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HYPOSTAT 2016 A REVIEW OF EUROPE'S MORTGAGE AND HOUSING MARKETS

EUROPEAN MORTGAGE FEDERATION

Disclaimer

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Note: The views and positions expressed in this publication are of the authors alone, and should not be interpreted as necessarily being those of the institutions to which they are affiliated.

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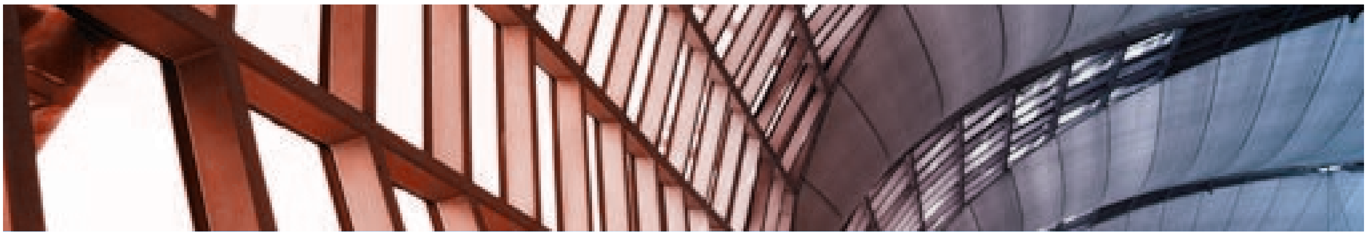


Foreword

Dear Reader,

We are delighted to present you the 2016 edition of Hypostat, the EMF-ECBC's statistical publication on European housing and mortgage markets. Since the publication of the first edition in 1998, Hypostat has established itself as an industry benchmark for quantitative and qualitative analysis in this area. It is a result of intense cooperation between financial market analysts, national banking associations and the most eminent mortgage and housing market experts in Europe. Hypostat brings together over 30 contributors, commenting on historical annual series for 30 indicators, covering, where data is available, the 28 Member States of the European Union and beyond. In this year's edition we are delighted to present some new statistics, such as the House Price Index for a series of cities as well as data on average mortgage loan advanced to prospective homeowners, which further enrich the studies of the housing and mortgage market. The country chapters of our publication offer the most comprehensive and accurate source of data available on the respective markets and outline developments observed over the past year.

The quantitative analysis presented in this publication aims to capture the trends and attitudes of European lenders and borrowers and highlights some of the driving forces of housing and mortgage markets. Mortgage credit remains one of the major contributors to real economic growth. Furthermore, given its fundamental role in facilitating access to homeownership, it plays a vital role in the socio-economic life of citizens of the old continent, the purchase of a house representing one of the most significant acquisitions individuals will ever make. In addition, mortgage and housing markets are deeply influenced by demographic developments, which ultimately decide where, how much and what types of dwellings need to be built in the medium to long term.

Besides a general analysis of European mortgage and housing markets, Hypostat includes external articles focusing on significant topics which have an impact on these markets. In 2015, Europe witnessed the most significant influx of asylum seekers and immigrants since the end of World War II. This development is certainly already affecting the housing markets of the target countries and needs to be further explored by the industry. In this edition, we contribute to this discussion by presenting an article on the impact of the migratory influx on the German housing market.

Our second external article, in the spirit of looking forward, presents the clear role the housing and mortgage industry can play in the coming years in the very important, ongoing debate on energy efficiency. Bearing in mind that in the EU both residential and commercial buildings are responsible for 40% of energy consumption, we take the opportunity to present the Energy Efficient Mortgage Initiative launched by a consortium led by the EMF-ECBC, which aims to design an "energy efficiency label" for mortgages, based on certain energy performance indicators. Furthermore, we propose a comparative overview on how some countries outside Europe are dealing with the energy efficiency dimension in the housing market in order to grasp the global scope of this challenge in which the mortgage industry can provide a significant added value.

Foreword

The EMF-ECBC, also on behalf of the EMF Statistics Committee and its Chairman, Kaare Christensen, would like to thank all contributors for making the publication of Hypostat possible and expresses its gratitude to the contributors for their special effort in anticipating the release date to September, thus increasing the timeliness and consequently the value of the analyses and of the data. We hope you will find this publication interesting and useful.

Sincerely,

Luca BERTALOT
EMF-ECBC Secretary General

Key Facts

Macroeconomic Situation

- The European Union produced a positive GDP growth of 2.0% in 2015, thus continuing the positive progress of 2014 (1.4%). The euro area registered a growth of 1.7% in 2015. Against this background, for the first time since the beginning of the financial crisis, the aggregate Debt-to-GDP ratio in the EU and the euro area decreased by more than 1.6 pps and 1.5 pps respectively with respect to the previous year.
- Overall, low oil prices, a low euro exchange rate, a supportive monetary policy as well as improved consumer expenditure due to increased disposable income contributed positively to the growth in 2015. Governments in some Member States continued loosening the fiscal consolidation policies adopted in the aftermath of the financial crisis.
- Despite the aggregate economic growth, a level of fragmentation remains in the EU in terms of GDP growth. However, this trend has eased in the last few years due to an improved economic environment in the EU.
- EU countries improved their performance in terms of GDP growth. Every country except Greece, which had a marginal contraction of 0.2%, expanded their economies in 2015. The patterns were very heterogeneous, with Ireland and Malta advancing by more than 7% and 6% respectively, while the majority of economies grew by between 1% and 2%.
- Unemployment went down in the EU by -0.8 pps y-o-y. However, the picture across the EU remains very fragmented.
- Inflation continued to decrease across the EU, with the Harmonised Index of Consumer Prices in the euro area and the EU as a whole reaching a virtual standstill of 0%.

Housing Market

- House prices in aggregate terms continued the positive trend of the previous year with some exceptions. The situation among different jurisdictions remained highly fragmented, with some markets recovering, while others continued to decline. Nonetheless, the rate of decline seems to have slowed down across the board.
- Price developments are not only very heterogeneous between the different EU countries, but also within them. House price increases in capital cities were on average more than 10 pps higher compared to the overall situation in their countries. At one end of the spectrum, house prices in Vienna increased by nearly 60 pps more than in the rest of Austria, whereas in countries such as Bulgaria, house prices in the capital showed a decrease of more than 10 pps compared to the rest of the country.
- Housing supply (as measured by the number of building permits issued, housing projects begun and housing projects completed) remained roughly around the level of 2009. Building permits show timid signs of increase in the last two years.

Mortgage Markets

- The rate of mortgage lending accelerated in 2015. Total outstanding lending in the EU surpassed in 2015 for the first time EUR 7 trillion, increasing by 3.5% y-o-y from EUR 6.7 trillion in 2014. The euro area contribution was 1.5%, whereas the non-euro countries grew by 7.6%.
- The mortgage market is strongly characterised by five countries: the UK, Germany, France, the Netherlands and Spain accounted for 74% of the overall outstanding residential mortgages in the EU in 2015.
- Some countries contributed more than others to the increase in EU outstanding residential mortgage lending. The UK delivered an impressive 50% of the y-o-y growth; however, this result was strongly influenced by the EUR slump versus GBP.
- Interest rates on mortgage loans either continued to decrease or maintained the very low interest levels of the previous years in the EU as a reaction to the expansionary monetary policy stance of the ECB and other central banks in the EU, although some timid signs of marginal rebounds have been seen in a number of countries over the course of 2015.
- In 2015, the ECB maintained a reference rate of 0.05% which was lowered to 0% in March 2016, in line with the overall continental trend.

Note

Hypostat, published by the European Mortgage Federation – European Covered Bond Council (EMF-ECBC), presents annual statistics on EU mortgage and housing markets, as well as data and information on a number of non-EU countries. The present edition, “Hypostat 2016”, focuses on developments till early 2016[1].

In the Statistical Tables, data is presented in EUR. This may, however, introduce exchange rate distortions for countries outside the euro area. Please see the exchange rates used in this edition in Table 30 of the Statistical Tables section. Finally, although Hypostat aims to publish consistent data across countries and over time, not all data can be fully compared between countries, owing to some methodological differences present at the source. The EMF-ECBC strives, through Hypostat, to provide a comprehensive and comparable source of data and information on the mortgage and housing markets of the EU (and beyond). For further information on the definitions and sources used, please refer to the Annex: “Explanatory Note on Data”.

Please note that:

- Date: “Q1 2015” stands for “the first quarter of 2015”;
- Diminutive: “bps” stands for “basis points”; “DTI” stands for “debt-to-income”; “LTI” stands for “loan-to-income”; “LTV” stands for “loan-to-value”; “EC” stands for “European Commission”; “EP” stands for “European Parliament”; ”EU” stands for “European Union”; “NPL” stands for “non-performing loans” and “pps” for percentage points;
- Variation: “q-o-q” stands for “quarter-on-quarter”; “h-o-h” stands for “half-on-half” and “y-o-y” stands for “year-on-year”.

[1] Please note that the edition presenting developments in housing and mortgage markets till early 2012 is titled “Hypostat 2011”; the edition immediately following that, and focusing on developments until early 2013 is “Hypostat 2013, therefore, due to a change in the naming, there is no “Hypostat 2012”.

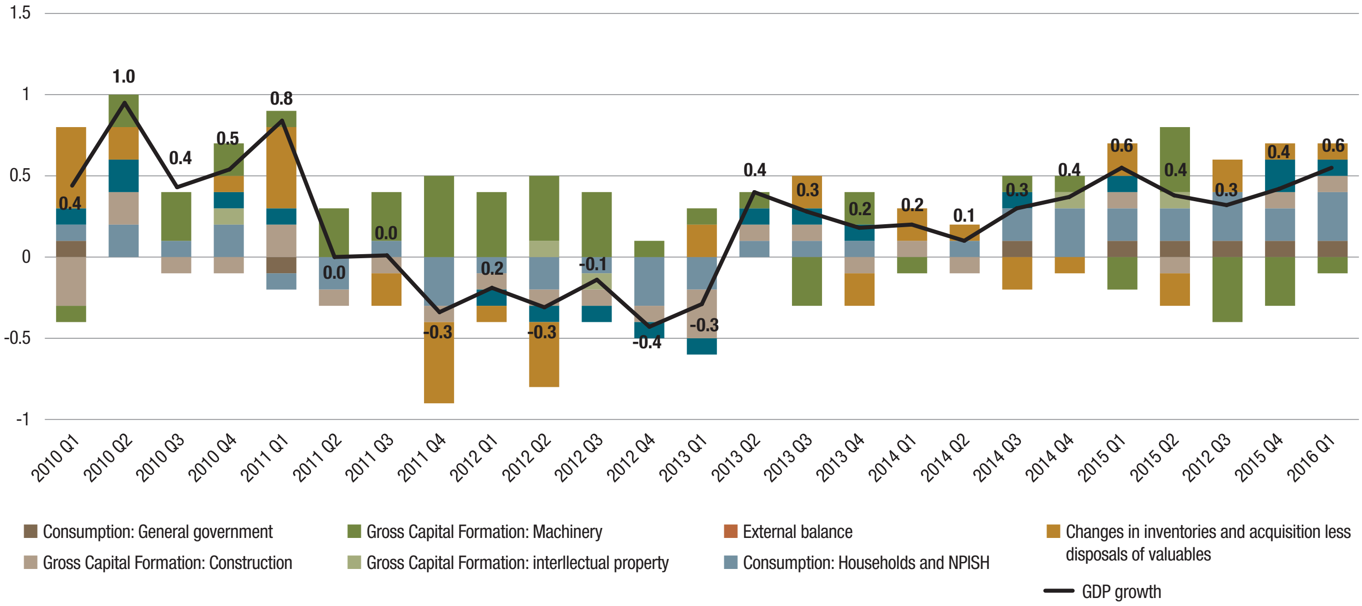
Housing and Mortgage Markets in 2015

1. Macroeconomic Overview

In 2015 the European economy continued to modestly grow at 2.0% y-o-y especially benefitting from a series of favourable factors such as low oil prices, a low euro exchange rate and supportive monetary policy measures by the ECB and the other Central Banks. Moreover, in light of the inflow of asylum seekers, some countries increased public expenditures which provided significant support to the economy. As depicted in Chart 1 a significant proportion of last year's growth can be attributed to consumers which are driving the economy due to job growth and rising disposable income. Governments also continued to increase their expenditure thus supporting overall growth as depicted in Chart 2. It should be highlighted here that the relatively stronger growth figures led to an overall aggregate deleveraging of public finances, resulting for the first time since the start of the global financial crisis in a decrease from 88.5% to 86.8% to GDP. Lately, however, the downturn in emerging economies and more recently in major advanced economies has slowed the growth momentum worldwide, causing a decrease in international trade which in a nutshell results in a moderate growth path in the EU.

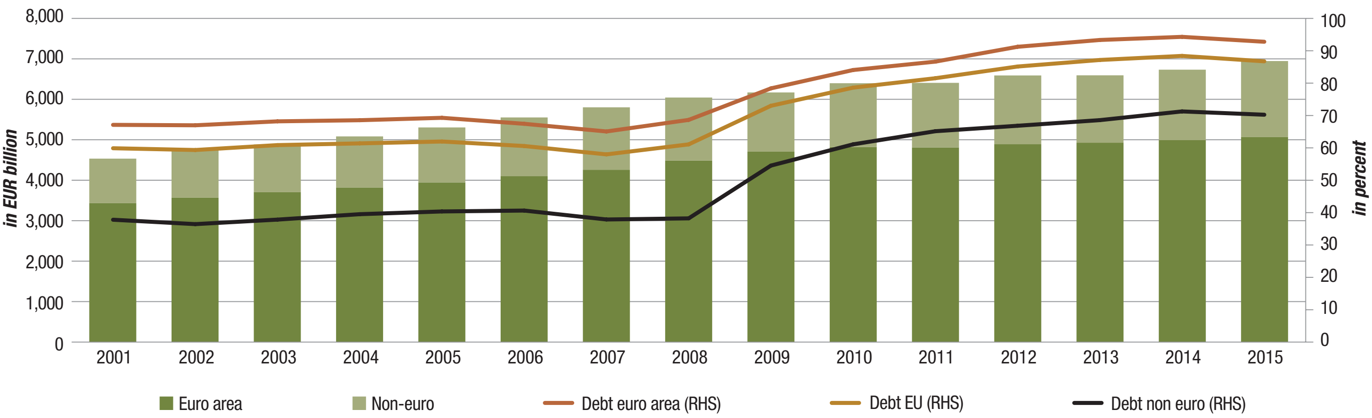
The picture is more complex when looking at more disaggregated data as shown in Chart 3. On a positive note, nearly all EU countries experienced positive growth/unemployment evolution in 2015. This can also be observed in the north-west development of the aggregate EU figure from 2014 to 2015 displayed in Chart 3, and also by the absence of any country in the fourth quadrant of the Chart (decreasing GDP and increasing unemployment). Only Greece recorded a small contraction of 0.2%, but it managed to reduce unemployment by more than 1.5% and the forecasts for the 2016 indicate moderate economic expansion. At the other end of the scale, Finland saw an increase in its unemployed workforce by more than 50 bps, caused by a mismatch in demand and supply across its regions. Interestingly, notwithstanding a commanding GDP increase of 4.8% y-o-y, Luxembourg, too, experienced a similar unemployment increase in 2015, which can be explained by cross border workers taking the most advantage of the economic expansion, leaving the local workforce worse off with respect to 2014. The country which experienced the highest GDP increase was Ireland, which also reduced its unemployment rate by nearly 2 pps. The remarkable economic rebound of the Celtic tiger after its severe recession in the aftermath of the financial crisis can be ascribed to the ambitious reform plan initiated under

CHART 1 ▶ Quarterly contributors to GDP in the Euro area, percent



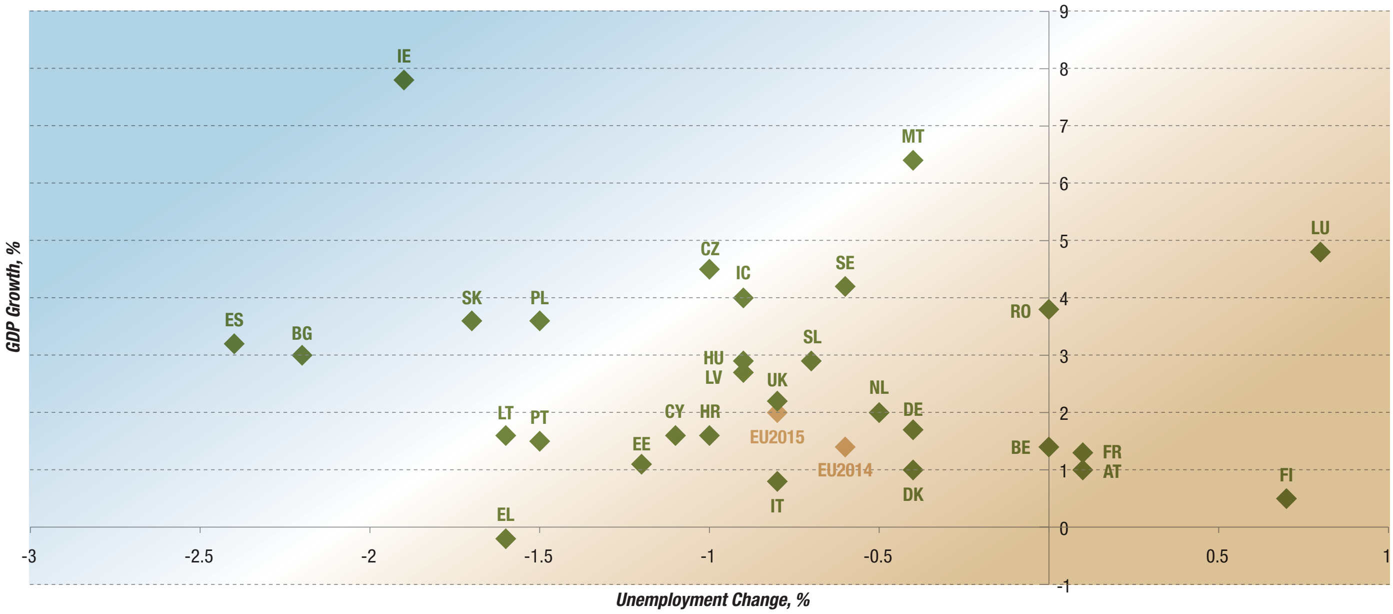
Source: Statistics Data Warehouse - ECB

CHART 2 ▶ Government spending evolution in the euro area and in the non-euro area members



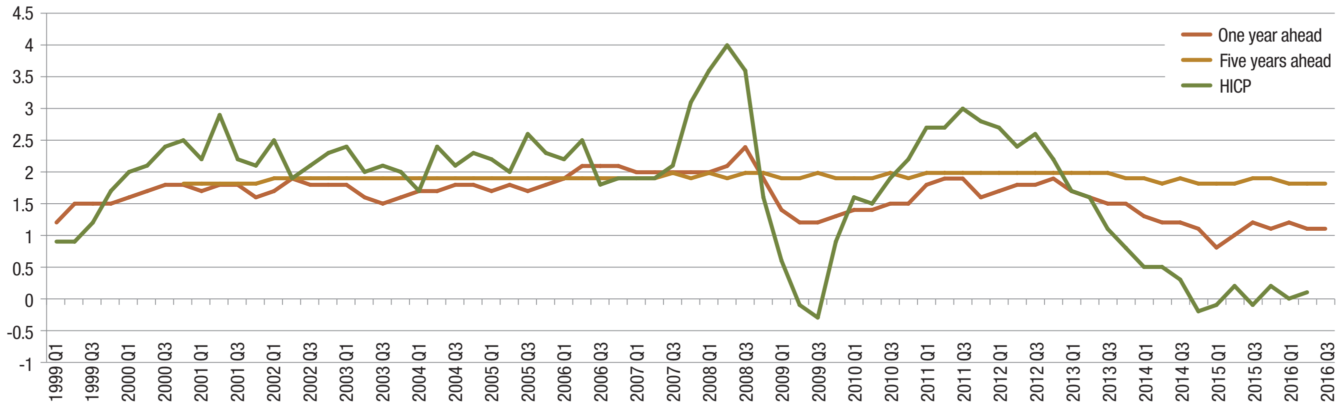
Source: Statistics Data Warehouse - ECB

CHART 3 ▶ Unemployment change and GDP growth in 2015 in percent



Source: Eurostat

CHART 4 ▶ HICP and inflation expectations one and five years ahead in the euro area, as measured by the ECB, in percent



Source: European Central Bank

the IMF programme of financial assistance and the successful implementation and ownership by the Irish authorities. Spain managed to reduce its unemployment rate by nearly 2.5 pps, helped by the labour market reforms of the previous years, which increased flexibility and dampened wage increases. Despite the latter representing the largest reduction in the EU, 1 out of 5 people in Spain is still actively looking for a job, the highest number in the EU. Italy managed to expand its GDP in 2015, albeit timidly, and to decrease unemployment by nearly 1 pp. In France, the labour market is still at a virtual standstill, although the economy grew in 2015. This could be set to change in 2016, however, further to a new labour law making it easier for employers to hire and fire staff passed by special decree in the parliament.

Inflation in the Euro Area came to a practical standstill in 2015. The Harmonised Index of Consumer Prices (HICP) has remained stubbornly around 0% since the end of 2014. Notwithstanding the ever more aggressive expansionary policy moves from the ECB, which beefed up its Quantitative Easing programme with corporate bond purchases in Q1 2016, the inflation forecast has at best stabilised in the one year ahead survey to a little more than 1%. In the medium term, it might be optimistic to expect that the ECB target of approaching 2% inflation rate from the lower bound will be reached.

