410	n/a
Hungary	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Ireland	n/a	n/a	n/a	n/a	1,820	2,000	2,000	7,900	1,675	9,500	13,757	4,157
Italy	275	1,510	8,085	6,578	8,871	7,417	9,850	16,946	22,267	75,735	53,166	9,965
Latvia	n/a	n/a	n/a	n/a	n/a	51	n/a	n/a	n/a	n/a	n/a	n/a
Lithuania	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Luxembourg	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Malta	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Netherlands	3,843	7,430	9,171	17,611	17,900	16,060	25,000	26,500	35,300	49,400	40,894	124,990
Poland	0	0	0	0	0	0	0	0	0	0	0	0
Portugal	n/a	n/a	1,000	1,900	8,000	4,920	7,000	4,400	n/a	n/a	8,697	9,352
Romania	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Slovakia	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Slovenia	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Spain	6,261	3,124	6,858	7,915	15,867	19,584	32,403	39,254	55,413	72,413	26,621	16,045
Sweden	n/a	n/a	280	1,470	1,000	1,513	n/a	n/a	n/a	n/a	n/a	n/a
UK	n/a	22,650	25,470	35,270	55,460	79,773	103,311	202,823	n/a	n/a	70,534	87,959
Iceland	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Norway	11,787	8,179	5,772	16,810	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Russia	n/a	n/a	n/a	n/a	n/a	n/a	n/a	100	n/a	n/a	727	2,900
Turkey	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Ukraine	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
USA	778,532	668,520	1,505,511	1,954,153	2,403,837	1,516,801	1,738,856	1,622,832	1,360,981	834,598	1,284,336	1,101,503

Source: European Securitisation Forum/Association for Financial Markets in Europe, Federal Reserve

### Notes:

- n/a: figures not available

## 24. GDP at Current Market Prices, EUR million

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Austria	197,979	207,529	212,499	218,848	224,996	234,708	245,243	259,035	274,020	282,746	274,818	286,197
Belgium	238,569	252,216	259,433	268,256	275,716	290,825	302,845	318,150	335,085	345,006	339,162	352,941
Bulgaria	12,164	13,704	15,552	17,027	18,374	20,388	23,256	26,477	30,772	35,431	34,933	36,034
Cyprus	9,163	10,079	10,801	11,170	11,785	12,728	13,659	14,673	15,951	17,287	16,946	17,465
Czech Republic	56,415	61,495	69,045	80,004	80,924	88,262	100,190	113,696	127,331	147,879	137,162	145,049
Denmark	163,200	173,598	179,226	184,744	188,500	197,070	207,367	218,747	227,534	233,482	222,410	234,006
Estonia	5,359	6,160	6,971	7,776	8,719	9,685	11,182	13,391	16,069	16,304	13,840	14,305
Finland	122,222	132,110	139,198	143,541	145,531	152,266	157,429	165,765	179,830	185,651	173,267	180,253
France	1,367,965	1,441,373	1,495,553	1,542,928	1,587,902	1,655,571	1,718,047	1,798,115	1,886,792	1,933,195	1,889,231	1,932,802
Germany	2,012,000	2,062,500	2,113,160	2,143,180	2,147,500	2,195,700	2,224,400	2,313,900	2,428,500	2,473,800	2,374,500	2,476,800
Greece	131,936	137,930	146,428	156,615	172,431	185,266	194,819	211,300	227,074	236,917	235,017	230,173
Hungary	46,092	51,320	59,656	70,922	74,278	82,740	88,574	89,798	100,742	106,373	92,942	98,446
Ireland	90,378	104,830	117,136	130,464	140,981	150,561	163,462	178,297	189,933	179,990	160,596	155,992
Italy	1,127,091	1,191,057	1,248,648	1,295,226	1,335,354	1,391,530	1,429,479	1,485,377	1,546,177	1,567,761	1,519,702	1,548,816
Latvia	6,818	8,496	9,320	9,911	9,943	11,155	12,928	15,982	21,027	22,890	18,521	17,974
Lithuania	10,292	12,377	13,577	15,052	16,497	18,158	20,870	23,979	28,577	32,288	26,508	27,410
Luxembourg	19,887	22,001	22,572	23,992	25,834	27,456	30,283	33,920	37,491	39,644	38,073	41,597
Malta	3,661	4,221	4,301	4,489	4,533	4,545	4,811	5,074	5,455	5,840	5,830	6,164
Netherlands	386,193	417,960	447,731	465,214	476,945	491,184	513,407	540,216	571,773	594,481	571,145	588,414
Poland	157,470	185,714	212,294	209,617	191,644	204,237	244,420	272,089	311,002	363,154	310,418	354,318
Portugal	114,193	122,270	134,137	140,142	143,015	148,827	153,728	160,274	169,319	171,983	168,587	172,721
Romania	33,766	40,651	45,357	48,615	52,577	61,064	79,802	97,751	124,729	139,765	117,457	121,942
Slovakia	19,177	22,029	23,573	25,972	29,489	33,995	38,489	44,566	54,905	64,572	63,051	65,906
Slovenia	20,710	21,435	22,707	24,527	25,819	27,228	28,731	31,051	34,562	37,280	35,311	35,416
Spain	579,942	630,263	680,678	729,206	782,929	841,042	908,792	984,284	1,053,537	1,088,124	1,053,914	1,062,591
Sweden	241,155	266,422	253,743	266,740	278,914	291,634	298,353	318,171	337,944	333,256	291,347	346,856
UK	1,409,858	1,602,240	1,643,154	1,710,421	1,647,056	1,772,546	1,833,954	1,948,518	2,052,847	1,815,417	1,565,750	1,696,583
EU15	6,105,336	6,348,446	6,700,777	7,087,156	7,457,441	7,763,009	8,040,275	8,446,549	8,932,085	9,161,867	8,919,524	9,155,572
EU27	8,162,389	8,583,654	9,201,979	9,588,080	10,096,416	10,598,455	11,046,960	11,680,572	12,386,826	12,472,628	11,750,410	12,248,492
Iceland	7,383	8,194	9,421	8,830	9,711	10,674	13,112	13,316	14,932	10,304	8,674	9,495
Norway	134,701	149,262	182,579	190,956	199,146	208,256	242,935	268,363	283,366	305,323	267,066	311,855
Russia	241,998	183,812	281,184	342,321	380,383	475,261	613,861	788,414	948,342	1,128,887	876,348	1,105,136
Turkey	239,001	233,871	289,933	217,905	273,401	319,943	392,514	425,031	479,209	506,432	440,367	552,830
Ukraine	37,404	29,631	33,848	42,440	44,318	52,162	69,273	85,818	104,136	122,461	84,173	102,901
USA	7,843,694	8,776,037	10,774,686	11,485,261	9,849,894	9,529,142	10,146,291	10,654,030	10,236,191	9,716,821	9,993,548	10,957,470