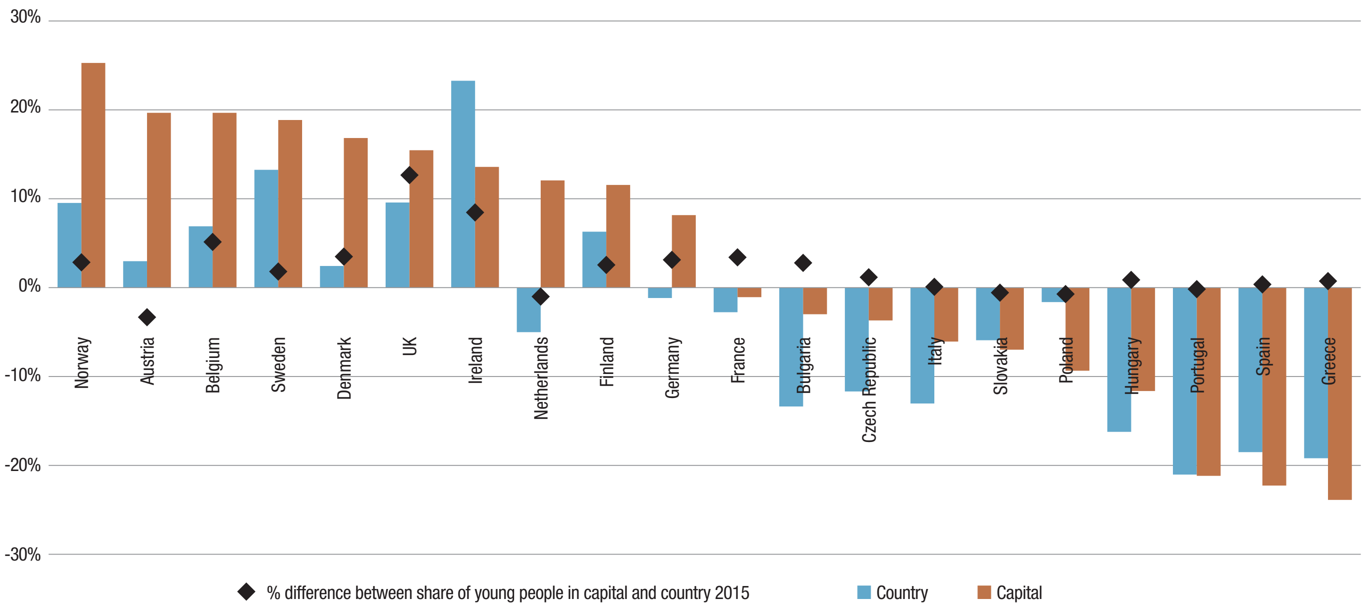
2. Housing Markets

2.1. Setting the scene – demographic trends in Europe

It is well known that housing markets are some of the most pro-cyclical markets in the economy. If the economy is working well, so are house prices. One of the most important factors which underpins economic growth in the long run is demography, which, in turn, will also have a fundamental impact on the housing markets of the future. With this in mind, this section is dedicated to some considerations on the demographic patterns on the old continent, showing first of all that the pictures is very heterogeneous between core countries and the periphery and between cities and the country side.

[1] For Germany the city indicator is an aggregate for Berlin, Hamburg and Munich in order to provide a comparable picture with Chart 7.

CHART 5 ▶ % growth of 20-35 year old population between 2006-2015[2], ordered by the highest % growth in the capital city



Source: Eurostat, National Statistics Institutions, author's calculation

Most EU countries are facing demographic challenges and, except for some hot spots such as the mostly economic thriving cities and regions, most areas are experiencing a decreasing population trend. Among the various statistics which can be shown, the following depicted in Chart 5 show the percentage growth of young adults between 20 and 35 years both for the country as a whole and for its capital city[1] in 2006 and 2015. This age bracket is particularly interesting in that it represents the most active and economically vital age class, which is about to or has just begun to take the first step on the home ownership ladder. This chart shows that the EU capital cities and their countries as a whole have faced a different evolution in the last decade and five different stories emerge. Firstly there are cities like London or Brussels to which young people are strongly drawn and also the respective countries find themselves with more young people in 2015 than in 2006. There are other cities such as Amsterdam or the German cities, which have more young people now than in 2006, but the Netherlands and Germany saw their share of youngsters slightly decrease over the period, which can be explained by internal migration[3]. A different picture is apparent in Ireland which saw an increase in the young population, although this trend was less marked in Dublin with respect to the rest of the country. Countries such as Italy and those from Central and Eastern Europe had more young people in 2006 than in 2015, but the capital cities faced a smaller decline with respect to the rest of the country which may be explained by the attraction for domestic youngsters of their capital city. Lastly, countries most severely hit by the crisis such as Spain, Greece and Portugal, saw a massive decrease in their young population over the last decade and even more in their respective capital cities, highlighting the fact that the more urban young population took advantage of the free movement within Europe to exit more quickly from the challenging conditions at home. This same pattern can also be observed in Poland, where the young population, notwithstanding the relatively positive economic performance during the last decade, decreased especially in Warsaw, which can possibly be explained by the strong attraction of especially the British and German markets.

When looking at the EU's housing markets in 2015, consideration also needs to be given to the extraordinary influx of immigrants to the old continent due to the significant and persistent turmoil in the Middle East, which made 2015 the year with the highest number of displaced persons worldwide since World War II. The stream of people entering the EU has not been – and is not – homogeneous and some countries in particular, notably Germany, Austria, Hungary and the Scandinavian countries, are more exposed to the phenomenon as can be seen on Chart 6, which depicts the number of asylum seekers per 100,000 inhabitants. As further gateways to the EU, Italy and Greece are also feeling the weight of the influx of migrants, which is not captured here in the chart as only official refugees are taken into account in the statistics. In any case, it is clear that, in addition to the already pressing challenges in the housing market for some jurisdictions, huge numbers of desperate people fleeing from war and hoping to start a new life in Europe must also be taken into account. This topic will be discussed in more detail in the next article in this edition of Hypostat which focusses on the challenges Germany is going to face in the housing market in light of last year's extraordinary migratory influx of more than 1 million people.

2.2. Trends in house prices

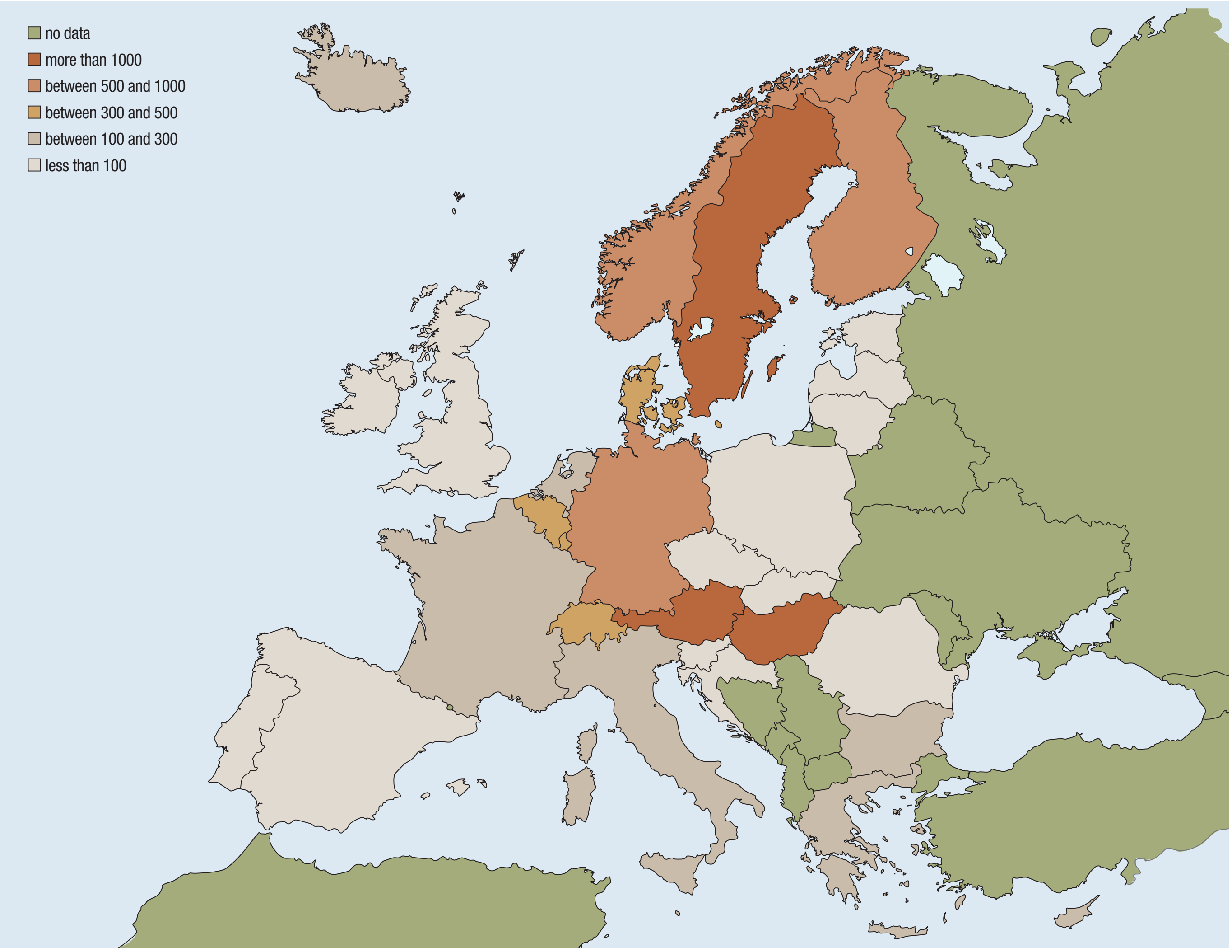
2.2.1. Cross-country observations

As seen in the previous section different cities and countries are subject to different demographic challenges which are reflected in the heterogeneous house price evolution over the last years (See Chart 7). Purely on the basis of cross country observation, it is possible to note that nearly all countries saw their house prices increase in 2015. Hungary recorded a significant increase of 17.7% y-o-y, which confirms the upward trend started in 2014 and which signalled a return to pre-crisis price levels. In Germany, house prices have been accelerating in recent years and increased by nearly 4.5% y-o-y in 2015. The Swedish and the British markets continue to be buoyant, with house prices in the former accelerating by 10.8% y-o-y in 2015 from 6.8% the year before and in the latter increasing by 7.1% in 2015, albeit at a slower rate than in 2014 (10.0%). Finally, in countries where house prices have been falling in recent years such as Cyprus, France, Greece and Italy, there were signs of deceleration and of an upcoming reversal in trend.

[2] For some countries the reference years are different (DK: 2008-2015; ES: 2005-2014; IE: 2002-2011; IT: 2004-2014; NL 2004-2013, PL: 2006-2013; PL; 2004-2014; PT, NO: 2003-2014)

[3] It is important to bear in mind that the population statistics are determined at the 1st January of the reference year. Especially for countries like Germany and the Netherlands 2015 showed a massive influx of principally young refugees from the war-torn Middle East.

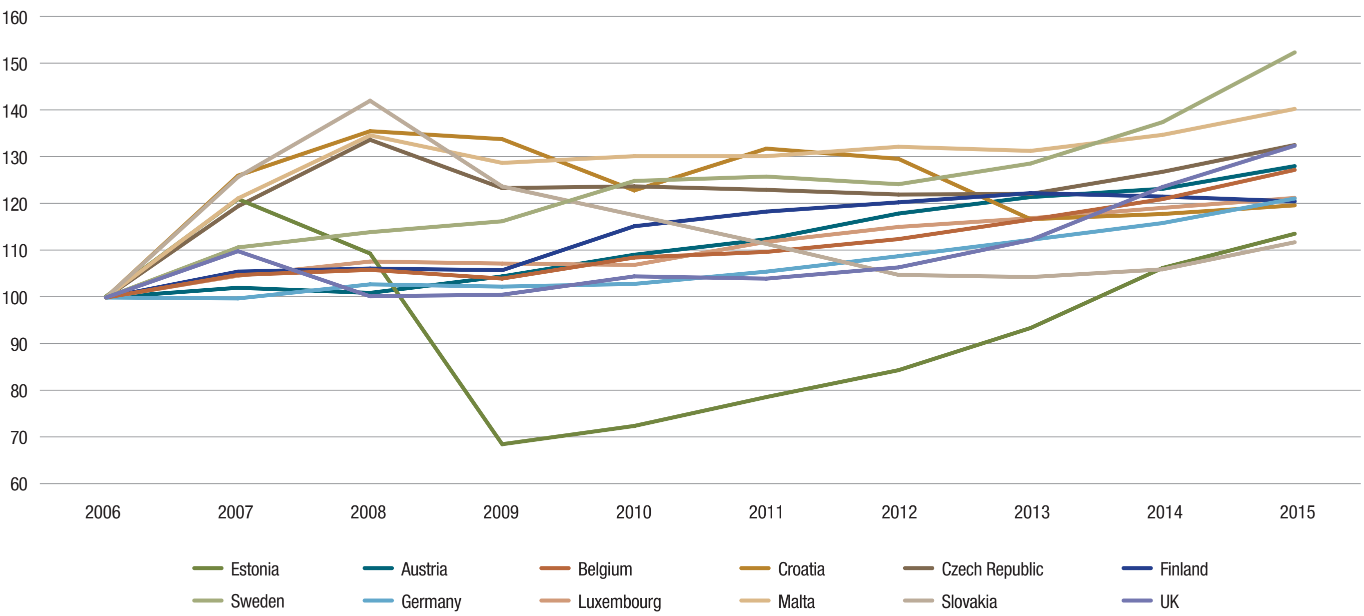
CHART 6 ▶ Map of number of asylum seekers every 100,000 inhabitants



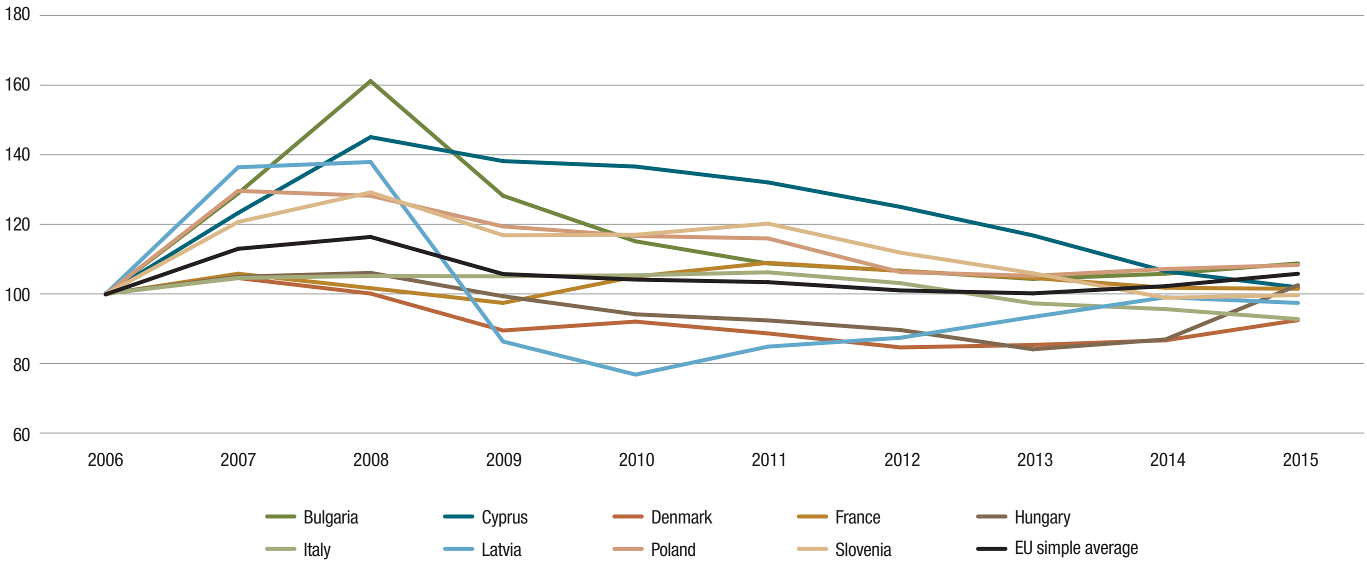
Source: Eurostat

CHART 7 ▶ Countries where house prices were, in 2015

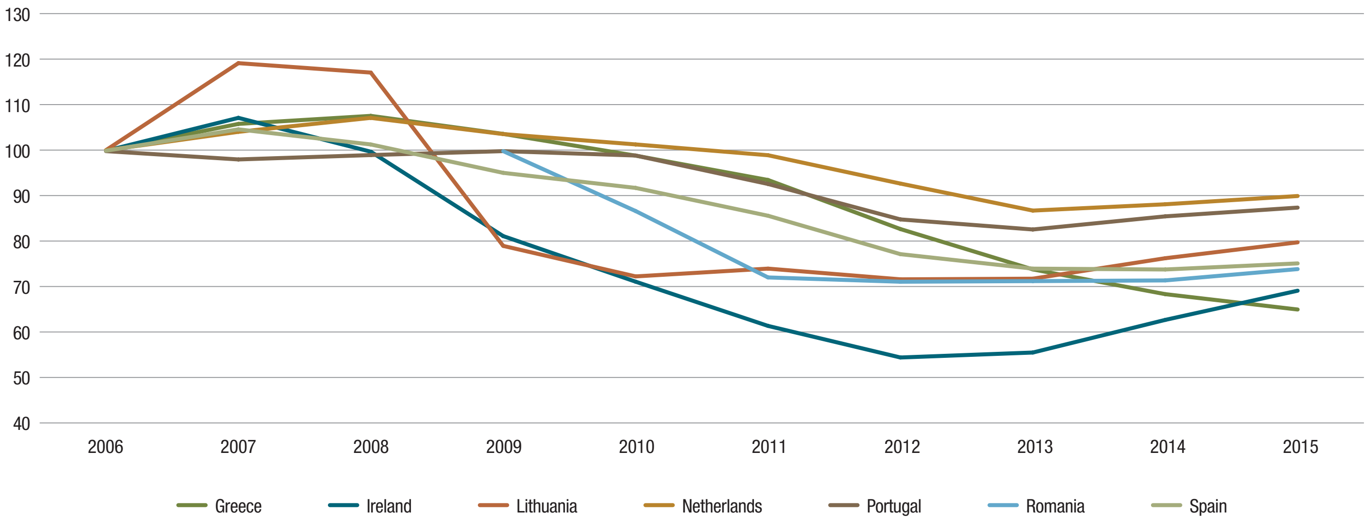
COUNTRIES WHERE HOUSE PRICES WERE, IN 2015, AT LEAST 10% ABOVE 2006 LEVELS



COUNTRIES WHERE HOUSE PRICES WERE, IN 2015, AROUND 2006 LEVELS



COUNTRIES WHERE HOUSE PRICES WERE, IN 2015, AT LEAST 10% BELOW 2006



Source: European Mortgage Federation

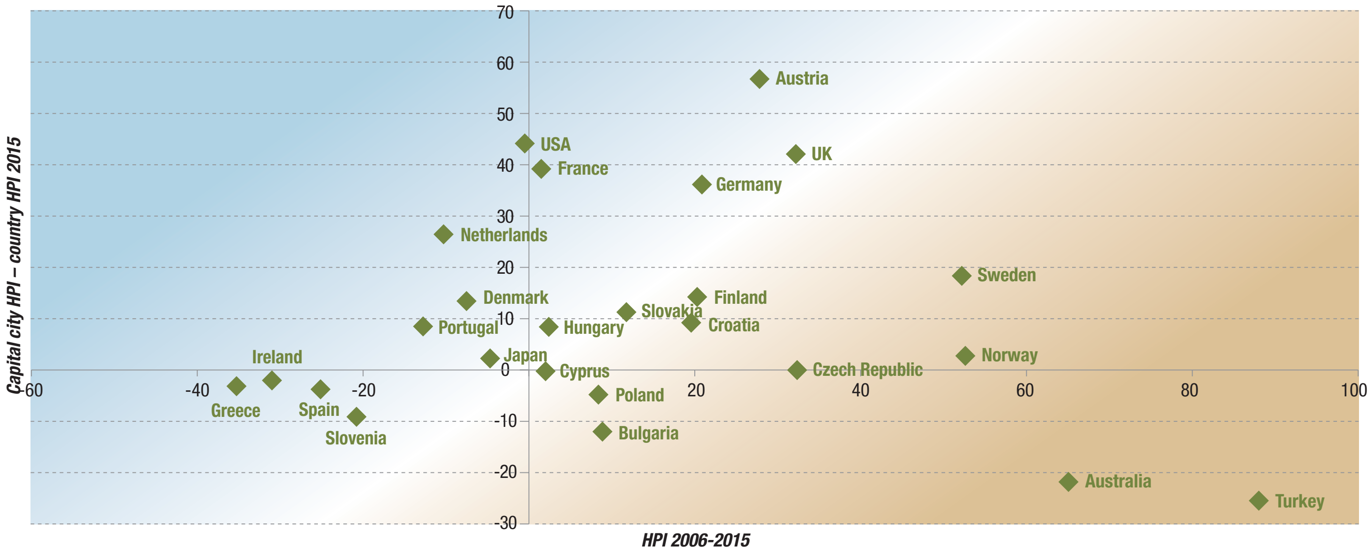
2.2.2. Comparisons between the cities and the relative countries

If at cross country level the picture shows a slow general upwards trend, the picture within countries once again displays quite different situations which resembles in part what was described in the demographic section above. This year Hypostat presents a new set of statistics looking at the House Price Indexes (HPI) of important cities. These are displayed in Chart 8 and Chart 9. Chart 8 depicts the evolution of HPI in countries from 2006[4] to 2015 compared to the HPI evolution in their capital cities[5]. In other words, data points which have a positive value on the y-axis indicate that the HPI of the capital city increased more than the rest of the country. In countries such as Sweden and especially in Austria, Germany and the UK, in the last decade house prices increased significantly at country level and the capital cities experienced a further significant increase in the HPI. Similar to the charts on the demographic evolution, HPI in some countries particularly hit by the financial crisis are still 20%-30% lower than in 2006. In other countries such as France, the Netherlands and also the US, the country-wide HPI has not dramatically changed with respect to 2006, while their capital cities' prices increased by between 25% and 40%, pointing to very segmented domestic markets in some instances. In any case as can be seen on Chart 9, in 6 countries out of the sample of 23, the HPI evolved by more than 20% compared to the rest of the country and only in Bulgaria's Sofia have house prices decreased by more than 10% with respect to the rest of the country over the last decade. Also in Turkey house prices in Ankara grew by nearly 30% less than the rest of the country. This can be explained that notwithstanding a staggering increase of more than 60% since 2010, the Turkish capital was overshadowed by a nearly 90% increase of the HPI of the overall country, pulled especially by the house prices in Istanbul which according more than doubled in the last six years.

[4] For Slovenia the base year is 2007 while for Japan it is 2008

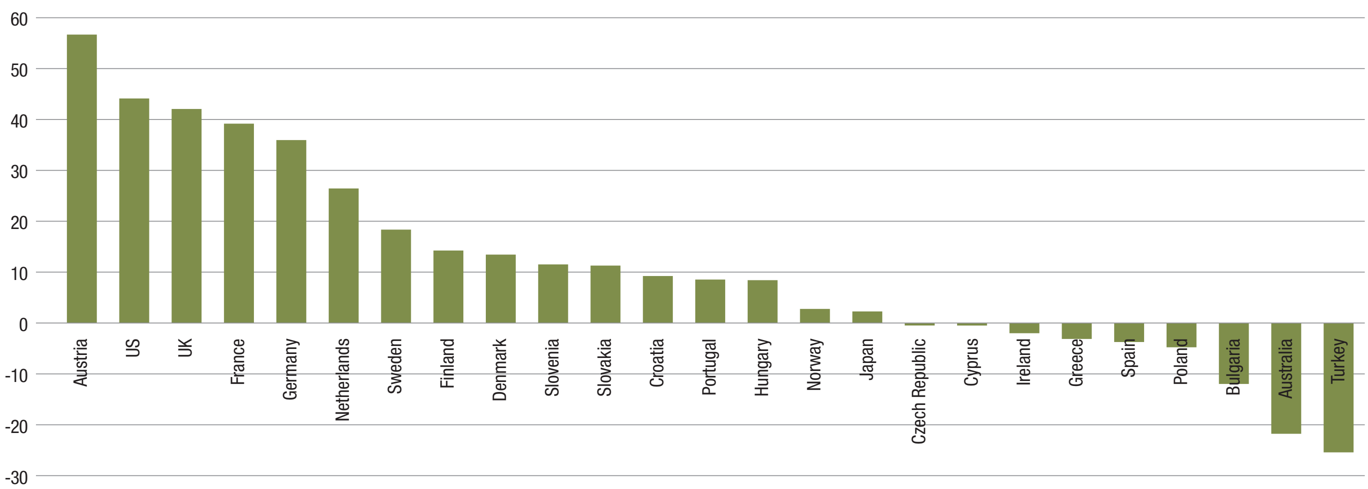
[5] For Germany the city HPI is an aggregate of Berlin, Hamburg and Munich.

CHART 8 ▶ The evolution of house prices in the capital cities and the respective countries



Source: European Mortgage Federation

CHART 9 ▶ Capital city premium with respect to country



Source: European Mortgage Federation

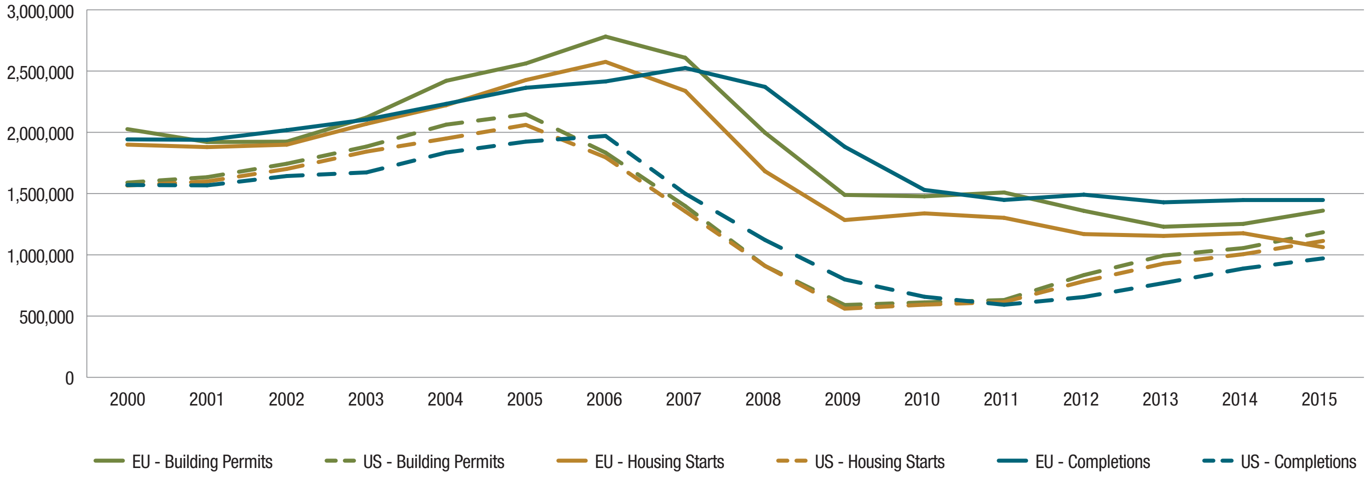
2.3. Housing Supply Developments

Housing supply measures collected and analysed in this publication are (1) the number of building permits issued; (2) the number of housing projects commenced during the year (housing starts); and (3) the number of housing projects completed during the year (housing completions).

Chart 10 shows the evolution of these three indicators from 2000 to 2015 for the EU (refer to footnote 6 for the details of the samples used) compared to the US. The patterns clearly show building permits and housing starts moving largely together, though the total number of projects that received a permit but were not actually started appeared to increase during the year (reflected in the difference between building permits and housing starts). This may be the result of subdued demand conditions, which increase the number of unsold properties already on the market, thus forcing building companies to abandon projects or to postpone their start (though this conclusion must be made with care, bearing in mind that housing start statistics cover a much smaller sample of EU countries and therefore are likely to underestimate the true number of building starts). Understandably, there is a lag between movements in housing starts (or building permits issued) and housing completions. This, too, may reflect abandoned building projects that were not brought to completion due to developments in the housing market during the construction period. Again, this probably is a result of subdued economic activity, the lower demand for housing in Europe and the subsequent contraction in house prices. This said, in 2015 building permits accelerated from the initial pick up in 2014, whereas building starts marked a new low. Completions stabilised after a timid increase in 2014. Overall the aggregate picture in the EU on the housing supply side has remained relatively constant since 2008, which is in stark contrast with the US, where, since 2011, all of these indicators show clear signs of recovery.

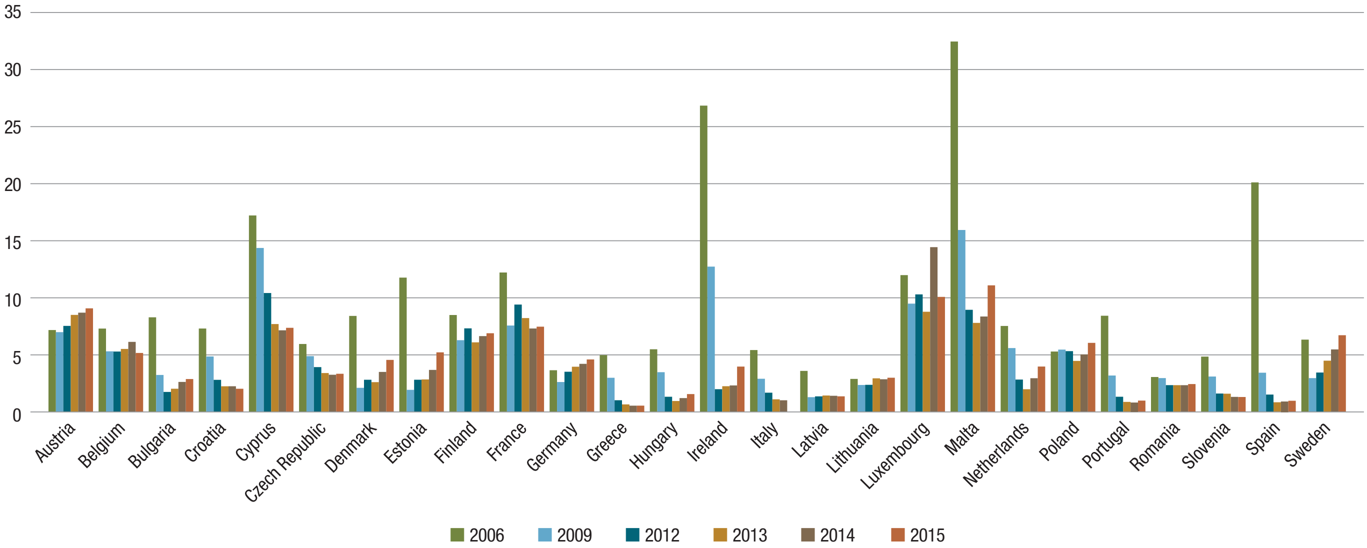
One explanations for the slow responsiveness in aggregate terms of EU housing supply in light of increasing housing demand as seen by the upwards trends in the HPI lies in the fact that available building land is scarce and bureaucracy hampers a swifter reaction in a number of countries. Moreover, a prolonged subdued construction market induced workers active in the industry to seek employment in other unrelated fields. In several countries, the increased demand often cannot be met by new construction because of the lack of specialised

CHART 10 ▶ Evolution of construction indicators in the EU[6], residential units



Source: European Mortgage Federation

CHART 11 ▶ Building Permits per 1000 inhabitants above 18 years



Source: European Mortgage Federation, Eurostat

construction firms. It is however expected that the ongoing and sustained increase in house prices will be increasingly instrumental in driving housing supply, especially in the more active locations as seen earlier.

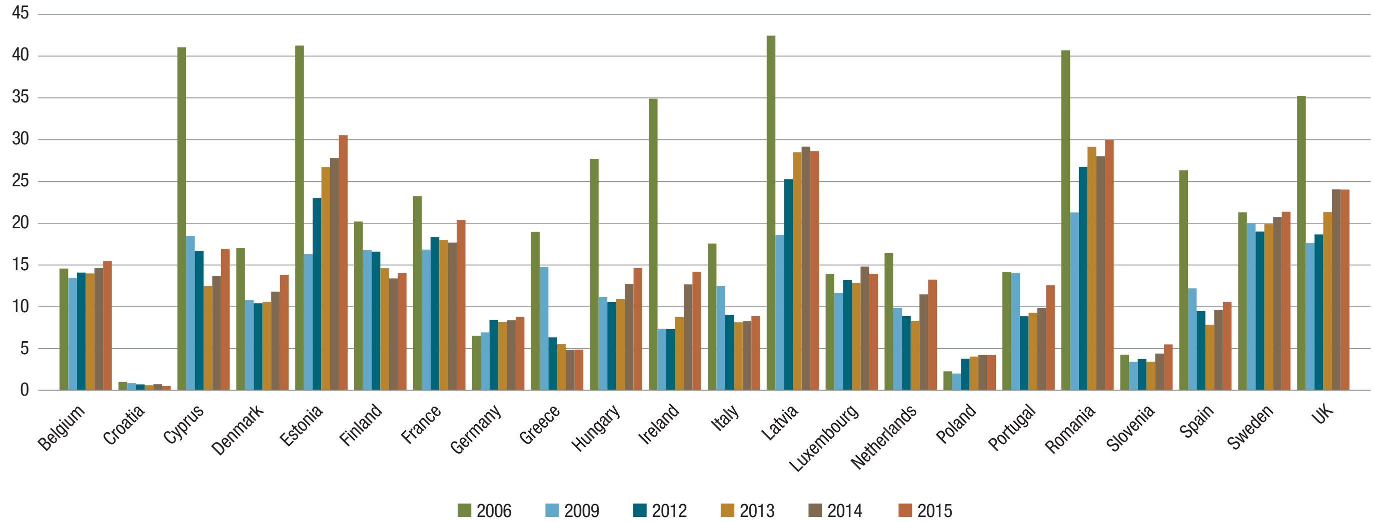
As for the demand side, the supply side also faces a very heterogeneous picture across countries, which reflects a fragmented market that is moving at different paces and in different directions. Chart 11 compares the evolution of building permits in the last 4 years and in 2009 with the pre-crisis levels in 2006, while Chart 12 compares the number of transactions. As shown on the chart, the housing bubble already started to materialise in some countries with very high housing permit and transaction figures per capita in 2006, but quickly and severely plummeted by 2009 throughout the given sample. Countries such as Austria and Germany suffered only a very small setback and rebounded immediately surpassing their pre-crisis level thus proving that their housing markets rest on solid fundamentals. Similar rebounds have been seen also in Lithuania, Poland and Sweden, which reached their pre-crisis level in 2015. A similar picture emerges when looking at the transaction figures of the various countries which, with the sole exception of Croatia, showed an overall increase of the per capita figure from 2014 to 2015. Also regarding transaction evolution, countries such as Germany and Poland witnessed a constant

[6] The three indicators cover all countries in the EU for the stated period with the exception of the following:

- Building permits: UK, BG (2000-2005), IT (2001-2002, 2015), LV (2000-2002), RO (2000-2004), SK (2012-2015)
- Housing Starts: AT, CY, DE, EE, HR, LT, LU, LV, NL, PT, BG (2000-2009), HU (2000-2003, 2010-2015), IE (2000-2003), IT (2000-2003, 2012-2015), MT (2000-2002, 2008-2010, 2012-2015), RO (2000-2001, 2009-2015), SK (2012-2015), UK (2015).
- Housing Completions: AT, BE, FR, MT, BG (2000-2003), HR (2000-2001, 2015), CY (2015), IT (2012-2015), LU (2014-2015), SK (2012-2015), UK (2015).

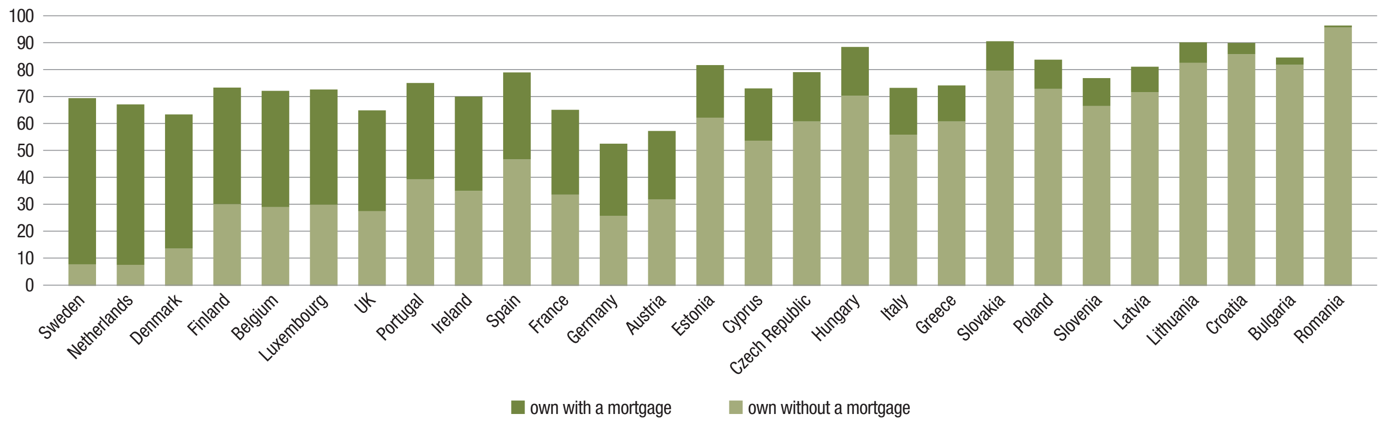
Please note that in order to achieve a consistent sum for the EU over time, the data gaps (i.e. the years in brackets above) have been filled by using the closest available data to the missing point for the given country.

CHART 12 ▶ Transaction per 1000 inhabitants above 18 years



Source: European Mortgage Federation, Eurostat

CHART 13 ▶ Breakdown of mortgage holder among homeowners in 2014, in percent (ordered according to the country with highest share of mortgage holders



Source: Eurostat

increase in transactions over the last decade, while Belgium, Slovenia and Sweden reached and surpassed their levels of 2006. At the other end of the spectrum, countries such as Ireland and Spain, notwithstanding the increase in 2015, are still very far away from their peak in 2006.

3. Mortgage Markets

3.1. Setting the scene – a heterogeneous home ownership pattern across the EU

Homeownership is very much linked to a country's culture and therefore has a very different standing depending on the Member State in the EU. In some countries, especially in Southern Europe, owning a home is considered to be an important milestone in life, whereas in other markets such as Germany, roughly the same number of people owns their own property or pays rent. Chart 13 and Chart 14 show how mortgages impact European households in different ways. Besides the relatively heterogeneous attitude towards home-ownership, there is also a mixed pattern across countries in terms of the use of mortgage financing to purchase a property. It turns out that especially in countries from the former communist bloc a very high proportion of households own their house outright and mortgage finance plays a less significant role in homeownership. This is mostly due to the fact that during the transition to a market economy in these countries, households were handed over the ownership to the state-owned dwellings they were living in. At the other end of the spectrum, in countries such as Sweden, the Netherlands and Denmark, more than half of the population (not only home-owners) are mortgage holders. Overall in the EU, roughly 1 household out of 4 has a mortgage.

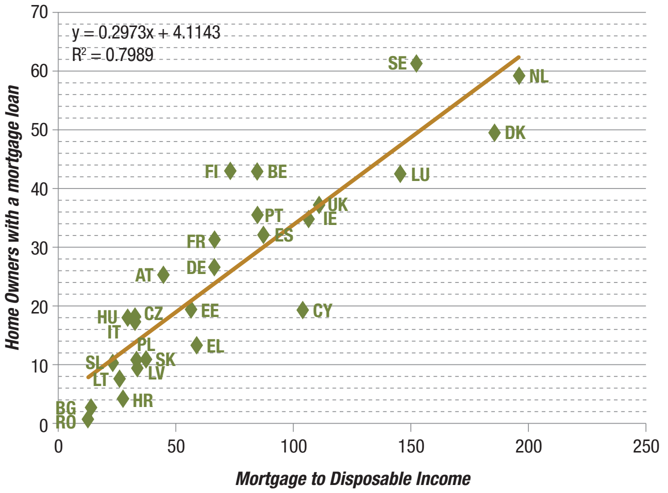
Therefore, not surprisingly, there is a significant correlation between the number of households with a mortgage and the ratio of outstanding mortgages to disposable income, as depicted in Chart 13.

3.2. Residential Mortgage Lending

As suggested in the previous section, the mortgage markets in the EU are very different in size. Chart 15 shows that for at least the last decade the Industry has been characterised by 5 countries, which constituted 74% of the market in 2015, a slight decrease of 4% compared to 2006.

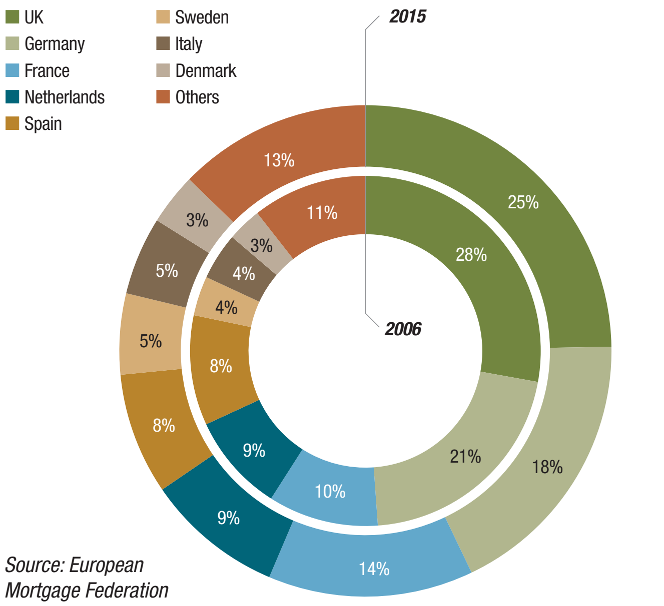
2015 saw a growing residential mortgage market in the EU, with outstanding mortgage lending exceeding EUR 7 trillion for the first time, representing 3.5% y-o-y growth in 2015 compared to 2.4% in 2014. Also in 2015 as in 2014, as shown in Chart 16, the euro area contribution to this growth was 1.5% in contrast to the 7.6% increase from non-euro countries.