Source: Eurostat, International Monetary Fund, Bureau of Economic Analysis

## Notes:

- n/a: figures not available

## 25. GDP per capita at Purchasing Parity Standards (PPS), EU27=100

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Austria	131	131	125	126	127	127	124	125	123	124	124	125
Belgium	123	126	124	125	123	121	120	118	116	115	116	118
Bulgaria	27	28	30	32	34	35	37	38	40	44	44	43
Cyprus	87	89	91	89	89	90	91	91	93	97	98	98
Czech Republic	69	68	70	70	73	75	76	77	80	81	82	80
Denmark	131	132	128	128	124	126	124	124	123	123	121	125
Estonia	42	45	46	50	55	57	62	66	69	68	64	65
Finland	115	117	115	115	113	116	114	114	118	118	113	116
France	115	115	115	115	111	110	110	108	108	106	107	107
Germany	122	118	117	115	116	116	117	116	116	116	116	119
Greece	83	84	86	90	93	94	92	93	92	94	94	89
Hungary	55	55	59	62	63	63	63	63	62	65	65	64
Ireland	126	131	132	138	141	142	144	146	147	133	127	125
Italy	117	117	118	112	111	107	105	104	104	104	104	100
Latvia	36	37	39	41	43	46	49	52	56	56	52	52
Lithuania	39	39	41	44	49	50	53	55	59	61	55	58
Luxembourg	238	245	234	240	248	253	255	270	275	280	272	283
Malta	81	84	78	79	78	77	79	76	77	79	81	83
Netherlands	131	134	134	133	129	129	131	131	132	134	131	134
Poland	49	48	48	48	49	51	51	52	55	56	61	62
Portugal	81	81	80	80	79	77	79	79	79	78	80	81
Romania	26	26	28	29	31	34	35	38	42	47	46	45
Slovakia	51	50	52	54	55	57	60	63	68	72	73	74
Slovenia	81	80	80	82	83	86	88	88	89	91	88	87
Spain	96	97	98	100	101	101	102	105	105	103	103	101
Sweden	126	128	122	122	124	126	122	123	125	123	119	123
UK	118	119	120	121	122	124	122	120	116	115	113	113
EU15	115	115	115	114	114	113	113	112	112	111	110	110
EU27	100	100	100	100	100	100	100	100	100	100	100	100

Iceland	139	132	132	130	125	131	130	123	121	122	117	n/a
Norway	145	165	161	155	156	164	176	183	179	189	175	179
Russia	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Turkey	40	42	37	36	36	40	42	44	45	47	45	48
Ukraine	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
USA	163	161	156	154	156	157	159	154	151	146	145	149

Source: Eurostat

**Notes:**

- n/a: figures not available