CHART 14 ▶ Correlation among outstanding mortgage to disposable income and the home owners with a mortgage



Source: European Mortgage Federation, Eurostat

CHART 15 ▶ Comparison outstanding residential mortgages 2006 and 2015



Source: European Mortgage Federation

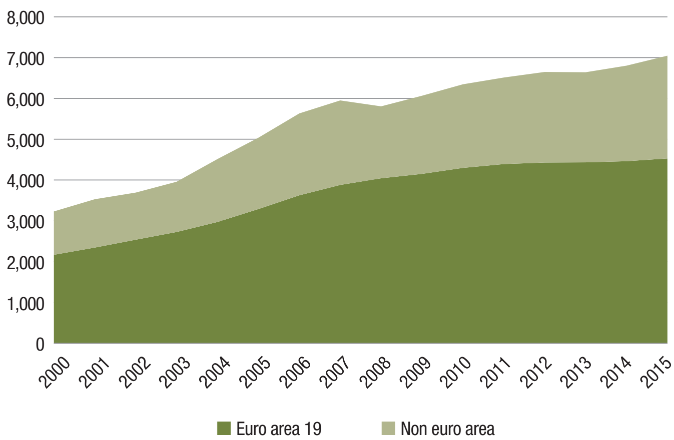
It is important to point out that the value of residential lending in the EU is heavily influenced by exchange rate fluctuations of non-euro area currencies vis-à-vis the euro. Chart 17 shows the evolution of the exchange rates for the 3 largest non-euro area mortgage markets. The chart explains the reason for the dip observed for EU outstanding mortgage lending in 2008, namely that the euro appreciated sharply between year-end 2007 and year-end 2008. On the contrary, the ongoing depreciation of the euro against the Swedish krona (which resumed in 2015) and the British Pound emphasises that since 2008 the contributions of the Swedish and British mortgage markets have probably been overestimated in national terms. This issue does not arise with the Danish krone, which, being part of the Exchange Rate Mechanism, does not fluctuate against the euro.

In Chart 18 the growth of outstanding residential mortgage lending in the EU is analysed by singling out the five largest Eurozone economies together with the two countries non-Eurozone countries with the largest mortgage markets. At first glance, it appeared that in 2015 the UK (as was the case in 2014) was the principal contributor to the growth of the outstanding mortgage market. However, on closer inspection, most of this result was due to the continued appreciation of the Pound Sterling against the Euro.

Modest economic growth coupled with improved labour markets and a very low interest rate environment have also resulted in a healthy increase in gross residential mortgage lending, which grew by 28.2% y-oy in 2015 (compared to 13.6% in 2014) and exceeded the EUR 1 trillion mark for the first time since 2007.. over the last decade, gross residential lending figures displayed a decreasing pattern from 2006 to 2009, stagnated for the subsequent 3 years before increasing from 2012 onwards. Again, as demonstrated in Chart 19 show, different countries display different trends. In countries such as Germany, gross residential lending decreased only marginally at the onset of the crisis and grew robustly during the years thereafter, while in countries such as Spain and Italy a small increase in gross lending has occurred only in the last 3 years, after significant contractions in gross lending from 2006. The UK in the three periods analysed always recorded relatively significant contractions or expansions and the swings in the exchange rate magnified the contraction from 2006 to 2009 and the expansion in the subsequent years. However, the evolution of gross lending in the last three years was less impacted by the appreciating Pound and was rather due to an actual increase in new mortgage lending.

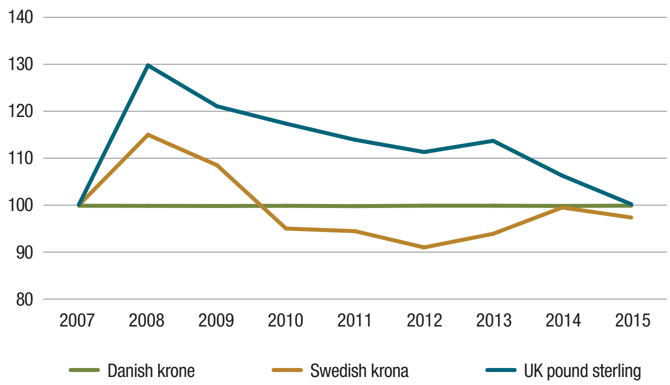
Looking at the cross country data of gross residential lending in Chart 20 gives an impression of the different trends across the EU with, in some cases, also significantly volatile patterns in some countries. By the end of 2015, gross residential lending figures from several countries reached 2007 levels, while others, notably Hungary, Ireland, Portugal and Spain, are still far from the levels of 9 years earlier. In the specific case of Hungary, a reduction in VAT from 27% to 5% for mortgage loans, which will take effect in 2016, will support an increase in gross residential lending in that country. It should also be

CHART 16 ▶ Outstanding Mortgage Lending in the EU split by euro area and non-euro area, EUR billions



Source: European Mortgage Federation

CHART 17 ▶ End-of-year exchange rates for selected currencies against the euro, 2007=100



Source: European Central Bank

CHART 18 ▶ Breakdown of the total outstanding residential loans growth in 2015 by selected euro and non-euro area member state, in EUR billions

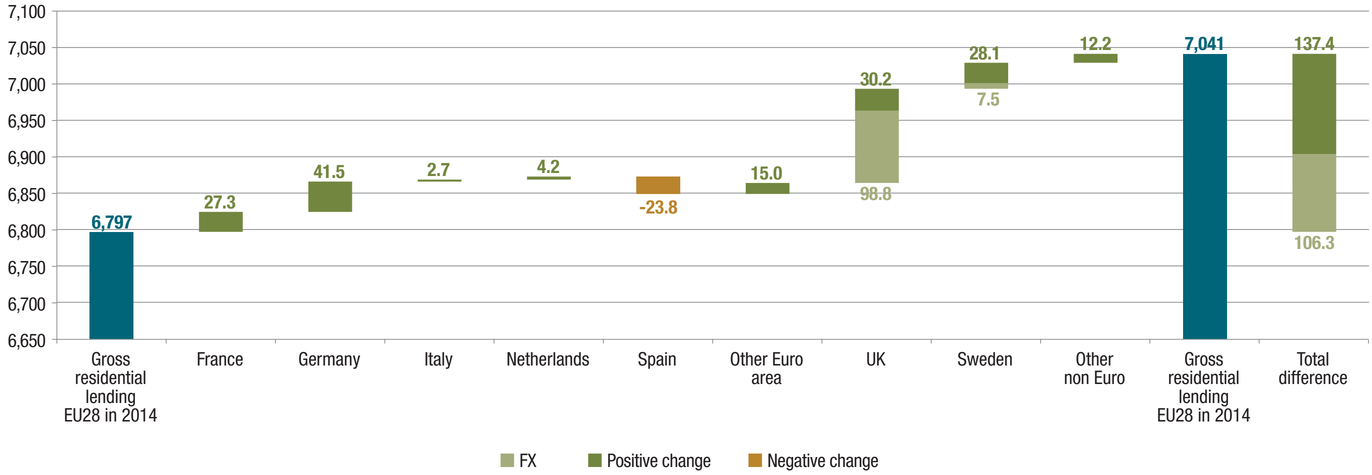
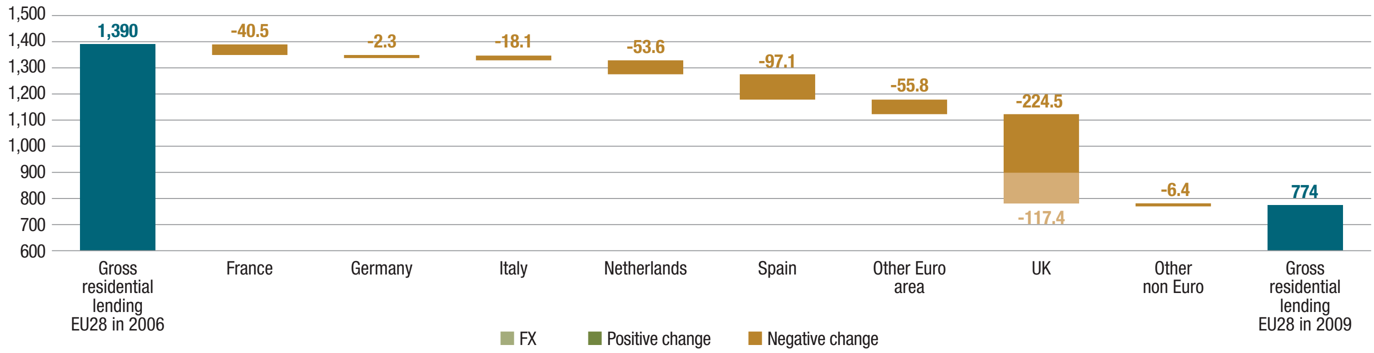
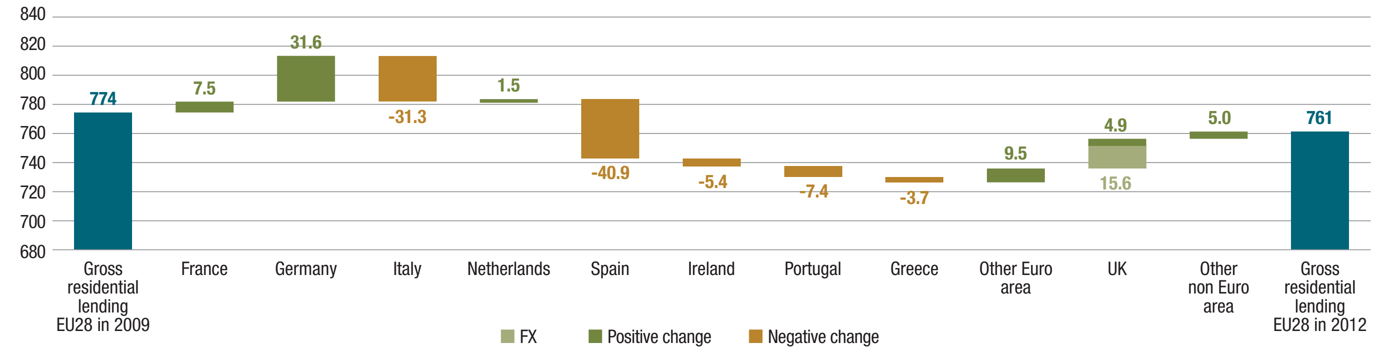


CHART 19 ▶ Residential lending evolution 2006-2015 in EUR billion

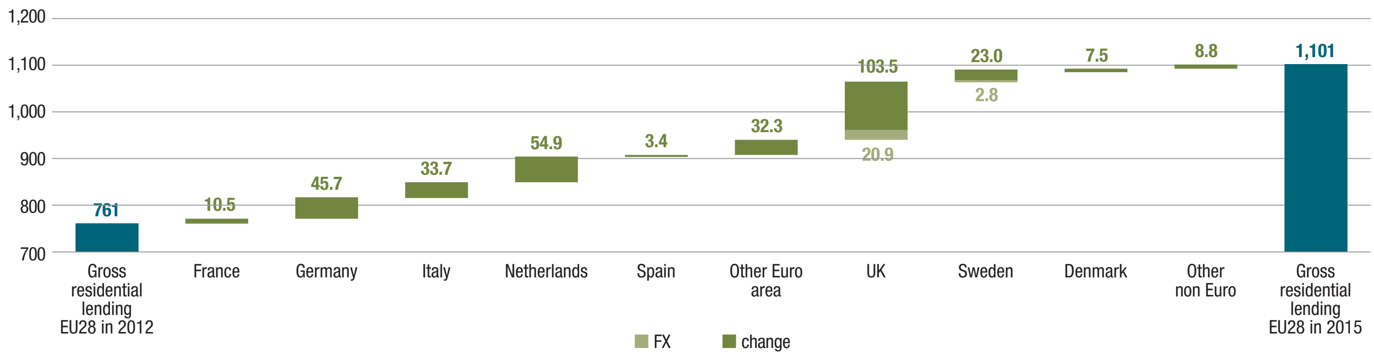
EVOLUTION GROSS LENDING 2006-2009, IN EUR BILLION



EVOLUTION GROSS LENDING 2009-2012, IN EUR BILLION



EVOLUTION GROSS LENDING 2012-2015, IN EUR BILLION



Source: European Mortgage Federation

highlighted that, over the last year in those countries with figures below the 2007 levels, an upwards trend is emerging, which is slowly permitting the recovery of part of the ground lost by the burst of their housing bubbles a decade ago.

3.3. Mortgage Interest Rates

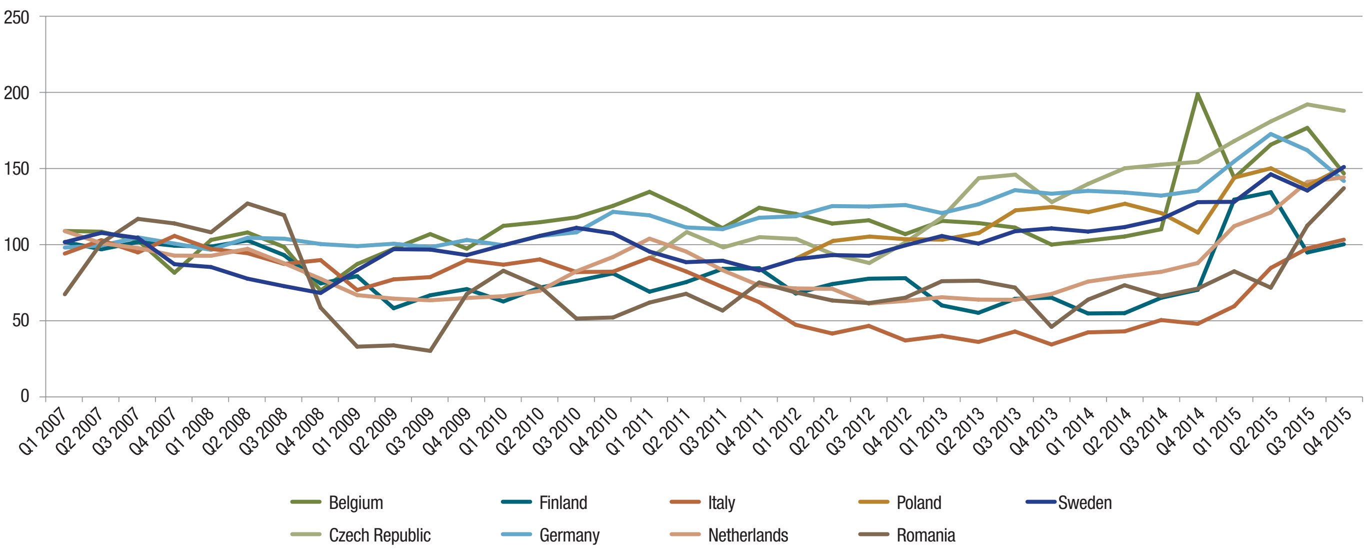
Mortgage interest rates continued to decrease in 2015 and in all countries of our sample they were lower in December 2015 than one year earlier. However, having reached already very low levels during the past year, some countries started to see some interest rate rises. Also Hungary, which led the reduction ranking both in 2014 and 2015, saw a marginal increase in the last part of 2015, as did Belgium, Denmark, France, Ireland and Poland.

Since the beginning of the financial crisis central banks have been cutting their policy rates in order to stimulate the real economy. The ECB in particular brought the policy rates to historical lows. In 2014, the ECB cut the refinancing rate from 0.25% to 0.15% and eventually to 0.05% where it remained until March 2016, when it was lowered to 0%. More importantly the ECB, together with Denmark, Switzerland and Sweden, started charging banks for their deposits, setting a 0.3% fee in December 2015 which was increased to 0.4% in March 2016. In order to further curb inflation, at the beginning of January 2015 the ECB also decided to undertake an expanded quantitative easing program at least until September 2016, which was bolstered with the onset of the purchasing program of corporate bonds in June 2016. In contrast to the aggressive monetary policy of the ECB, on the other side of the Atlantic on the 16th of December 2015, after seven years of the most accommodative monetary policy in US history, the Fed increased the target funds rate by 0.25 pps to 0.5%, thus giving a signal, together with the end of its QE programs, that the US economy has left behind the financial crisis and is gradually tightening its monetary policy.

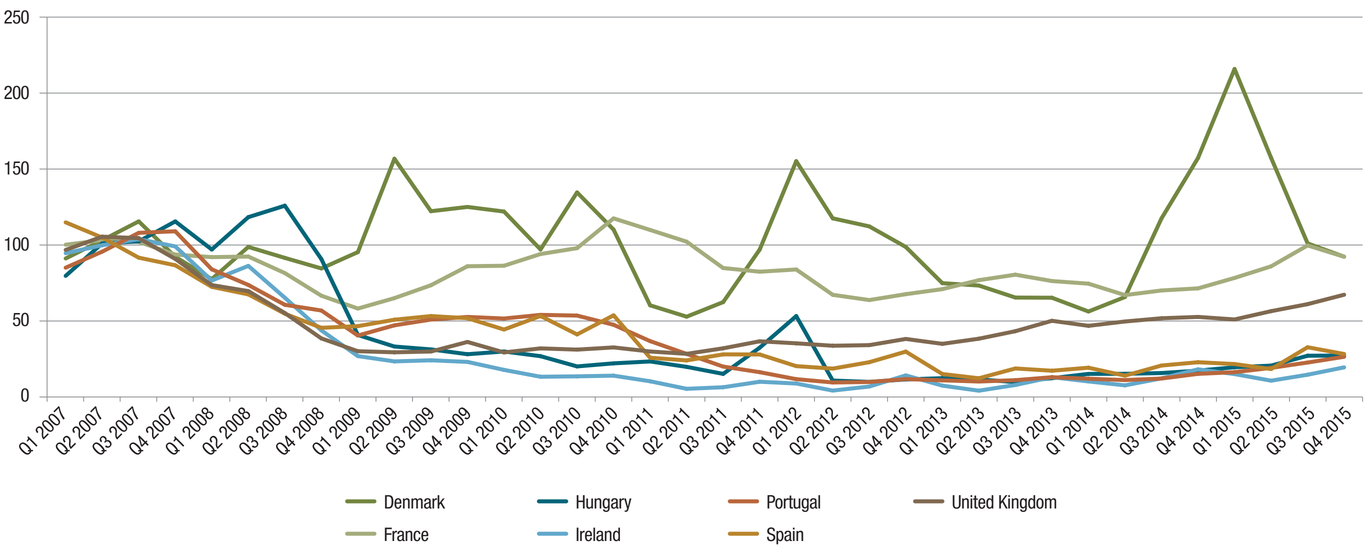
The weak price development of energy fuels, coupled with the output gap especially of the economies of the euro area, the spill-over effects of the divergent monetary policy of the US, the ongoing aggressive expansionary monetary policy and the increased political and economic uncertainty stemming from the British referendum will pave the way for prolonged very low interest rates also in the years to come.

CHART 20

COUNTRIES WHERE GROSS RESIDENTIAL LENDING WAS ABOVE PRE-CRISIS LEVEL (Q1 2007=100)

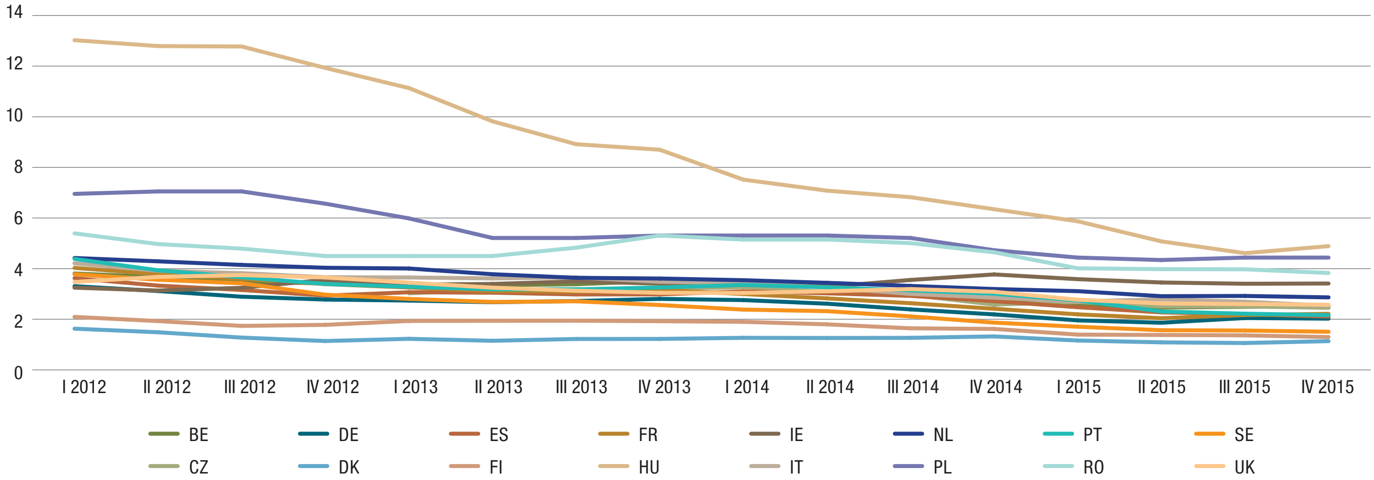


COUNTRIES WHERE GROSS RESIDENTIAL LENDING REMAINED BELOW PRE-CRISIS LEVELS (Q1 2007=100)



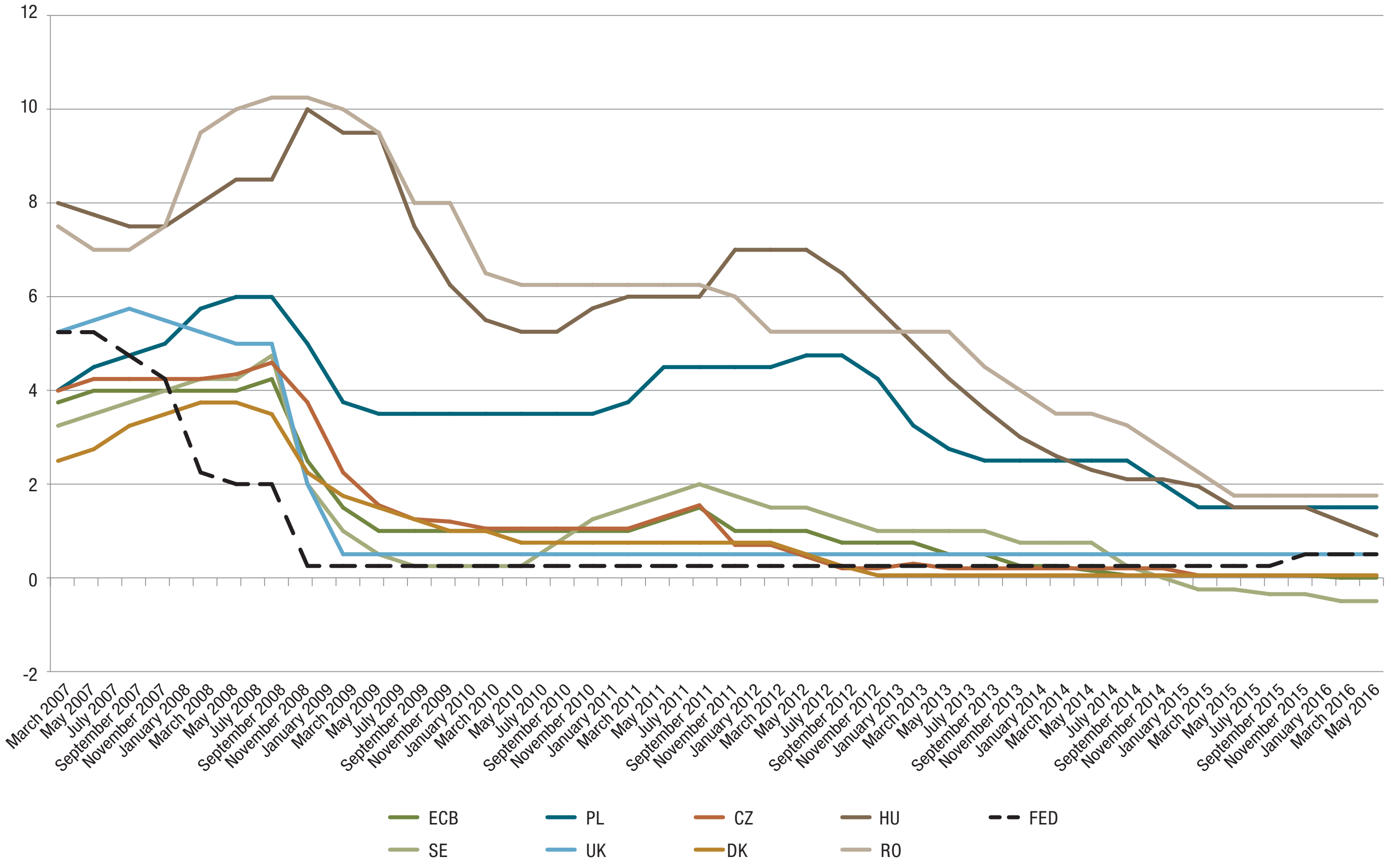
Source: European Mortgage Federation

CHART 21 ▶ Mortgage rates in the EU



Source: European Mortgage Federation

CHART 22 ▶ Benchmark policy rates for some EU central banks, percent p.a.

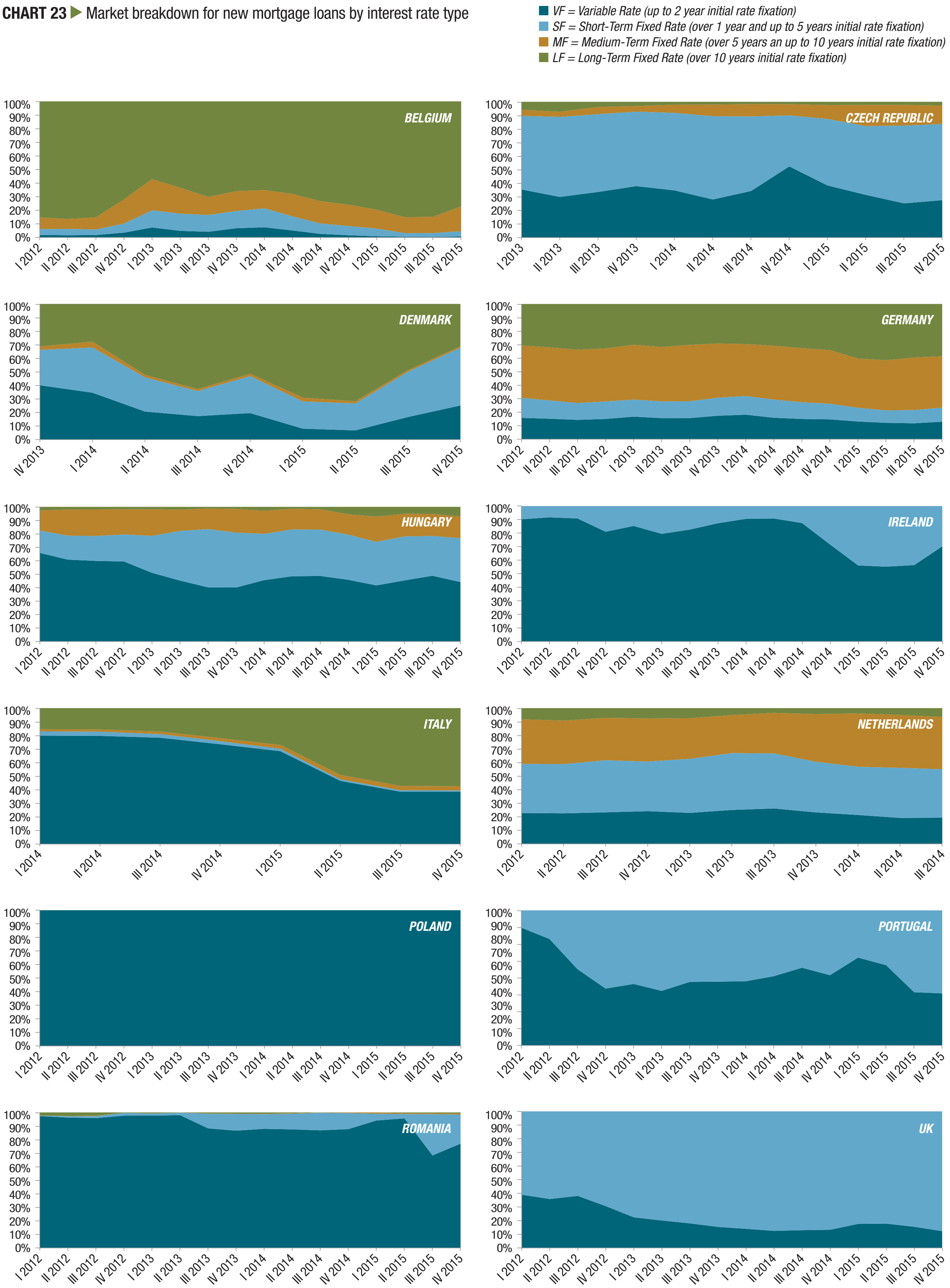


Source: Bloomberg

3.3.1. Different types of interest rates

In terms of the consumer choice of fixed vs. variable mortgage rates, the EU once again provides a very mixed picture, which is a result of traditional and legislative differences aimed at providing different incentives in the various countries. In any case, the overarching and persistent low interest environment, coupled with the signals that this situation for will not dramatically change in the short to medium term, encouraged consumers in countries which have very different traditions in terms of variable and fixed rate contracts, such as Belgium, Czech Republic, Germany, Hungary, Italy, Portugal, Romania, Spain and the UK, to opt for more fixed-term interest rate loans, which can be seen in Chart 23. This can be explained by the fact that a diffuse perception of having reached some sort of lower bound of the applicable interest rates means that prospective mortgage holders believe they will not be better off in the future with even lower interest rates and thus want to lock themselves into the current favourable conditions by opting for a fixed rate contract.

CHART 23 ▶ Market breakdown for new mortgage loans by interest rate type



Source: European Mortgage Federation

The Impact of the migratory influx on the demographic development and the housing market in Germany

By Dr. Philipp Deschermeier, Björn Seipelt and Prof. Dr. Michael Voigtländer, Cologne Institute for Economic Research

1. Introduction

In 2015, net migration to Germany reached a new peak. Never before had so many people from foreign countries sought to live in Germany. Besides people from the EU (EU), who want to work in Germany and participate in the booming economy, immigrants consist of refugees, especially from Syria. Although not all applications for asylum have yet been granted, the authorities estimate that at least one million people live under asylum law in Germany in 2016.

This influx of refugee poses a challenge for society. These individuals require education, a job and shelter. Currently most refugees live in tents, gyms or other provisional homes, but in the medium term they are expected to be integrated in the housing market. In this paper the impact of refugees on the housing market is assessed. In addition, the construction demand for Germany as a whole as well as the largest German cities is considered.

It has been found that, housing demand increases considerably until 2020. However, the demand pattern is very heterogeneous and it increases in cities which already have had a shortage of homes. Therefore we suggest solutions to overcome a lack of housing in the next years. The paper is organised as follows: Firstly, we briefly discuss the new demographic developments in Germany followed by the methodological framework. In a subsequent section, we then present the results and the impact on the German housing market. Chapter five concludes the analysis and provides an outlook.

2. New Demographic Development

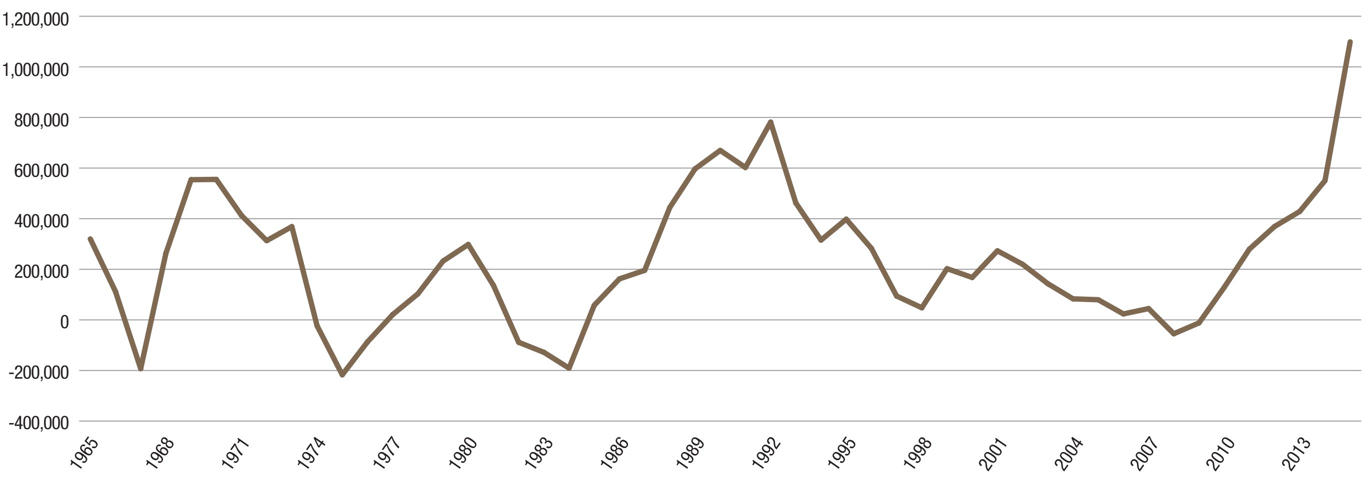
Three factors determine the development of the population: births, deaths and net migration. According to the demographic balancing equation (Deschermeier, 2011), today's population is equal to yesterday's population plus births, minus deaths and plus the net migration between the two periods. The sum of births and deaths is called the natural population development. Since the introduction of the contraceptive pill in the 1970s and the resulting baby bust, the natural population development in Germany has been negative, meaning that without migration, the population would be shrinking.

Figure 1 provides an overview of the development of net migration into Germany from 1965 to 2015 (the last data point is currently an estimate based on the Statistisches Bundesamt (2016)). Net migration throughout the decades has proven to be very volatile. The Balkan Wars together with the settlement of ethnic Germans from the former Eastern Bloc were responsible for the very high net migration of the early 1990s, which represented a post World War II record. However, this historical peak lasted for only a few years and many migrants returned to the countries of origin in the aftermath of the war. The first peak in the late 1960s was due to the recruitment of migrant workers, the so called "Gastarbeiter", which came to an end with a regulation in 1973.

In 2015, Germany recorded the largest influx of immigrants in post war history: more than 2 million people immigrated into Germany resulting in a net migration of over 1.1 million people. This development includes over 1 million refugees coming from Syria in particular. For the first time in German history, immigrants from non-European countries outnumbered those from Europe. This development marks a structural break in demographic development.

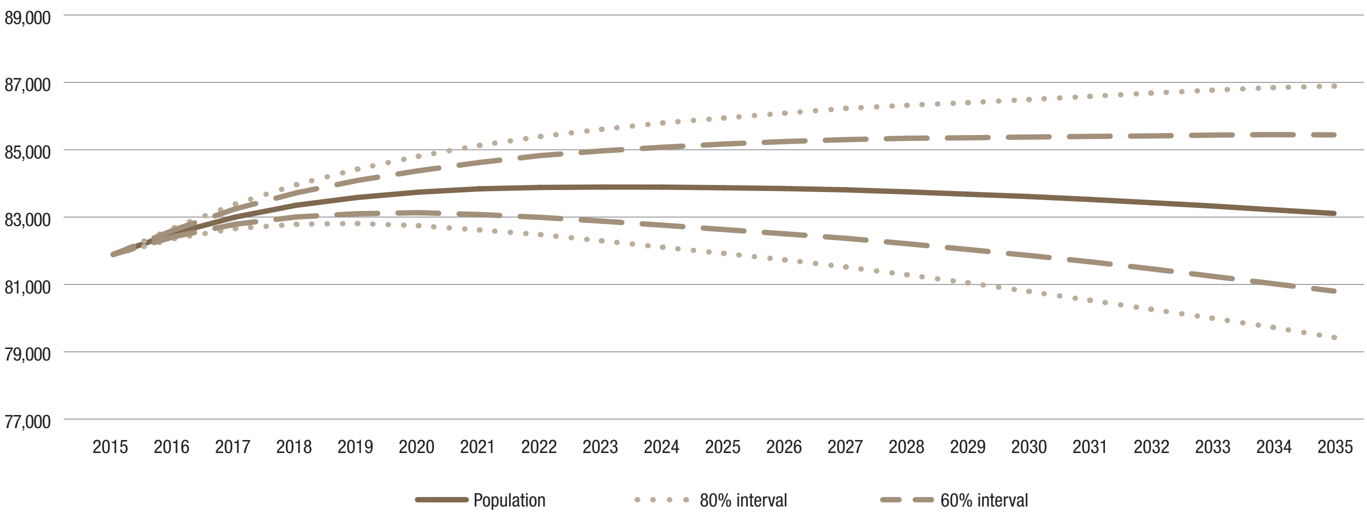
The record net migration of 2015 followed an already high net immigration of 2014, during which immigrants outnumbered emigrants by 550,000. The majority of immigrants came from within the EU, especially from Eastern Europe (Poland, Bulgaria and Romania). The introduction of the unrestricted free movement of workers was the key driver behind the net migration increase. As the German labour market and the economy as a whole proved to be very robust during the European debt crisis, Germany became an even more important destination for labour-motivated migration.

FIGURE 1 ▶ Development of the German net migration (1965-2015)



Source: German Federal Statistical Office (destatis)

FIGURE 2 ▶ Population forecast for Germany (2015-2035, per thousand)



Source: Cologne Institute for Economic Research

This development led to an estimated population of 82 million by the end of 2015, a significantly higher figure than that projected by the German Federal Statistical Office in their latest population forecast that was published in early 2015 (Statistisches Bundesamt, 2015). As net migration is expected to remain high in the coming years, demographic development will differ from the expectations in demographic literature that were considered to be resilient for many years: the population will not shrink in the short run.

The current peak in net migration has resulted in a deviation of the actual population from the expected figures. Against this background, Deschermeier (2016) published a first population forecast for Germany that took the refugee migration into account. The estimates show high net migration numbers for the years to come, which will lead to a population increase for the next five years, resulting in a peak of about 84 million people in 2021. Until 2028, the population will be constant at around this level and will only slightly shrink thereafter to around 83 million in 2035 (see figure 2). As this forecast is based on stochastic methods, it quantifies uncertainty about future developments through prediction intervals and not by scenarios.

Even though the population is not expected to fall below the level of 2015 in the next two decades, German society is aging, and has been for some time. The median age went up by 8 years to 45 years between 1990 and 2015. Furthermore, the share of people aged older than 67 years in the total population increased from 12.1% in 1990 to 18.8% in 2015, and this development will continue in the future. In 2035, the median age is expected to reach 48 years and the share of people aged older than 67 years will be 25.8%. At the same time, the labour force potential will decline by 7% until 2035.

The shift is largely the result of the aging of the baby boomers (people who were born in the early 1960s). They are by far the largest group in the German age distribution and they will be reaching retirement age at the beginning of the 2020s. Low fertility after the bust in the 1970s and increasing life expectancy are additional reasons for the aging of German society. This development will cause a structural, macroeconomic change in the German economy.

The most prominent example of macroeconomic change can be found in the labour market, which will experience a shortage of workers, especially young talents. This will likely result in a skills shortage when the baby boomer generation starts to retire in the early 2020s. Furthermore, an aging society will challenge product markets with different requirements from those of today's average consumer. Also financial markets will have to design new products, which take into account that a large share of the population will be at a point in their lifetime when they spend their money rather than saving it.

The present net migration peak does not change this fact in the long run, even though the age distribution of asylum-seeking people in 2015 was very young compared to the German age distribution, with the vast majority aged less than 30 years old. However, compared to the quantitatively larger baby-boomer-cohorts, their impact on the aging society is rather small. For the real estate industry, the aging society imposes demographic issues as future needs and preferences for housing will differ from those of today. The interested reader can find a comprehensive analysis of the German housing market in Voigtländer et al. (2013).

This paper looks at the short term challenges of the refugee influx and the impact on the housing market. The largest German cities are already facing a significant demand surplus and sharply increasing rents. As the future, especially with regard to future refugee migration, is extremely uncertain, we use two scenarios to model the impacts on the housing market: The first scenario is based on the assumptions of the German government that an average of 500,000 new refugees will arrive yearly from 2016 to 2020. The second scenario assumes a migration stop in 2017 and beyond.

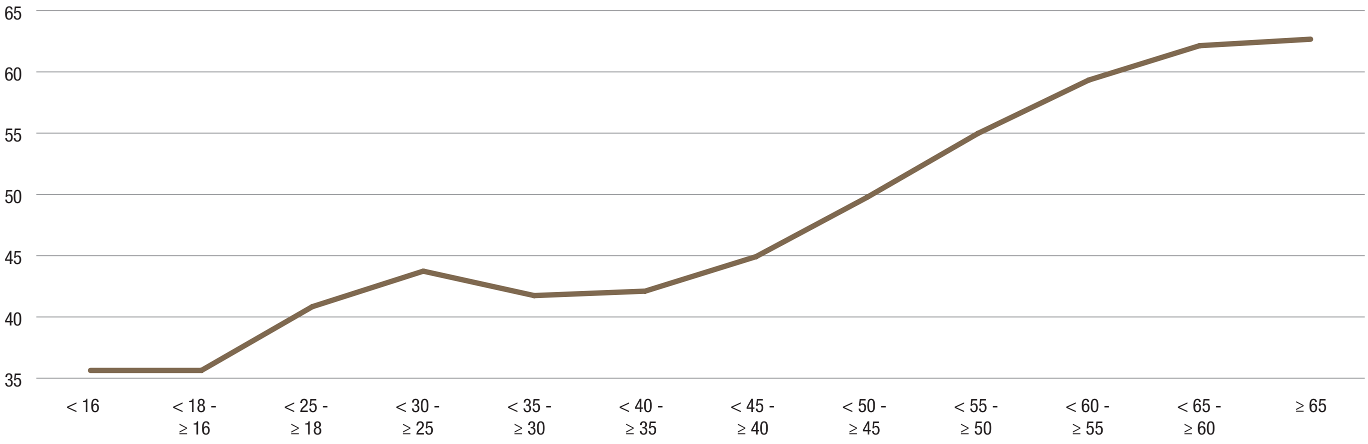
3. Future Construction Demand

In the following chapter we will discuss how the changing demographic environment leads to the actual demand for housing and construction. The applied method basically consists of two components: Firstly, the construction demand arising from natural demographic development is derived from the *IW Construction Demand Model* developed by Henger et al. (2015). Secondly, the increased demand due to the migration of refugees is derived from a model described in Deschermeier et al. (2015).

In a first step of the *IW Construction Demand Model*, the total consumption of living space is determined from the individual age-specific living space consumption in combination with the total population in each age group. In order to obtain the total number of demanded dwellings broken down at the county level, total living space consumption is divided by the average size of newly constructed houses in each county. Subsequently, the raw housing demand is corrected by the rate of abandoned property that exceeds an assumed natural level of 2.5%, in order to derive the actual construction demand (Henger et al., 2015).

Figure 3 depicts the individual age-specific living space consumption for recipients of unemployment benefits (SGB II) retrieved from the German Socio-Economic Panel. As it turns out, living space consumption increases from the age of 18 until 30 but then declines in response to childbirth and an increasing number

FIGURE 3 ▶ Age-specific living space consumption for recipients of unemployment benefits (in m² / person)



Source: Cologne Institute for Economic Research, German Socio-Economic Panel

of household members accordingly. From then on, within the age of >40, living space consumption increases again, as children leave the household or household members pass away. In estimating the construction demand from refugees, we assume that their living space consumption equals living space consumption for recipients of unemployment benefits. This seems to be reasonable, since accepted refugees are granted with the right on the same amount of transfer payments.