## 26. Real GDP growth rate, %

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Austria	3.3	3.7	0.5	1.6	0.8	2.5	2.5	3.6	3.7	2.2	-3.9	2.1
Belgium	3.4	3.7	0.8	1.4	0.8	3.2	1.7	2.7	2.9	1.0	-2.8	2.2
Bulgaria	2.3	5.4	4.2	4.7	5.5	6.7	6.4	6.5	6.4	6.2	-5.5	0.2
Cyprus	4.8	5.0	4.0	2.1	1.9	4.2	3.9	4.1	5.1	3.6	-1.7	1.0
Czech Republic	1.3	3.6	2.5	1.9	3.6	4.5	6.3	6.8	6.1	2.5	-4.1	2.3
Denmark	2.6	3.5	0.7	0.5	0.4	2.3	2.4	3.4	1.6	-1.1	-5.2	1.7
Estonia	-0.3	10.0	7.5	7.9	7.6	7.2	9.4	10.6	6.9	-5.1	-13.9	3.1
Finland	3.9	5.1	2.3	1.8	2.0	4.1	2.9	4.4	5.3	1.0	-8.2	3.6
France	3.3	3.9	1.8	0.9	0.9	2.5	1.8	2.5	2.3	-0.1	-2.7	1.5
Germany	2.0	3.2	1.2	0.0	-0.2	1.2	0.8	3.4	2.7	1.0	-4.7	3.6
Greece	3.4	4.5	4.2	3.4	5.9	4.4	2.3	5.2	4.3	1.0	-2.0	-4.5
Hungary	4.2	5.2	3.8	4.1	4.0	4.5	3.2	3.6	0.8	0.8	-6.7	1.2
Ireland	10.7	9.2	4.8	5.9	4.2	4.5	5.3	5.3	5.2	-3.0	-7.0	-0.4
Italy	1.5	3.6	1.8	0.5	0.0	1.5	0.7	2.0	1.5	-1.3	-5.2	1.3
Latvia	3.3	6.9	8.0	6.5	7.2	8.7	10.6	12.2	10.0	-4.2	-18.0	-0.3
Lithuania	-1.5	4.1	6.7	6.9	10.2	7.4	7.8	7.8	9.8	2.9	-14.7	1.3
Luxembourg	8.4	8.4	2.5	4.1	1.5	4.4	5.4	5.0	6.6	1.4	-3.6	3.5
Malta	4.1	6.4	-1.6	2.6	-0.3	1.8	4.2	1.9	4.6	5.4	-3.3	3.2
Netherlands	4.7	3.9	1.9	0.1	0.3	2.2	2.0	3.4	3.9	1.9	-3.9	1.8
Poland	4.5	4.3	1.2	1.4	3.9	5.3	3.6	6.2	6.8	5.1	1.6	3.8
Portugal	3.8	3.9	2.0	0.7	-0.9	1.6	0.8	1.4	2.4	0.0	-2.5	1.3
Romania	-1.2	2.1	5.7	5.1	5.2	8.5	4.2	7.9	6.3	7.3	-7.1	-1.3
Slovakia	0.0	1.4	3.5	4.6	4.8	5.1	6.7	8.5	10.5	5.8	-4.8	4.0
Slovenia	5.4	4.4	2.9	3.8	2.9	4.4	4.0	5.8	6.8	3.7	-8.1	1.2
Spain	4.7	5.0	3.6	2.7	3.1	3.3	3.6	4.0	3.6	0.9	-3.7	-0.1
Sweden	4.6	4.4	1.3	2.5	2.3	4.2	3.2	4.3	3.3	-0.6	-5.3	5.7
UK	3.5	3.9	2.5	2.1	2.8	3.0	2.2	2.8	2.7	-0.1	-4.9	1.4
EU15	3.0	3.9	1.9	0.9	0.7	2.2	1.6	3.1	2.8	0.3	-4.1	1.8
EU27	3.0	3.9	2.0	1.2	1.3	2.5	2.0	3.3	3.0	0.5	-4.3	1.8
Iceland	4.1	4.3	3.9	0.1	2.4	7.7	7.5	4.6	6.0	1.4	-6.9	-3.5
Norway	2.0	3.3	2.0	1.5	1.0	3.9	2.7	2.3	2.7	0.7	-1.7	0.3
Russia	6.4	10.0	5.1	4.7	7.3	7.2	6.4	8.2	8.5	5.2	-7.8	4.0
Turkey	-3.4	6.8	-5.7	6.6	4.9	9.4	8.4	6.9	4.7	0.4	-4.5	8.9
Ukraine	-0.2	5.9	8.9	5.3	9.6	12.1	2.8	7.4	7.9	1.9	-14.8	4.2
USA	4.8	4.1	1.1	1.8	2.5	3.5	3.1	2.7	1.9	-0.3	-3.5	3.0

Source: Eurostat, International Monetary Fund, Bureau of Economic Analysis

## Notes:

- n/a: figures not available

## 27. Real Gross Fixed Investment in Housing, annual change, %

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Austria	-2.8	-4.5	-6.8	-4.8	-4.1	0.8	1.4	0.4	1.9	0.8	-4.9	-2.3
Belgium	3.1	-1.1	-2.7	-5.5	3.4	8.1	10.9	6.4	3.4	-0.6	-3.0	-3.6
Bulgaria	n/a	10.7	10.3	19.6	4.8	2.2	56.3	97.3	-7.2	21.3	-16.2	-14.8
Cyprus	1.7	0.5	-0.3	8.0	16.7	17.4	9.6	6.2	7.5	2.6	-8.5	-14.1
Czech Republic	-6.2	0.3	-1.7	-12.4	-7.4	-3.4	-2.0	7.3	24.2	5.2	-14.3	21.8
Denmark	4.3	10.3	-9.3	0.8	11.8	11.9	17.3	9.6	-6.0	-10.9	-16.9	-9.0
Estonia	-5.2	9.3	8.4	25.5	33.5	28.1	39.4	43.5	-3.2	-27.4	-29.2	-3.6
Finland	8.9	6.0	-9.9	-0.1	11.7	11.5	5.4	4.2	0.0	-10.0	-13.1	25.4
France	6.4	1.5	0.8	0.8	2.7	3.1	5.3	6.3	4.5	-2.6	-7.7	n/a
Germany	1.8	-2.5	-5.9	-6.0	-2.0	-3.4	-4.3	6.0	-1.8	-3.5	-2.4	3.5
Greece	n/a	n/a	4.3	15.2	12.1	-1.0	-0.5	31.4	-9.0	-28.2	-23.5	-18.0
Hungary	-7.4	14.8	-27.2	60.2	6.8	12.5	-12.9	-16.6	6.6	-8.0	-11.9	-24.5
Ireland	12.1	8.6	5.1	3.7	13.4	10.8	16.8	3.8	-8.0	-16.0	-38.0	-34.9
Italy	1.4	4.7	1.7	2.5	3.3	2.8	4.9	4.0	0.8	-1.3	-9.0	-2.3
Latvia	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Lithuania	5.8	9.3	-3.6	-10.3	14.4	66.6	0.0	21.2	14.9	24.3	-9.7	-37.1
Luxembourg	-3.3	-1.4	14.6	-14.1	18.3	-1.7	-2.5	18.0	32.0	-0.3	1.9	-0.7
Malta	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Netherlands	2.8	1.6	3.2	-6.5	-3.7	4.1	5.0	5.8	4.7	0.9	-13.6	-10.9
Poland	11.6	10.3	-6.9	7.2	-3.1	4.9	8.8	9.4	12.0	6.5	-4.3	-6.4
Portugal	6.4	5.4	-3.0	-4.2	-17.0	-2.6	-0.3	-7.3	-6.8	-11.6	-15.5	-7.2
Romania	-19.3	67.6	62.4	68.9	20.4	-2.2	35.7	-6.3	50.6	40.9	n/a	n/a
Slovakia	31.5	18.9	-21.0	-1.5	-3.7	-2.8	8.6	-13.7	9.3	11.1	21.2	1.5
Slovenia	3.6	-7.0	-2.7	-3.1	-4.7	9.4	15.7	10.3	14.1	12.4	-20.5	-20.8
Spain	11.4	10.3	7.5	7.0	9.3	5.9	6.1	6.2	2.5	-10.7	-24.5	-16.8
Sweden	13.3	14.8	7.4	11.3	4.3	12.4	11.9	15.5	8.0	-13.1	-22.9	15.5
UK	-3.9	0.1	3.9	7.8	4.4	8.2	1.1	8.4	1.9	-11.1	-23.0	6.4
euro area	3.8	1.3	-1.1	-1.1	1.8	1.9	3.0	5.9	1.0	-5.1	-11.4	-3.5
EU27	3.2	1.7	-0.6	0.3	2.2	3.2	3.3	6.4	1.8	-5.4	-12.9	-2.8
Iceland	0.6	12.8	12.3	12.4	3.7	14.2	11.9	16.5	13.2	-21.9	-55.9	-17.2
Norway	-6.9	-6.3	-0.6	0.1	1.0	8.9	10.6	8.0	12.0	1.4	-4.2	-8.7
Russia	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Turkey	-3.8	6.9	-16.9	12.1	5.9	11.0	12.3	17.8	6.0	n/a	n/a	n/a
Ukraine	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
USA	6.2	0.9	0.5	5.3	8.3	9.8	6.3	-7.5	-18.9	-24.3	-23.2	-3.3