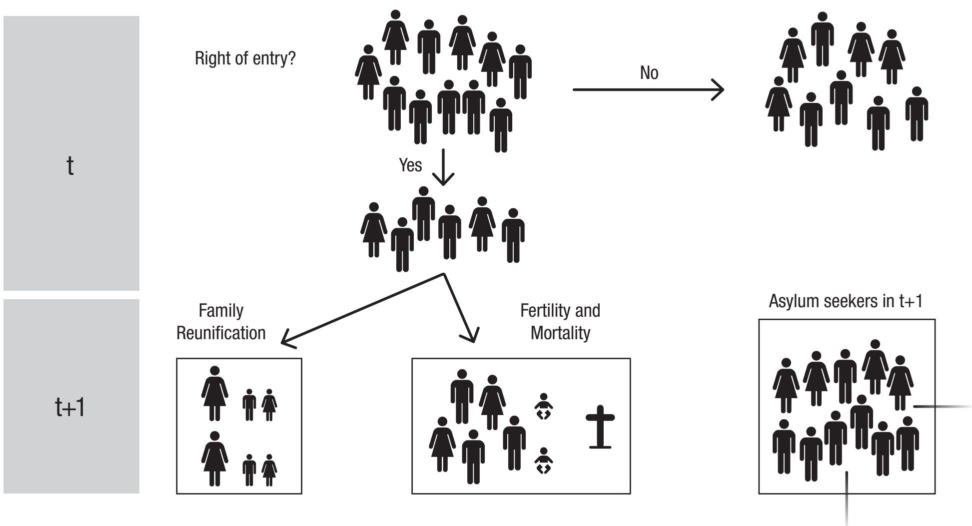
Besides the construction demand resulting from demographic development, a compensatory demand arising from removal, conversion or consolidation is taken into account. Henger et al. (2015) assume an average compensatory demand rate of 0.18% of the housing stock which corresponds to 71,000 demanded dwellings annually.

In a next step, the demand induced by the increased influx of refugees as the second component of the overall construction demand is calculated. Since the recent development of the refugee crisis is not integrated in the demographic figures used in the *IW Construction Demand Model*, this step serves as a complementary component to the demand from natural demographic development. In order to capture the high degree of uncertainty regarding the total number of incoming refugees, we have predefined two scenarios that mirror different patterns of migration.

Based on the assumptions as stated in Chapter 2, we have applied a cohort-component method in order to derive the total number of incoming refugees. For the purpose of operationalisation, the procedure of the cohort-component model is depicted in Figure 4 for the periods t and t+1 which is iterated every year over the entire observation period. In the initial period t, we observe a population of incoming asylum seekers and in order to arrive at the total number of refugees which are permitted to stay, this population is described in terms of its age pattern, age distribution and countries of origin (Deschermeier et al., 2016). The description of the population, which is based on the monthly figures of the Federal Office for Migration and Refugees, leads to the application of acceptance rates according to regions of origin in order to derive the share of asylum seekers who will remain in Germany from the initial population.

Thereafter, in addition to the usual demographic components such as fertility and mortality, the important factor of *family reunification* is applied to the share of staying asylum seekers in period t+1. As defined in Deschermeier et al. (2016), we assume that two thirds of unaccompanied men are allowed to reunite with their families, which consists of three additional family members on average. Besides the described model components, we observe another population of in-coming asylum seekers in period t+1 and the above mentioned procedure is

FIGURE 4 ▶ Operationalised procedure of the cohort-component model for two periods



Source: Cologne Institute for Economic Research

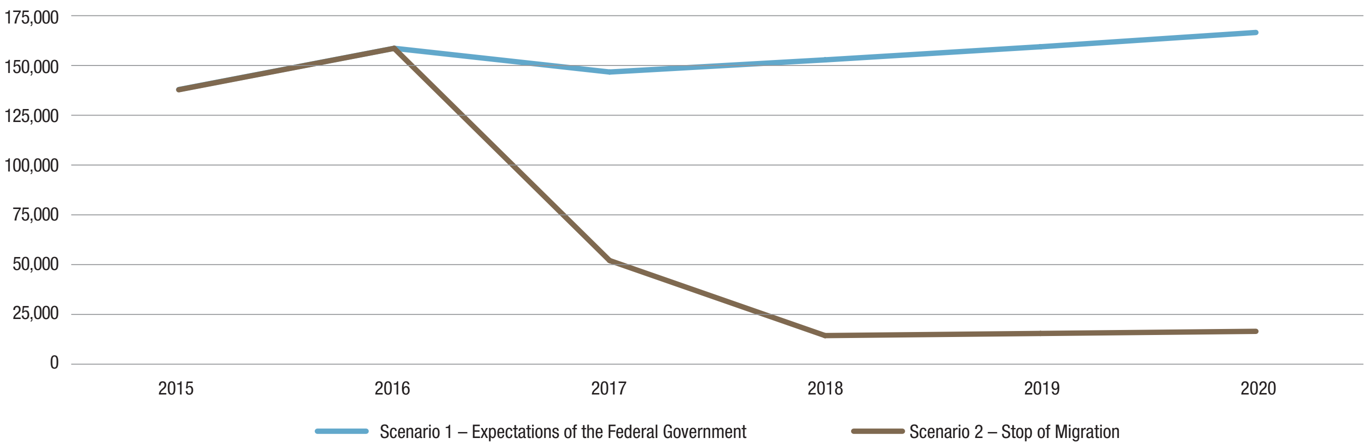
repeated. As a consequence of the reiteration over the entire observation period, we obtain a total number of incoming refugees which are permitted to stay in Germany and therefore become relevant to the housing market. In a final step, the aggregate number is processed according to the *IW construction demand model* in order to derive actual construction demand.

In the subsequent section, the aggregate construction demand for Germany between 2015 and 2020 is presented followed according to a regional differentiation at county level. Basically, the construction demand is comprised of the two components described above. Additionally, Henger et al. (2015) calculate a backlog demand that arises from the low construction activity relative to housing supply between 2010 and 2014. The backlog demand of 310,000 dwellings is equally allocated to each period until 2030. Hence, an amount of approximately 21,000 housing units is added for every year.

Figure 5 shows the housing demand taking into account the increased migration of refugees between 2015 and 2020. In general, one can say that the housing demand shows a significant increase in response to the refugee crisis and consequently the tension in the housing market is likely to increase in the near future. Scenario 1, which mirrors the expectations of the federal government i.e. a total of 3.6 million refugees, exhibits an annual average of 158,000 dwellings. As to this migration pattern, housing demand shows an upward trend of up to 170,000 dwellings needed in 2020. Scenario 2 on the other hand assumes a migration stop in 2017 and depicts the lower end of a range of possible demand figures. According to this migration scenario, demand figures have the same dynamics as the first scenario in 2015 and 2016 with a total number of incoming refugees of 1.1 million during this period. After a peak in 2016 with a housing demand of 163,000 dwellings, demand drops to a level of 16,000 dwellings annually due to the demographic components as well as *family reunification*. The annual average housing demand for Scenario 2 accounts for 67,800 dwellings.

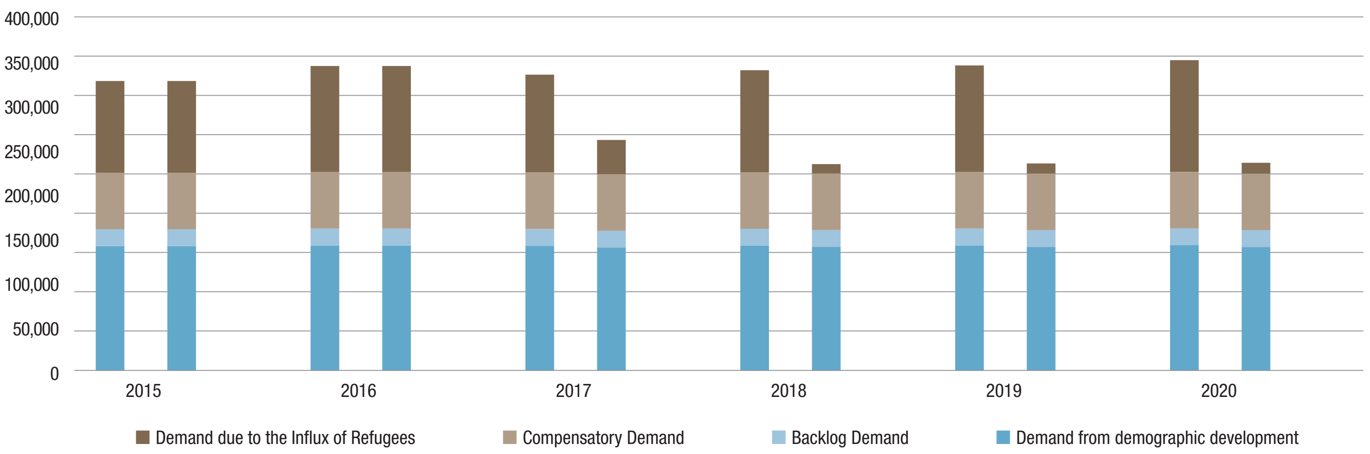
As mentioned above, the demand for housing turns into actual construction demand after adjusting the figures with respect to vacant properties. Figure 6 shows the construction demand dependent on the immigration of refugees on the one hand and demographic development on the other hand. In addition to this, backlog demand and compensatory demand are reconsidered. As to Scenario 1, the construction demand from natural demographic development and compensatory demand account for approximately 230,000 housing units annually and a share of 60% of the total. Besides backlog demand at 6% on average, additional demand arising from increased migration accounts for approximately 130,000 dwellings annually and more than one third of total construction demand. On average, annual construction demand adds up to 380,000 units of housing in Scenario 1. At the same time, average demand in Scenario 2 is approximately 20% less with a total number of 310,000 housing units.

FIGURE 5 ▶ Housing Demand due to the influx of refugees



Source: Cologne Institute for Economic Research

FIGURE 6 ▶ Construction Demand according to causes



Source: Cologne Institute for Economic Research

If the calculated average demand figures are compared to the actual construction activity of 248,000 housing units in 2015, it becomes obvious that the housing market faces a significant shortage on the supply side. In order to match the demand side and equilibrate the market, construction activity has to be increased by 53% according to Scenario 1. However, in response to the excess demand and the political will to reach an annual construction activity of 350,000 dwellings, the number of construction permits has caught up by 9.9% in 2015 to a total number of 313,000 (Statistisches Bundesamt, 2016). Thus, the average construction demand as established in Scenario 2 is satisfied whereas the demand figures according to the expectations of the federal government (Scenario 1) exceed the construction permits by 70,000 housing units every year. Furthermore, it has to be borne in mind that not all permitted constructions are built and a certain fraction has to be subtracted when estimating future construction activity from present construction permits. As a result, it is reasonable to assume that the tense situation in the housing market is most likely to persist.

Since housing markets exhibit a high degree of heterogeneity embedded in different structural contexts, a detailed consideration of the results, broken down to a regional level, is a reasonable extension of the existing approach in order to derive conclusions for individual regional entities. Due to the dynamic development of rents and prices, which mainly occurred in the larger cities, the focus of our analysis is on the major metropolitan areas in Germany. The demand induced by the migration of refugees is allocated to single counties according to the distribution scheme of the *Königsteiner Schlüssel*.

Figure 7 depicts the average annual construction demand for migration scenarios as well as the construction activity and permits in the major German metropolitan areas. It becomes obvious that the calculated demand figures exceed actual construction activity drastically in most cases. For instance, the demand in Berlin accounts for 31,000 housing units according to Scenario 1 and exceeds the construction activity by a factor of 3.5. Compared to the situation in Berlin, Frankfurt and Düsseldorf exhibit a rather moderate ratio of 1.77 and 1.63 respectively. The calculated demand under the assumption of a migration stop as outlined in Scenario 2 leads to a maximum demand of at least 26,500 housing units in Berlin and 3,200 housing units in Düsseldorf. Despite excess demand in urban centers, the supply side is not expected to catch up in the subsequent years. Whereas Berlin and Stuttgart exhibit an increase in construction permits of 16.5% and 6.3% respectively in 2015, the number of permits issued in other cities dropped relative to the previous year. Hamburg and Düsseldorf exhibit the highest declines of 21.0% and 53.2% respectively.

In light of the presented results it is reasonable to conclude that the tense situation in the metropolitan housing markets is amplified due to the subdued nature of the supply side. Even though the total number of construction permits in Germany increased during the previous year, the demand in the larger cities is not able to match the demand side. Hence, the recent development of rents and prices is most likely to continue in the near future even if the development of migration is highly uncertain.

4. Impact on the Housing Market

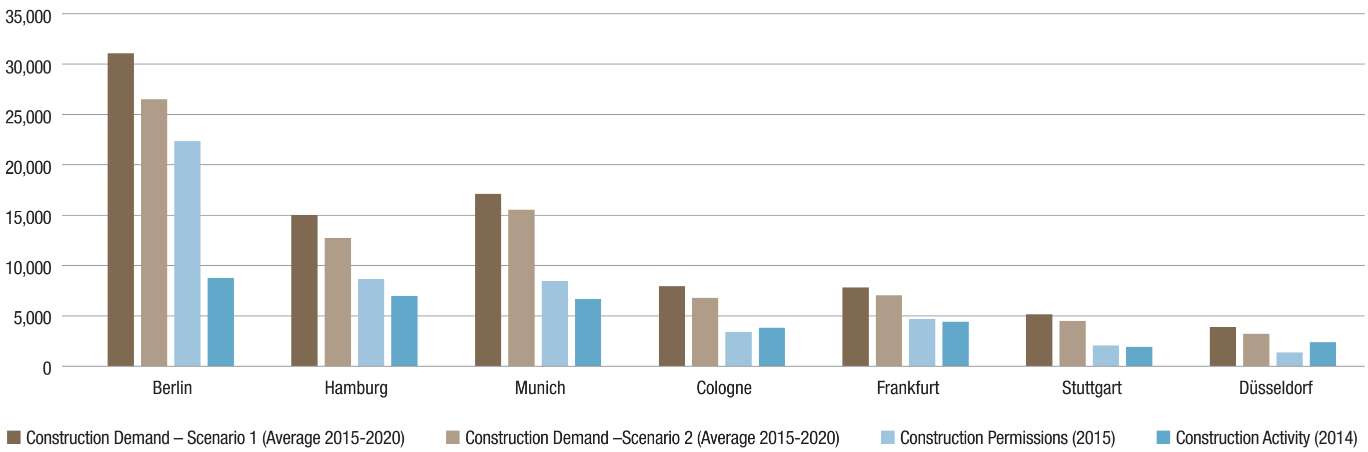
The influx of refugees has a significant impact on the German housing market. Given the current allocation of refugees to the federal states, construction activities have to be expanded by roughly 50%. Consequently, the debate in Germany has changed considerably compared to more recent years, when most politicians and researchers feared a shrinking population and were wondering how to manage this shrinking process. The prospect of growing housing demand is at first sight good news for the German economy. Due to ultra-low interest rates, a more or less booming economy and a lack of investment opportunities in export-based companies as a result of growing uncertainty about the development of the world economy, there is an excess supply of capital. According to the *IW Real Estate Sentiment Indicator*, which measures the business situation of real estate companies, project developers assess their current situation as extremely favourable. The demand for new homes is extremely high, both from investors and consumers. For banks, mortgage financing is also very attractive and most are willing to lend more. Thus, the construction sector is in a good position to support a further upswing for the German economy.

However, construction of new homes has increased by less than 5% compared to 2014. Despite the growing demand from consumers and investors, there is still a severe shortage of construction. In the seven large cities listed in Figure 7, more than 88,000 new dwellings are needed per year, this is 23% of all dwellings needed. In 2014, however, only 35,000 dwellings were completed which represents 14% of all completions.

Since 2010, rents and prices have been increasing in large German cities as a result of an increasing population and a failed adjustment of supply. The main reason for this is a lack of building sites (Schier/Voigtländer, 2016). All project developers agree that building sites are the bottle neck for their activities. Indeed, in cities like Berlin the number of building sites sold has not increased since 2010, although demand is definitely higher. Hence, the prices for building sites have rocketed since 2010. Another reason is that the standards for new buildings have increased dramatically over the last 20 years (Voigtländer, 2015). Besides energetic standards, fire prevention standards in particular have added to construction costs. Furthermore, a large number of municipalities oblige investors to assume the costs for Kindergarten, streets or other infrastructure. These costs have to be passed on to consumers, making new homes extremely expensive, which restricts demand.

In addition, potential homeowners face more and more restrictions. Usually, prospective home-owners are likely to initiate more construction. Low mortgage

FIGURE 7 ▶ Average annual construction demand for both scenarios, construction activity, and construction permissions for the major German metropolitan areas



Source: Cologne Institute for Economic Research

rates more than compensate for increasing prices; user costs for homeowners are 30% lower than costs for tenants, even in the large cities (Seipelt/Voigtländer, 2016). Purchasing a home is more attractive than ever, but for consumers with an average income, becoming a homeowner is nevertheless extremely difficult. Most fail to save enough for the down payment as well as the transfer tax. Most banks require a down payment of at least 10%, while the transfer tax amounts in some federal states to 6.5%. Tenants who want to become homeowners need liquid assets of EUR 50,000 or more – too much for potential first time buyers such as young families or employees who recently started their career. Moreover, recent legislation, such as the Mortgage Credit Directive[1] (2014/17/EU), requires "responsible lending" from banks, making them even more cautious by requiring even more collateral, i.e. higher down payments.

The problems outlined above hint at possible solutions. A reduction in the transfer tax as well as moderate support for prospective homeowners through guarantees for banks would stimulate construction demand triggered by the increased demand from private households. Large cities should activate more building sites. In most large cities there are sites which could be used for new homes. The best example is the former airport of Berlin, which is located in the heart of the city. However, citizens are often reluctant to for new buildings to be constructed and protests are common. The construction of some 5,000 apartments at the now defunct airport *Tempelhof* was stopped by a referendum. Large cities will most likely have to start to build new suburbs. Many cities, such as Berlin or Munich, are surrounded by open space or smaller towns and villages. Hence, there is scope for new suburbs or overspill towns. With better public transport systems, more people would be willing to live outside the large cities as they could commute more easily. Finally, construction costs could be reduced by carefully checking all standards and obligations – the Netherlands has very positive experience with their sunset legislation with regards to the building code.

All this would help to relieve pressure on the housing market. It would also make it particular in two respects: First of all, refugees have a below average ability to pay for housing, and secondly, at least a part of them will leave the country in a few years. Experience from the past indicates that after 10 to 15 years, some 50% will return to their home countries. This resettlement is necessary for the home countries in order to rebuild the country, but of course it makes planning even more difficult. Germany will most likely need more flexibility in the future. Until now, Germans have built homes intended to last a lifetime, however, as demographics, especially at the regional level, are more and more unsecure, we need at least in part buildings that last for no more than 15 years. Such buildings should allow for a reasonable level of comfort but should also be less costly than ordinary homes. Plans for such buildings exist, but until now they have not been practicable as the building code sets higher standards. Besides refugees also students, pensioners and younger adults are looking for affordable housing, so there are many reasons to overhaul regulations. Creating new suburbs in larger cities that combine affordable houses with typical family homes and luxury apartments constructing an attractive urban milieu with parks as well as shopping facilities and connecting these towns or suburbs with the city centers is the big challenge for German residential planning. Against the background of low mortgage rates, investors are looking for alternative ways of funding and given the necessity to act, local and federal government should start to release private and public capital to give the cities the necessary boost to grow.

5. Conclusion and Outlook

The influx of refugees and the strong immigration due to labour market prospects have changed demographic perspectives in Germany significantly. A few years ago the public debate focused on shrinking municipalities, now the strong growth of big cities is central. According to estimates of the *Cologne Institute for Economic Research*, Germany needs more than 380,000 new dwellings per year until 2020, with 88,000 of this construction needed in the 7 largest cities alone.

Given the low mortgage rates, there is no lack of investors. With the exception of low income households and households with little equity, there is also no restriction regarding bank lending. However, cities have not planned to grow and fail to provide enough building sites. Thus, cities and the federal government must rapidly consider ways to stimulate buildings sites both within and beyond the city borders. Secondly, standards for buildings must be overhauled in order to allow for affordable housing in new dwellings. In addition, construction has to be more flexible, as demand could change in due course. For instance, a resettlement of refugees could cap housing demand drastically in some municipalities in the 2020s.

All in all, Germany's housing market is one of the most attractive in Europe. Mortgage rates will remain low over a longer period, demand in the big cities is likely to expand and construction will not adjust to demand in short-term. Hence, prices will increase further. Consequently, the market will attract more and more foreign investors. If these investors ideas and creativity in addition to capital, the large cities could make a remarkable step towards internationalisation in the coming years.

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[1] http://ec.europa.eu/finance/finservices-retail/credit/mortgage/index_en.html

The energy efficient dimension in the mortgage market: an international comparative review

By Shochiro Konishi, Japan Housing Finance Agency; Kathryn Laflamme, Canada Mortgage Housing Corporation; David Rosen, PhD, DRA, United States (and editor); Daniele Westig, European Mortgage Federation

Introduction

At the recently convened Paris Climate Summit (Conference of the Parties 21 – COP21), 196 countries agreed to strengthen the global response to climate change. The COP21 Agreement seeks to hold the increase in global average temperature to well below 2°C above pre-industrial levels, and down to 1.5°C above pre-industrial levels (1850-80) by 2050.

National governments have submitted comprehensive Intended Nationally Determined Contributions (INDC), which detail their national climate change efforts in a transparent and comparable way. However, the sum of current pledged INDCs is more in line with total warming of 3°C than one of less than 2°C, creating a need for the private sector to scale up their efforts and support large scale actions to reduce emissions.

The countries involved in COP21 send a strong message to capital markets, creating a degree of certainty about their future engagement in low carbon transformation. As a result, interest in climate friendly finance has increased in magnitude with the successful COP21. Financial institutions report increased demand for environmentally responsible investment products. 2015 represented the highest yearly issuance volume of green bonds, USD 41.3 billion. COP21 aims to increase capital flows for project financing to lower GHG emissions and pursue environmentally sustainable development.

The UN, World Bank, European Investment Fund, the European Commission, European Central Bank and numerous development financial institutions (DFIs) have long recognised a growing link between finance and environmental challenges. They have established green initiatives to bring about systemic change in finance to a support more sustainable world.

In August of 2016, the World Economic Forum, for the first time in its history, found that failure to mitigate and adapt to climate change constitutes the global risk with the greatest potential impact and likelihood over the next decade (Global Risks Report 2016). The Forum found that financial institutions "suffer from an alamring lack of standrised and comparable climate-risk information, which keeps investors and policy makers from accurately incorporating these risks into their decisions."

Housing is crucial to Energy Efficiency policy. In 2011, residential real estate accounted for 18% of global energy consumption (US Energy Information Agency (US EIA)). It is also responsible for an important part of GHG emissions. The US Environmental Protection Agency (US EPA) reports that residential and commercial real estate sectors account for 33% of total GHG emissions in the US Europe's buildings are responsible for 38% of total energy demand in the EU (BPIE, October 2014). In 2012, residential buildings contributed 26% of final energy consumption in the EU, nearly double that of non-residential buildings, 14% (Eurostat). By improving the EE of buildings alone, the EU's total energy consumption could be reduced by 5-6% and CO_2 emissions by 5%.

This article profiles nearly four decades of policy and practice in the United States, Japan, Canada and Europe, focused on improving the Energy Efficiency (EE) of buildings, particularly in the residential sector. Authors from each of these regions provide an overview of policy, industry practice, research, fiscal and financial market support for residential EE efforts.

In Japan, the government has established and developed EE standards and EE performance grades for houses since 1980. Utilising those standards and performance grades, the Government Housing Loan Corporation and its successor, the Japanese Housing Finance Agency, have provided financial incentives for those houses with a focus on increasing EE associated with their mortgage finance and securitisation business.

For nearly four decades, the United States has pursued EE building codes at the state level, and EE mortgage lending financial subsidies for residential retrofits, as well as robust experimentation through a wide range of mechanisms. Financial incentives, tax incentives, capital markets, technical assistance, utility company partnerships, subsidies have all been used to encourage home EE and and research has been conducted to prove the efficacy of EE mortgages on energy consumption, home values and mortgage risk. The US has also pursued the establishment of a variety of home energy rating systems (HERS) to predict a home's energy consumption.

In Canada, an EnerGuide rating system (ERS) was developed by Natural Resources Canada (NRCan) to evaluate and label the EE performance levels of new and existing homes. Currently, all mortgage insurers in Canada offer a program that includes partial mortgage loan insurance premium refunds to borrowers who qualify with more energy efficient homes.

In Europe, the European Commission (EC) has described EE as the EU's biggest energy resource and one of the most cost-effective ways to enhance the security of its energy supply and decrease greenhouse gas emissions. A number of policy and fiscal measures have been adopted by the EC to promote residential EE. Notably, the European Mortgage Federation-European Covered Bond Council (EMF-ECBC) has developed a green mortgage action plan to engage the mortgage industry, capital markets, valuers, banking regulators, utilities, and EE engineers in an effort to promote EE among home buyers and the mortgage industry at large.

It should be noted that this article focuses on owner-occupied home EE retrofits. The US, EU and Japan have pursued EE retrofit efforts for rental housing as well. In the US, a special emphasis has been placed on EE retrofits for affordable rental housing. That said, this article focuses its attention on the owner- occupied mortgage market and their EE retrofit programs.

Japan

Energy Efficient Houses in Japan

The Act on the Rational Use of Energy was enacted in 1979 as Japan experienced the oil crisis in 1970s, in which EE standards of factories, transportation and buildings were stipulated. The measures were enhanced when the act was amended, e.g. in 1998 substantially as the Kyoto Protocol was adopted in COP3 in 1997.

Responding to the Act, EE standards for houses were stipulated in 1980. Thereafter, EE performance grades were stipulated so that consumers could compare the standards more easily, which are now called thermal insulation performance grades. The higher the standard, the greater is the grade number. The standards and grades were both stipulated by the government. The relation of the standards and grades is indicated in Figure 1, the classifications of which are used for EE mortgages provided by Japan Housing Finance Agency.

EE Mortgages Provided By Japan Housing Finance Agency (JHF) (Former Government Housing Loan Corporation (GHLC)

JHF (Former GHLC)

The government has been providing incentives of tax reduction, subsidies and EE house points exchangeable for commodities and other incentives to promote EE of houses, including the subsidies to the EE mortgages provided by JHF.

FIGURE 1 ▶ EE Standards and Flat35, and Others

EE standards, etc.	Thermal insulation performance grades, etc.	Energy consumption for heating and cooling in houses per annum[2]	Share in the all existing houses[4]	Flat35 product types	Flat35 interest rates (As of August 2016)[6]
Prior to the year 1980 standard	Grade 1	56 GJ	61%	Non Flat35	–
The year 1980 standard	Grade 2	39 GJ	21%	Flat35	0.90%
The year 1992 standard	Grade 3	32 GJ	14%	Flat35	0.90%
The year 1999 standard	Grade 4	22 GJ	4%	Flat35S interest rate B type (For the first 5 years Δ0.3% per annum)[5]	For the first 5 years 0.60%, the remaining period 0.90%
Leading standard[1]	First energy consumption grade 5[1]	[3]	–	Flat35S interest rate A type (For the first 10 years Δ0.3% per annum)[5]	For the first 10 years 0.60%, the remaining period 0.90%

[1] *The leading standard that is stipulated in Act on the Improvement of Energy Consumption Performance of Buildings in 2015. The grades based on first energy consumption are stipulated, rather than the grades based on thermal insulation performance.*

[2] *Source : Ministry of Land, Infrastructure, Transport and Tourism*
Scale : Gigajoule

[3] *First energy consumption of the houses that satisfy "first energy consumption grade 5" is reduced by some 10% compared to that of the houses that satisfy "thermal insulation performance grade 4" with general equipment.*

[4] *Source : Ministry of the Environment, As of the year 2005*

[5] *There are additional EE standards for the houses to adopt Flat 35S interest rate B type or A type other than the standards that are indicated in this figure regarding specificities for detached houses or other types of buildings. These standards represent a marginal set with respect to those represented in the table.*

[6] *The lowest interest rates for Flat 35 of repayment term 21 to 35 years and maximum LTV 90%.*

GHLC was founded in 1950 and was fully owned by the government. GHLC had funded 19.41 million houses by the end of FY2006, which occupied 30% of the houses built after the World War II in Japan. GHLC mainly had provided long term fixed rate mortgages directly to the customers. The rights and obligations of GHLC were succeeded to by JHF in FY2007. JHF mainly provides long term fixed rate mortgages through their securitisation business.

Both GHLC and JHF have established proprietary technical standards of housing construction besides the general building standards applicable to all houses. Furthermore, they have promoted the quality of the houses by providing incentives of additional loan amounts and interest rate reduction to the higher quality houses that satisfy the EE and other standards important to the government policy. JHF has also conducted house inspections to supply mortgages. Some 10% of all JHF staff are architects and engineers, who establish proprietary technical standards and house inspection schemes. This is a significant commitment of staff resources by JHF, whose principal mission serves as a housing finance institution.

Flat35

Flat35 is the long term fixed rate mortgage (the interest rate is "flat" for 35 years) that is provided through the securitisation business, in which JHF purchases mortgages executed by private financial institutions and securitises them to MBS. There have been more than one million applications so far.

One of the basic technical standards for Flat35 is "thermal insulation performance grade 2" equivalent. The grade 2 could save some 30% of heating and cooling energy in houses per annum compared to the grade 1 that conducts no EE measures, which doesn't satisfy Flat35 technical standards.

Flat35S(Special)

- **Flat35S**

  The interest rate of Flat35S is reduced by a certain rate from that of Flat35 when the house satisfies one of the four high technical standards regarding EE, earthquake resilience, elderly accessibility, and durability and flexibility. This scheme was launched in 2005. The cost for the reduction has been subsidised by the government, as this measure is a policy mandate.

  There are two interest rate types of Flat35S. JHF reduces 0.3% per annum for the first 5 years with Flat35S interest rate B type that satisfies "thermal insulation performance grade 4". JHF reduces 0.3% per annum for the first 10 years with Flat35S interest rate A type that satisfies "first energy consumption grade 5". The EE standards are shown in the Figure No. (1). Flat35S interest rate B type houses could save some 60% of heating and cooling energy in houses per annum compared to non Flat35 houses. Resident health also improves, as bronchial asthma and atopic dermatitis decrease in the EE house, owing to reduction of the temperature difference in houses and indoor air quality.

- **Expansion In Economic Stimulus Measures**

  The interest rate reduction scale and term of Flat35S has been temporarily expanded several times by the government economic stimulus measures in the range of 0.3 - 1.0% and 5 - 10 years respectively. The government aimed at stimulating the economy and simultaneously promoting the enhancement of houses to address the policy issues.

- **Flat35S Eco (The Measure For Great East Japan Earthquake In 2011)**

  A great earthquake hit East Japan in 2011, with nearly 20,000 people dead or missing. A big tsunami hit the nuclear power plant in Fukushima and electric power fell short. To revive the economy and promote EE for houses, Flat35S Eco was launched. The interest rate reduction scale was expanded from 0.3 to 1.0% in the disaster area and to 0.7% in the other area for about one year. Flat35S is used for EE to cope with the natural disaster as described.

- **Measures For Existing Houses (Including Renovation)**

  It is critical to renovate the existing housing supply in Japan, with many vacant houses. In 2005, 61% of the total existing houses were without any EE measures. Therefore, special technical standards for existing houses to adopt Flat35S interest rate B type were stipulated, which simply require the use of double sashes or insulating glass in the doors and windows. Furthermore, a new program will be launched this October where the interest rate reduction scale will be expanded from 0.3% to 0.6% when the existing house after renovation satisfies Flat 35S regular technical standards. These are not temporary but permanent programs.

- **Rental Houses**

  JHF provides direct loans with long term fixed interest rates for EE rental houses for households with small children and those with nursing services for the elderly. This is another priority for government policy. EE requirement is "thermal insulation performance grade 4". JHF also promotes EE of rental houses whose qualities tend to be lower than the owner occupied houses.

- **House Inspection**
  JHF conducts proprietary house inspections to provide Flat35, including a check if the house meets technical standards for Flat35S. There are three stages for house inspections for newly built detached houses: (1) drawings inspection; (2) on-site inspection on completion of roof construction; and (3) on-site inspection on completion. For condominiums, there are two inspections: (1) drawings inspection; and (2) on-site inspection on completion. JHF also conducts house inspections for existing houses and rental houses. JHF contracts out house inspection operations to the private inspection institutions and local government units, e.g. to some 125 private inspection institutions for Flat35, so that JHF may conduct house inspections all over Japan.

EE Mortgages by Private Financial Institutions And Local Government

Some private financial institutions and local government units provide EE mortgages by reducing the interest rates or subsidising. Nevertheless, they are not popular products. The mortgage interest rates of private financial institutions are so low (0.625% for ARM, as of August 2016) that they could hardly reduce the interest rates or provide incentives. They don't seem to find the advantage of promoting EE houses with some costs to increase their mortgage portfolio. The local government units seem to focus more on the higher priority policies such as decreasing birth-rate and aging population than EE policy with their limited budgets.

Future Policy Direction for EE Houses

In 2020 when Tokyo Olympic and Paralympic Games will be held, the government will impose some EE standards to all the new houses for the first time in Japan. The government seeks to make the ZEH house (Net Zero Energy House, producing the same energy as consumed at the house) to be the standard house (more than the half of new houses) by 2020. JHF may be required to promote EE more by providing mortgages with interest rate reduction and other incentives responding these government policies.

Europe

Current Situation in Europe and Legal Framework

Buildings are responsible for the largest share of European final energy consumption (40%) and they represent the greatest potential to save energy - 80% of existing buildings in the EU were built before 1990 with very limited, energy-related building codes and the energy intensity of heating per floor area is two times higher than any other region of the world (Figure 2a and 2b).

Buildings are long-term assets expected to remain useful for 50 or more years and 75-90%[1] of the EU's existing building stock is expected to still be in use in 2050. The principal challenge for Europe's EE policies for buildings is to improve and upgrade the existing building stock, as demolition rates (0.1% per year) and renovation rates (1.2% per year) are very low and only 1% of new builds are highly energy efficient.

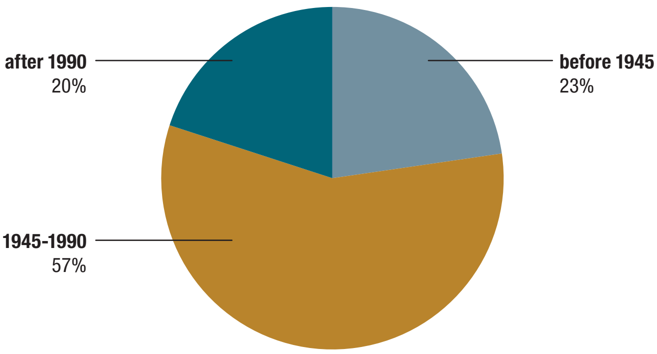
The European Commission describes EE as the EU's biggest energy resource, one of the most cost effective ways to enhance the security of its energy supply and decrease GHG emissions. By improving the EE of buildings, total EU energy consumption could be reduced by 5%-6% and CO_2 emissions by 5%[2]. The EU has set itself an overall 20% energy savings target by 2020 and is now considering increasing this to a 30% target by 2030. The Energy Efficiency Financial Institutions Group (EEFIG) calls for EE to be viewed as "the first fuel, because it is competitive, cost effective and widely available". The Group cites EE as the most cost effective approach to reducing the EU's reliance on energy imports, costing more than EUR 400 billion per year. Meeting this goal will require an estimated EUR 100 billion annually in investment up until 2030, with approximately EUR 65-70 billion per year in the residential EE sector[3].

The EEFIG calls for the direct support of EE retrofits to buildings, including housing, as a priority for the European Structural and Investment Funds, Horizon 2020, ETS Revenues (Emission Trading System). Each Member State decides on the use of its EU ETS revenues. However, the EU ETS Directive recommends that at least 50% of these revenues be used for climate action interventions including research and development in EE and clean technologies.

In 2014, DG Energy called for Member States to include Energy Performance Certificates (EPCs) as a requirement for the use of public funds for building retrofits. Member States have developed a wide range of EPCs throughout Europe, with some being much more capable of predicting a building's energy consumption. The Cohesion Policy Program 2014-2020 provides EUR 23 billion, which could be applied to large-scale EE retrofit programmes.

EE in the residential sector benefits from a wide range of policy actions, such as regulatory and financial/fiscal measures, as well as information- and awareness-raising measures, voluntary agreements, infrastructure investment (smart-metre roll outs), market based instruments, and others. Regulatory measures mostly relate to the implementation of the Energy Performance of Buildings Directive (EPBD), including minimum energy performance requirements and certificates for new and existing buildings and inspections of water boilers and air conditioning systems, and the Ecodesign Directive, including EE standards for appliances and equipment. Moreover, to help reach the 20% target, the Energy Efficiency Directive's (EED) Article 7 requires Member States to establish an "energy efficiency

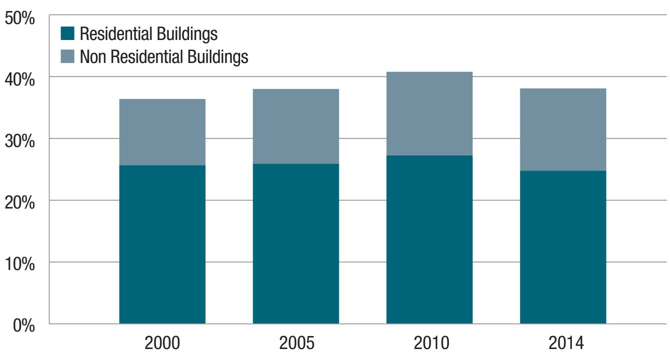
FIGURE 2a ▶ Housing Stock age structure in the EU*



Source: Eurostat

** The sample is of 27 EU Member States (Latvia has no data available)*

FIGURE 2b ▶ Energy Consumption of Buildings in the EU



Source: Eurostat

[1] Energy Efficiency Financial Institution Group (EEFIG). 2015. Energy Efficiency – the first fuel for the EU Economy How to drive new finance for energy efficiency investments. Available: https://ec.europa.eu/energy/sites/ener/files/documents/Final%20Report%20EEFIG%20v%209.1%2024022015%20clean%20FINAL%20sent.pdf

[2] European Commission. Available at: https://ec.europa.eu/energy/en/topics/energy-efficiency/buildings

[3] European Commission – Communication: Energy Efficiency and its contribution to energy security and the 2030 Framework for climate and energy policy (COM(2014) 520 final)

obligation" scheme, which obliges EU energy companies to achieve yearly energy savings of 1.5% of annual sales to final consumers[4]. In order to reach this target, companies have to carry out measures which help final consumers improve EE. This may include improving the heating system in consumers' homes, installing double glazed windows, or better insulating roofs to reduce energy consumption.

Financial and fiscal measures that support EE improvements in the EU include grants and subsidies. A few Member States (France, Germany, Greece, the Netherlands and Portugal) offer loan programmes. Tax relief on EE upgrades for households is reported for Denmark, Finland, France, Germany, Greece, Italy, the Netherlands and Portugal. Six Member States (Austria, Denmark, Estonia, Germany, the Netherlands and Sweden) have put in place energy taxes that aim to change behavioural and investments in EE. Smart meters are expanding for to residential customers in Austria, Cyprus, Denmark, Finland, France, Greece, Ireland, Latvia, Malta and the United Kingdom.

At EU level, the European Commission has increased the amount of public funds available for EE. However, it has also suggested that there is a need to boost private EE investments. And this is where the EU Mortgage and Covered Bond Industries have a contribution to make.

The EMF-ECBC Green Mortgages Action Plan

With the EU's EE of buildings target and the necessary funds required to meet it in mind, the importance of which has been underlined by the COP21 Agreement, the EMF-ECBC believes there is a clear role for a private, bank financing initiative to support households in making EE improvements to their homes. The mortgage industry can play a leading role in developing a pan-European private financing initiative for the EE improvement of residential buildings, which is entirely independent from, but complementary to, public funds or tax incentives and utility rebates.

The EMF-ECBC initiative (the initiative) clearly supports three political priorities:

- **Financial Stability –** the initiative triggers market due diligence for consumers, mortgage lenders, bond issuers and investors, reduces borrowers' default, de-risks banks' balance sheets and management of non-performing loans and enhances transparency and pricing in the market by adding a green factor to real estate.
- **SME & Growth –** the initiative boosts the development of market and technological innovations, provides dedicated resources for specialised small and medium enterprises (SMEs) active in EE retrofit.
- **Energy Efficiency –** the initiative motivates borrowers to undertake EE investments, therefore reducing energy consumption and improving their financial resilience.

The EMF-ECBC initiative is based on two key assumptions:

- Firstly, that retrofitting has a positive impact on property value – studies in the EU and individual Member States have consistently proved this link to be true (between 5% and 12% depending on MS and location); and
- Secondly, that EE borrowers have a lower probability of default. This is because the consumer has more disposable income as a result of savings on the energy bill.

These assumptions drive the incentive chain which provides the business case for the initiative. The initiative provides a micro economic incentive for all of the actors in the chain:

Borrowers are incentivised to improve the EE of their homes for a preferential interest rate or for additional funds on the same terms as the mortgage loan. They benefit from lower operating costs for their home. Research[5] in the US shows that borrowers financing EE properties have a 32% lower probability of default on their loan, due to lower energy bills. This will prove beneficial for lenders if the EE mortgage loans on their balance sheet were recognised as a lower risk and therefore supporting better capital treatment by regulators. For investors, particularly in the current low yield landscape but likely beyond, the initiative will provide attractive interesting portfolio diversification opportunities for 'green' investments. The initiative also creates incentives to make existing green assets more visible, i.e. by segregating EE assets. Finally, this initiative, by encouraging EE improvements which increase the value of the property, protects homeowners and collateral holders against a 'brown discount', ensuring wealth conservation for borrowers and risk mitigation for lenders and investors.

The initiative aims to provide a preferential interest rate for mortgages for newly built dwellings or existing ones which undergo renovation. Regarding retrofit of existing dwellings, by factoring in the increased value of EE improvements, the lender, by maintaining the LTV ratio of the property unchanged, has freed capital which can be used to finance the EE retrofit. In this way SMEs active in EE will also benefit.

In order to quantify the amount of actual improvement, a robust set of indicators have to be developed. The EMF-ECBC proposes a three pillar approach combining in the short term (1) the Energy Performance Certificate (EPC) introduced by the EU's EPBD; (2) a consumption indicator, such as the household's energy bill taking into account the composition of the household and adjusting for different weather conditions; and (3) an alternative demand indicator in the longer term. The last indicator, still to be determined, will provide a real time measure between the energy used by the property before and after the retrofit. Until (3) is fully operational, it will be necessary to rely on (1) and (2).