Source: Eurostat, OECD, Bureau of Economic Analysis

### Notes:

- n/a: figures not available

## 28. Harmonised Index of Consumer Prices (HICP), annual change, %

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Austria	0.5	2.0	2.3	1.7	1.3	2.0	2.1	1.7	2.2	3.2	0.4	1.7
Belgium	1.1	2.7	2.4	1.6	1.5	1.9	2.5	2.3	1.8	4.5	0.0	2.3
Bulgaria	2.6	10.3	7.4	5.8	2.3	6.1	6.0	7.4	7.6	12.0	2.5	3.0
Cyprus	1.1	4.9	2.0	2.8	4.0	1.9	2.0	2.3	2.2	4.4	0.2	2.6
Czech Republic	1.8	3.9	4.5	1.4	-0.1	2.6	1.6	2.1	3.0	6.3	0.6	1.2
Denmark	2.1	2.7	2.3	2.4	2.0	9.0	1.7	1.9	1.7	3.6	1.1	2.2
Estonia	3.1	3.9	5.6	3.6	1.4	3.0	4.1	4.5	6.7	10.6	0.2	2.7
Finland	2.9	2.7	2.0	1.3	0.1	0.8	0.8	1.3	1.6	3.9	1.6	1.7
France	0.6	1.8	1.8	1.9	2.2	2.3	1.9	1.9	1.6	3.2	0.1	1.7
Germany	0.7	1.4	1.8	1.4	1.0	1.8	1.9	1.8	2.3	2.8	0.2	1.2
Greece	2.1	2.9	3.7	3.9	3.4	3.0	3.5	3.3	3.0	4.2	1.3	4.7
Hungary	10.0	10.0	9.1	5.2	4.7	6.8	3.5	4.0	7.9	6.0	4.0	4.7
Ireland	2.5	5.3	4.0	4.7	4.0	2.3	2.2	2.7	2.9	3.1	-1.7	-1.6
Italy	1.7	2.6	2.3	2.6	2.8	2.3	2.2	2.2	2.0	3.5	0.8	1.6
Latvia	2.1	2.6	2.5	2.0	2.9	6.2	6.9	6.6	10.1	15.3	3.3	-1.2
Lithuania	1.5	1.1	1.6	0.3	-1.1	1.2	2.7	3.8	5.8	11.1	4.2	1.2
Luxembourg	1.0	3.8	2.4	2.1	2.5	3.2	3.8	3.0	2.7	4.1	0.0	2.8
Malta	2.3	3.0	2.5	2.6	1.9	2.7	2.5	2.6	0.7	4.7	1.8	2.0
Netherlands	2.0	2.3	5.1	3.9	2.2	1.4	1.5	1.7	1.6	2.2	1.0	0.9
Poland	7.2	10.1	5.3	1.9	0.7	3.6	2.2	1.3	2.6	4.2	4.0	2.7
Portugal	2.2	2.8	4.4	3.7	3.3	2.5	2.1	3.0	2.4	2.7	-0.9	1.4
Romania	45.8	45.7	34.5	22.5	15.3	11.9	9.1	6.6	4.9	7.9	5.6	6.1
Slovakia	10.4	12.2	7.2	3.5	8.4	7.5	2.8	4.3	1.9	3.9	0.9	0.7
Slovenia	6.1	8.9	8.6	7.5	5.7	3.7	2.5	2.5	3.8	5.5	0.9	2.1
Spain	2.2	3.5	2.8	3.6	3.1	3.1	3.4	3.6	2.8	4.1	-0.2	2.0
Sweden	0.6	1.3	2.7	2.0	2.3	1.0	0.8	1.5	1.7	3.3	1.9	1.9
UK	1.4	0.8	1.2	1.3	1.4	1.3	2.1	2.3	2.3	3.6	2.2	3.3
euro area	1.1	2.1	2.3	2.2	2.1	2.1	2.2	2.2	2.1	3.3	0.3	1.6
EU27	3.0	3.5	3.2	2.5	2.1	2.3	2.3	2.3	2.4	3.7	1.0	2.1
Iceland	2.1	4.4	6.6	5.3	1.4	2.3	1.4	4.6	3.6	12.8	16.3	7.5
Norway	2.1	3.0	2.7	0.8	2.0	0.6	1.5	2.3	0.7	3.4	2.3	2.3
Russia	85.7	20.8	21.5	15.8	13.7	10.9	12.7	9.7	9.0	14.1	11.7	6.9
Turkey	61.4	53.2	56.8	47.0	25.3	10.1	8.1	9.3	8.8	10.4	6.3	8.6
Ukraine	22.7	28.2	11.9	0.7	5.2	9.0	13.5	9.1	12.8	25.2	15.9	9.4
USA	2.0	3.4	2.4	0.9	2.3	2.7	3.7	3.2	2.6	4.4	-0.8	2.4

Source: Eurostat, IMF

**Notes:**

- n/a: figures not available
- Please note that for non-EU countries the national Consumer Price Indices are given, which are not strictly comparable with the HICPs.



## 29. Population, thousand inhabitants

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Austria	7,982	8,002	8,021	8,064	8,100	8,143	8,201	8,254	8,283	8,319	8,355	8,375
Belgium	10,214	10,239	10,263	10,310	10,356	10,396	10,446	10,511	10,585	10,667	10,753	10,840
Bulgaria	8,230	8,191	8,149	7,891	7,846	7,801	7,761	7,719	7,679	7,640	7,607	7,564
Cyprus	683	690	698	706	715	730	749	766	779	789	797	803
Czech Republic	10,290	10,278	10,267	10,206	10,203	10,211	10,221	10,251	10,287	10,381	10,468	10,507
Denmark	5,314	5,330	5,349	5,368	5,384	5,398	5,411	5,427	5,447	5,476	5,511	5,535
Estonia	1,379	1,372	1,367	1,361	1,356	1,351	1,348	1,345	1,342	1,341	1,340	1,340
Finland	5,160	5,171	5,181	5,195	5,206	5,220	5,237	5,256	5,277	5,300	5,326	5,351
France	60,159	60,545	60,979	61,424	61,864	62,292	62,773	63,230	63,645	64,007	64,369	64,716
Germany	82,037	82,163	82,260	82,440	82,537	82,532	82,501	82,438	82,315	82,218	82,002	81,802
Greece	10,861	10,904	10,931	10,969	11,006	11,041	11,083	11,125	11,172	11,214	11,260	11,305
Hungary	10,253	10,222	10,200	10,175	10,142	10,117	10,098	10,077	10,066	10,045	10,031	10,014
Ireland	3,732	3,778	3,833	3,900	3,964	4,029	4,112	4,208	4,313	4,401	4,450	4,468
Italy	56,909	56,924	56,961	56,994	57,321	57,888	58,462	58,752	59,131	59,619	60,045	60,340
Latvia	2,399	2,382	2,364	2,346	2,331	2,319	2,306	2,295	2,281	2,271	2,261	2,248
Lithuania	3,536	3,512	3,487	3,476	3,463	3,446	3,425	3,403	3,385	3,366	3,350	3,329
Luxembourg	427	434	439	444	448	455	461	469	476	484	494	502
Malta	379	380	391	395	397	400	403	405	408	410	414	413
Netherlands	15,760	15,864	15,987	16,105	16,193	16,258	16,306	16,334	16,358	16,405	16,486	16,575
Poland	38,667	38,654	38,254	38,242	38,219	38,191	38,174	38,157	38,125	38,116	38,136	38,167
Portugal	10,149	10,195	10,257	10,329	10,407	10,475	10,529	10,570	10,599	10,618	10,627	10,638
Romania	22,489	22,455	22,430	21,833	21,773	21,711	21,659	21,610	21,565	21,529	21,499	21,462
Slovakia	5,393	5,399	5,379	5,379	5,379	5,380	5,385	5,389	5,394	5,401	5,412	5,425
Slovenia	1,978	1,988	1,990	1,994	1,995	1,996	1,998	2,003	2,010	2,010	2,032	2,047
Spain	39,803	40,050	40,477	40,964	41,664	42,345	43,038	43,758	44,475	45,283	45,828	45,989
Sweden	8,854	8,861	8,883	8,909	8,941	8,976	9,011	9,048	9,113	9,183	9,256	9,341
UK	58,580	58,785	59,000	59,216	59,435	59,697	60,039	60,410	60,781	61,192	61,595	62,008
EU15	313,006	314,098	315,413	316,972	318,909	320,930	323,028	324,584	326,561	328,484	329,990	330,928
EU27	481,618	482,768	483,797	484,635	486,646	488,798	491,135	493,210	495,292	497,686	499,705	501,106
Iceland	276	279	283	287	288	291	294	300	308	315	319	318
Norway	4,445	4,478	4,503	4,524	4,552	4,577	4,606	4,640	4,681	4,737	4,799	4,858
Russia	145,600	146,300	146,300	145,200	145,000	144,200	142,800	142,200	142,000	141,900	141,900	140,367
Turkey	65,787	66,889	67,896	68,838	69,770	70,692	71,610	72,520	69,689	70,586	71,517	72,561
Ukraine	49,545	49,115	48,664	48,241	47,823	47,442	47,101	46,749	46,466	46,192	45,936	45,706
USA	279,328	282,418	285,335	288,133	290,845	293,502	296,229	299,052	302,025	304,831	307,483	310,106

Source: Eurostat, IMF, US Bureau of Census

### Notes:

- n/a: figures not available

# Annex: Explanatory Note on data

## Macroeconomic data

Macroeconomic data on GDP, inflation, unemployment and population are mainly from Eurostat. They are from the International Monetary Fund, OECD and from the Bureau of Economic Analysis (for the USA) when not provided by Eurostat.

## Mortgage Markets data

*Residential mortgage lending outstanding:* Total residential loans on lenders' books at the end of the period. Residential loans are loans for the purchase of a private property which can be secured or not secured on the residential property. For instance, not all countries secure residential loans on the property. For example, in Belgium and France loans for house purchase are guaranteed with personal sureties. This definition is, however, still not complete. Second mortgages or other transactions to increase mortgage debt for consumption or improvement of a residential property may be for some countries also included in the definition.

*Gross residential lending:* Total amount of residential loans advanced during the period. It corresponds to the amount of new mortgage lending which is issued over the period and therefore is often dubbed in the text as "new lending".

*Net residential lending:* It refers to the new residential loans advanced during the period minus repayments. It also corresponds to the change in outstanding mortgage loans at the end of the period.

## Representative Interest Rates

*euro area "typical mortgage rate":* please note that this mortgage interest rate which is reported in each of the country report tables is the year-end variable mortgage rate which is applied in the euro area (Source: ECB). This is used as a proxy for a European average mortgage rate, since it would be misleading to produce an average mortgage rate by using a simple average of national typical mortgage rates.

National definitions of interest rates used, where available, are the following:

**AT:** APRC on new loans for house purchase to households;

**BE:** Long-term initial fixed period interest rate, 10 years or more maturity;

**BG:** year-end interest rate on long-term loans to households for house purchase;

**CY:** Interest rate on housing loans secured by assignment of life policy;

**DK:** Adjustable mortgage interest rate (mortgage rate referenced to 6-month CIBOR);

**EE:** Weighted average of the annual interest rate on housing loans granted to households for new EUR denominated loans;

**FR:** Fixed average rate of secured loans "PAS" with a maturity of 12 and 15 years;

**DE:** Loans with an initial fixed period interest rate (5 to 10 years);

**GR:** Reviewable interest rate after a fixed term of 1 year;

**HU:** Variable or initial fixed rate up to 1 year (CHF-denominated);

**IE:** Variable interest rate (where the fixed-rate term is  $\leq 1$  year);

**IT:** Variable interest rate on a loan of EUR 100,000 with a maturity of 20 years;

**LV:** Variable interest rate on new EUR denominated loans to households ( $\leq 1$  year);

**LT:** Variable interest rate on new EUR denominated loans to households ( $\leq 1$  year);

**LU:** Variable interest rate ( $\leq 1$  year);

**MT:** Interest rate on loans for house purchase to households and individuals;

**NL:** Interest rate on total new lending for house purchase, fixed rate from 5 to 10 years;

**PL:** Variable interest rate ( $\leq 1$  year);

**PT:** The variable interest rate indexed to Euribor ( $\leq 1$  year);

**SI:** APRC on new loans for house purchase to households in domestic currency;

**ES:** Effective average interest rate not including costs during the first period of the loan. The interest rate usually floats every 6 or 12 months, according to an official reference rate for mortgages secured on residential property;

**SE:** Variable interest rate ( $\leq 1$  year);

**UK:** The average mortgage rate charged on all regulated mortgage contracts except lifetime mortgages newly advanced in the period. This interest rate is an average rate for fixed and variable rate products.

**US:** Representative interest rate on 30-year new mortgage loans (conventional 30-year)



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