Incidentally, the consumption and demand indicators will play other key roles as well by: (1) encouraging good consumer energy behaviour (energy bills) (see below) and (2) potentially supporting the EMF-ECBC's mechanism to provide additional funds.

Implementation of the Initiative

The EMF-ECBC roundtable events in October 2015 and February 2016, together with a series of bilateral discussions with relevant stakeholders have identified a set of criteria needed for the implementation of this initiative:

- A clear set of principles which enable flexibility at national level but ensure a minimum common denominator.
- A clear definition of an EE mortgage which needs to be aligned with the regulatory benchmarks in the European legal framework.
- The establishment of a 'data warehouse' in order (1) to understand the correlation between EE and the probability of default of the borrowers and (2) to clearly register the link between property, energy rating and loan performance so that these can be identified for 'green ' funding purposes.
- The establishment of an energy passport which records the EE history of a property.

This initiative will be managed by a governance structure comprising:

- Technical Committees to provide a definition and metrics on which to build the quantitative market analysis, with a focus on the financial, EE and valuation/data aspects of the initiative
- An Advisory Council with representatives from the World Bank and the EU Commission
- A Steering Committee with representatives from mortgage lenders, mortgage/banking associations, investment banks which will act as the decision body in charge of updating the initiative on an annual basis

On the 3rd of June 2016, the EMF-ECBC hosted a high level panel debate on "The Future Development of EU mortgage and Covered Bond Markets, and Implications of the Energy Efficiency Debate" at Ca' Foscari University in Venice. Panellists and participants, representing the interests of European mortgage lenders, covered bond issuers, investors, valuation experts, academics, the European Commission and the Basel Committee on Banking Supervision, exchanged views on the future role of banks in financing residential EE. Concluding more than a year-long effort, this event set the stage for the launching, in the coming months, of a pilot phase with a small number of relevant stakeholders to: (1) identify evidence of a positive impact of EE on property value and probability of default, and therefore bank risk by way of portfolio analysis, and (2) analyse the potential for and design of a concrete business case.

[4] http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52013SC0451&from=EN

[5] Bob Sahadi, Sarah Stellberg, Chao Yue, Nikhil Kaza, Roberto Quercia (2013); Home Energy Efficiency and Mortgage Risks; Institute for Market Transformation

United States

The US has engaged in very large scale residential building EE retrofit and finance efforts for more than three decades. Utilities, regulated by state governments in the US, face renewable energy portfolio standards (REPS), which establish quantified goals for the production of energy from renewable sources (e.g., solar, wind, geothermal). A growing number of state utility regulators are now adopting energy efficiency portfolio standards (EEPS) (New York, North Carolina), which require utilities to reduce energy consumption among their customers through EE retrofit programs. These efforts are supported by rebates and tariff reductions in support of EE and renewable energy home improvements. Mortgage lenders and mortgage insurers have specialised "green mortgage" programs, and the US tax code provides incentives for energy conservation and renewable projects. Federal cash subsidies (fiscal supports) for home EE retrofits, loan guaranties and related program total more than USD 10 billion over the last decade alone.

The Database of State Incentives for Renewables and Efficiency (DSIRE) website provides a comprehensive catalogue of state EE programs (rebate, grant, tax incentive, tariff reduction, finance, credit enhancement, secondary mortgage market) for home energy retrofit programs nationwide: http://www.dsireusa.org/.

In the United States, most states have substantially revised their building codes to require ever-greater EE. Led by California dating back to 1978 with its Title 24 building code standards, continuously strengthened by California through 2015, a variety of environmental certification systems have since emerged such as LEED, EnergyStar, Home Energy Rating System (HERS), GreenPoint rating and other systems. These building codes apply to new construction, and in some cases, to substantial renovation. They do not apply to stand-alone EE home retrofit projects.

Green Value

The "green value" of a building is defined by the impact on property value of EE and other environmentally friendly features, access to public transportation and other measures. Research on this topic usually focuses on the energy dimension of green value. The first attempts to assess green value in the US, and Europe (Germany and Switzerland) (Taffin, Rosen, 2015), estimated gains of around 5% for "green buildings," mostly commercial, characterised by regulator definitions or certifications.

A 2012 study in California assessed the effect of green labeling on the sale price of homes (Kok, Kahn). The study examined 1.6 million single-family home sales between 2007-2012 in California. However, of these homes only 4,321 were certified under the EnergyStar Version 2 format, GreenPoint rated, or LEED for Homes. The study controlled for a large number of variables that affect real estate pricing, and found a positive correlation between green labeling and price of 9% with an error of ± 4%. The authors calculate that with an average sale price of non-energy efficient/energy labeled homes in California of USD 400,000 during this period, a price premium for a certified green home equates to approximately USD 35,000 in value for a comparable nearby home. The authors note that the study's findings echo results from prior research in the commercial real estate sector.

A study published in the US Appraisal Journal documents that a home value increases USD 20 for every USD 1 decrease in annual energy costs. An analysis by the Pacific Northwest National Laboratory found that building a home that exceeds the Model Energy Code might result in annual energy savings of USD 170-425. Applying these findings to the analysis published in the Appraisal Journal would equate to an increased home market value of USD 4,250-10,625.

A 2015 study performed by the Lawrence Berkeley National Laboratory examined the effect of solar PV systems on home sale prices. The study examined 22,822 sales, 3,951 of which contained PV systems, during the period 2002-2013. PV sale price premiums averaged USD 4/W, or USD 15,000 for an average-sized 3.6-kW PV system. Statistically insignificant differences were found between new and existing home sales. This "PV Value" held consistently across states, housing and PV markets, and home types. The market appeared to depreciate PV systems in their first ten years, a rate which exceeds the rate of PV efficiency losses. The net cost of PV systems, taking into account government and utility subsidies, appeared to be the best proxy for market premiums. The authors note income-based estimates may perform equally well to estimate market premiums, if they can account for local utility tariff structures and subsidies. (Hoen, et al, 2015).

A small Colorado study was inconclusive in quantifying a value premium for EE of new and existing homes in a variety of Denver submarkets. On an individual case basis, the study did find positive values associated with measures of a home's EE. However, the authors conclude that "(s)tandardised documentation about EE appears to be in its infancy." (Desmarais, 2015, Colorado Energy Office).

In the United States, lenders and appraisers have been slow to recognise the value of EE homes. This is beginning to change. Both the US Appraisal Institute and the Appraisal Foundation have undertaken green value assessment programs for residential real estate. The Appraisal Foundation and the US Department of Energy have entered into a memorandum of understanding to help assure that the uniform standards of Professional Appraisal Practice (US PAP) are applicable for energy performance and green valuations, and that appraisers are trained in the application of these standards. The Appraisal Foundation issued an Evaluation of Green and High-Performance Property: Background and Core Competency in 2015, providing guidance on green valuations for residential, commercial, multifamily and institutional properties.

Energy Efficiency and Mortgage Risk

There is a paucity of research linking the EE rating of a home with the probability of default on the underlying mortgage for that home. However, those studies that have been conducted show promising correlations between mortgage and portfolio performance with green rating of the home (collateral). The Institute for Market Transformation conducted the only study in the US with researchers at the University of North Carolina Chapel Hill (Sahadi, et al, 2013). The UNC study examined actual loan performance data obtained from CoreLogic by assessing whether residential EE was associated with lower default and prepayment risks. The authors, accounting for loan, household and neighbourhood characteristics, constructed a study sample of 71,000 EnergyStar and non-EnergyStar rated single-family mortgages. About 35% of the total sample, or 21,000 homes, were EnergyStar rated. Nationally in the United States, the market penetration of the EnergyStar label in new housing construction is noteworthy, with approximately 25% of new US housing starts certified as EnergyStar in 2011. To earn an EnergyStar rating, a home must generally achieve a Home Energy Rating Score (HERS) of 85 or better, indicating at least a 15% improvement over homes built to the current market standard (2006 International Energy Conservation Code Standard), normalised to climate zone, size and type of house.

Controlling for other loan performance variables, the study found that owners of EnergyStar homes were, on average, 32% less likely to default on those homes rated EnergyStar, compared to comparable homes without such a rating. The authors note, "This finding is robust, significant, and consistent." Significantly, the study found that a borrower in an EnergyStar residence is 25% less likely to prepay the mortgage than a borrower in a home without such a designation. Furthermore, the study found that within EnergyStar rated homes, default risk continued to decline as the EE rating of the home improved. The authors conclude that the lower risk of default and prepayment associated with EE should be taken into consideration when underwriting home mortgages.

Energy Efficient Mortgages in the United States

Fannie Mae, Freddie Mac, FHA and the Veterans Administration (VA) have all adopted special underwriting guidelines to take into account EE of homes for mortgage underwriting. EE mortgages generally attribute more income to mortgage paying ability associated with lower projected energy costs of home ownership for the borrower. Some of these loans allowed for the financing of energy improvements at purchase, while others attributed alternative underwriting to homes with higher EE ratings. There is poor data availability on the origination of EE mortgages designed by these guarantee agencies.

In August of 2015, President Obama announced two home EE initiatives: (1) "stretched" underwriting by FHA for homes with better than average Home Energy Scores (Score); and (2) FHA approval of Property Assessed Clean Energy (PACE) financing on homes, in some cases.

FHA will expand its EE Homes (EEH) mortgage product to recognise the home's Score. Homes with scores of 6 or higher (on a ten point scale) will qualify for a 2% "stretch ratio" on a new or refinance mortgage. FHA housing debt-to-income ratio ("front end ratio") will be increased from 31% to 33%; the "back end" ratio, or total household debt to income, will increase from 43% to 45%.

FHA noted, in announcing the program, that a home's Score will be calculated by a home energy "Assessor", who inputs information about the home's characteristics into energy modelling software developed by the US Department of Energy and the Lawrence Berkeley National Laboratory. The Home Energy Scoring Tool software is designed to compare homes' performance, regardless of where they are located, or the number of occupants. FHA notes that the Score model is used primarily for existing homes. In contrast, the Home Energy Rating System (HERS) score is primarily used for new homes.

FHA's PACE program addresses a market acceptance challenge. PACE programs have been enacted in 30 states, and Washington, D.C. Under the PACE program, property owners receive financing for EE retrofits, which is repaid by property tax assessments on the homes. These assessments have a senior lien position the home's mortgage loan. FHA will make mortgage financing available on homes with subordinated PACE loans, under certain circumstances. FHA has issued guidance on the conditions it will approve financing for homes with PACE loans.

Energy Efficiency Retrofit Loan Performance in the United States

The most recent and largest demonstration of home energy retrofit performance, with regards to both energy savings and EE retrofit loan repayment performance, is associated with the Better Buildings Neighborhood Program (BBNP) conducted with Stimulus Act funding by the US Department of Energy (DOE). DOE awarded USD 500 million dollars to 41 grantees throughout the US to conduct a wide range of EE retrofit programs for residential and commercial buildings. Of 99,000 implemented projects, 74,184 were residential EE retrofits, comprising 75% of total BBNP project retrofits. Total energy source savings within the residential EE retrofit programs were 3.0 MMBtus. BBNP program participants estimated energy savings of 22% with average actual savings of 15% for a 71% realisation rate. That is, 71% of projected energy savings were realised when building performance was measured post retrofit.

Of the 41 BBNP grantees, 36 used their DOE grant funds to support financing of EE retrofits. 18% of residential retrofit projects received loans. The US State and Local Energy Efficiency Network reports that 10-20% of residential EE retrofits nationally participated in financing, rendering the BBNP 18% financing rate within expected production. Several independent evaluations of the program found that financing was not important for most residential participants, but some participants reported that financing was very important for them. Of those that did take out loans, 73% gave high ratings to the role of the loan in their EE upgrade decision. Aggregate default rates on BBNP EE retrofit loans were less than 1%. Despite the very low default rate, EE retrofit loan production was low and did not reach levels necessary to attract broad interest among financial institutions. Multifamily rental EE retrofit loan programs have found similarly low default rates, with very high loan repayment performance.

As part of its research correlating EE performance and financial performance of residential real estate, DOE conducted a literature review of the impact of EE on the financial performance of commercial buildings. More than 50 studies were reviewed. (See Energy Efficiency and Financial Performance: A Review of Studies in the Market, March 2014, US DOE, Waypoint, for the complete bibliography.) The study originally sought to review all research on EE and financial performance, but the final product focused on "green labelled" buildings, using either a LEED [Leadership in Energy and Environmental Design] designation or Energy Star certification of DOE. The studies found positive correlations with EE designation and rental rates, occupancy rates, utility expenses, sales prices and construction costs. Preliminary correlations were found with tenant quality, occupant health, comfort and productivity, and capitalisation (cap) rates. Mixed results were found correlating to total operating costs.

Canada

National Policy Context

In the summer of 2016, the Government of Canada launched a national campaign to solicit input for the future of housing in Canada. One of the core principles of this campaign is a focus on promoting environmentally sustainable and resilient homes that contribute to Canada's climate change goals. In 2015, the federal government committed to reducing greenhouse gas emissions (GHG) by 30% below 2005 levels by 2030. This signals the federal government's recognition that housing has a large impact on the environment and that there is growing interest for housing options that contribute to a cleaner environment and housing affordability. The residential sector is responsible for 15% of GHG emissions in Canada[6].

Over 70% of Canada's housing stock was built in 1990 or earlier[7]. According to the 2015 Canadian Home Builders' Association Home Buyer Preference Study, 64% of homebuyers rated an overall EE home as a 'must have' item, and an additional 25% considered it a 'really want' item. Given the government and housing industry emphasis on EE combined with an aging Canadian housing stock, as Canadians look to renovate their homes, many mortgage lenders may seek to capitalise on this demand. This will in turn influence the mortgage market offerings for financing home renovations.

Regulatory Requirements

As construction in Canada is regulated by the provinces and territories, there is no coordinated, national approach to EE standards in housing that currently exists. National building codes are model codes and have no legal status unless they are adopted by a province, territory or municipal government. Because of this, Canadian jurisdictions have taken a variety of approaches to regulating greater energy and water-use efficiency in buildings, by either using their individual building codes, or applying legislation specifically addressing EE, or both. Noteworthy jurisdictions include the provinces of British Columbia and Ontario. British Columbia has a broad and comprehensive Climate Change program which includes energy code amendments. In May 2016, Ontario announced climate change legislation aimed at stimulating a shift to a low-carbon economy.

Trend: Rise of Voluntary Labelling Standards for Housing

A particularly noteworthy trend in Canada is the rise in the development and deployment of a range of rating and labelling systems that characterise and communicate the environmental features and performance of housing and communities. These independent, third-party rating and labelling programs help consumers to make more informed choices about the environmental performance of the new homes they purchase, or the renovation of their existing homes. The programs range from single attribute (e.g. EE) type programs to multi-attribute programs that consider a wider range of performance indicators including indoor air quality, environmental impact, resource use and waste management.

The EnerGuide rating system (ERS) developed by Natural Resources Canada (NRCan) is widely used to evaluate and label the EE performance levels of new and existing homes. In 2016, NRCan released a new version of its EnerGuide Rating System (ERS) which evaluates a home based on the number of gigajoules it is expected to consume annually using standard operating conditions. This new scale is being gradually rolled out across the country replacing the existing system which scores EE of a house between 0 and 100; the more efficient the house, the higher the rating. As of July 2016, 1.037 million homes have been evaluated and received an ERS rating. Over 75% of those homes are located in Ontario (51%), Quebec (13%) and British Columbia (12%). The rating achieved by a home varies widely based on when the home was built and the degree to which it has received EE renovations. For example, homes built during the 1960s received on average a rating of 60, whereas those built in the 2010s received on average a 76.

The most prevalent labelling system in Canada is ENERGY STAR® (over 60,000 homes in Canada are labelled ENERGY STAR®). An ENERGY STAR® qualified new home is on average 20% more energy efficient than a home built to code. Various government and mortgage industry incentive programs are linked to the ENERGY STAR® standard.

Mortgage Industry Practice

In Canada, legislation requires federally-regulated and most provincially-regulated mortgage lenders to purchase mortgage loan insurance (MLI) when a borrower has

[6] Natural Resources Canada. *Energy Efficiency Trends in Canada, 1990 to 2009.*

[7] Canada Mortgage and Housing Corporation. *Dwelling Condition by Tenure and Period of Construction, Canada, 2011*

less than a 20% down payment. MLI is provided either by Canada Mortgage and Housing Corporation (CMHC) or a private insurer. Lenders are required to pay a premium which varies based on a number of factors related to the loan application including, but not limited to, the proposed use of the property (e.g. owner-occupied or rental), loan-to-value ratio and type of loan (e.g. purchase or refinance). Current industry practice is that this premium payment is passed on to the borrower.

At present, all mortgage insurers in Canada offer a program that offers partial MLI premium refunds to eligible borrowers if their home reaches a certain level of EE. In June 2016, CMHC enhanced its Green Home Program to offer a MLI premium refund of either 15% or 25% to borrowers who either buy, build or renovate for EE using CMHC-insured financing. Prior to this enhancement CMHC offered a 10% refund. CMHC's new premium refund structure recognises different levels of EE and provides a greater percentage of premium refund for homes achieving a higher level of EE. Therefore, the more energy efficient the home, the greater the potential premium refund for the homeowner.

Within the Green Home Program, standard underwriting procedure is followed and the pricing of the MLI is the same. The premium refund is given to eligible homeowners after the full premium amount has been paid and the mortgage loan has been advanced. In order to be eligible for a premium refund, a homeowner must prove that their home has achieved a certain level of EE. While CMHC requires a one-time assessment of the home's EE, the documentation provided by the homeowner must not be older than 5 years in order to ensure that the Program continues to encourage above standard levels of EE. For home purchases, this can be accomplished in one of two ways: the home can be built under a certain pre-qualified labelling standard (e.g. ENERGY STAR®, R-2000, etc.) or the home can be assessed using the NRCan ERS and achieving a prescribed minimum rating. For home renovations, the required improvements in EE depend on the initial ERS rating of the property in order to recognise that the more energy efficient a home is to begin with the more difficult it is to achieve EE gains.

Mortgage Lenders Practice

Around five years ago, some of Canada's big lenders offered green mortgages – e.g. rate discounts of posted interest rate or rebates off of the mortgage principal for ENERGY STAR® qualified purchases - but most of these products are no longer available. Today, some lending institutions offer cash backs to borrowers for the purchase of a home meeting a certain level of EE; however, these incentives are relatively limited both in number and in benefit to the borrower. For example, one credit union offers up to CAD 2,000 cash back for the purchase of a new home labelled as ENERGY STAR® or LEED® Canada. Standard underwriting applies including that the loan would have to meet legislative requirements (e.g. maximum 95% LTV).

Government and Private-sector Incentives

Various levels of government and utility providers offer green incentives to homeowners. These offerings fall primarily into three categories: rebates/financial incentives (e.g. cash back for EE renovations or cash back for the purchase of an ENERGY STAR® home); low-cost loans to make EE improvements to existing homes offered through either municipal governments or utility providers; and appliance replacement programs (rebates for the replacement of an older appliance with a new EE appliance). Similar to the mortgage insurer programs, the primary method of verifying energy performance for these programs is through either an NRCan rating or being enrolled in a labelling program.

Next Steps, Future Policy Direction and Mortgage Industry Trends

There is a variety of fragmented EE incentives, programs and policies underway in Canada from many different players. Any of these incentive programs will likely not, on their own, cause a large shift in the green mortgage market. However, as various levels of government continue to shift attention to policies and programs directed at reducing harmful impacts on the environment, it could potentially influence more mortgage lenders to enter or re-enter the "green" mortgage field or offer other financial incentives geared towards EE in homes.

Key Findings and Next Steps for the EU

COP 21 provides strong international agreement on the importance of EE toward the goal of reducing greenhouse gas emissions and global climate change. Building codes focused on EE standards for new construction alone will prove inadequate; all industry stakeholders and their government partners will need to develop verifiable, large-scale home EE programs.

The World Economic Forum found this year that failure to mitigate and adapt to climate change holds the greatest risk for the world's economy. The retrofit of existing housing is critically important to this goal. Lack of standardised and comparable climate-risk information hobbles financial markets and their stakeholders: banks, investors, regulators, consumers. The Forum calls upon the power of market forces to provide clear, uniform disclosures of climate-related economic risks.

Long-standing efforts dating back nearly 40 years throughout the EU, US and Japan have built up a rich industry and government track record of best practices, from which home EE retrofit policies may be developed. These efforts have largely been focused on northern countries and regions among developed economies. Despite this long-standing practice, residential EE programs are marked by many, diverse and somewhat disjointed efforts. This is a fragmented market in practice without clear, common standards. Home EE retrofit policy and practice are more strongly correlated in Japan, with GHLC and JHF operating as lead policy making and implementing agencies nationwide.

Perhaps as a result of these fragmented markets and public private practices, the home energy retrofit efforts of capital markets, issuers and lenders are immature, marked by skepticism in the financial world – including lenders, issuers, investors and regulators – about the predictive value of EE labels and associated loans. However, extensive and consistent research on Green Value demonstrates a strong correlation for positive effects on collateral (house value) associated with better EE performance and higher EE ratings. While research on EE mortgage portfolio performance is young, initial findings are promising. This is especially true of the UNC Chapel Hill study in the United States, which found material improvement in performance in default, loss and prepayment speed for homebuyers purchasing EE homes, compared to comparable homes that are less efficient. This research on mortgage portfolio performance needs to grow so that an empirical track record can be amassed for underwriting, credit, valuation and regulatory purposes. The EMF-ECBC green mortgage initiative importantly anticipates the growing significance of a "brown discount" on collateral with low EE performance ratings. This points to risk in portfolios that lenders, issuers, investors and regulators, not to mention homeowners, are wise to anticipate and avoid with a clear green mortgage program, as the EMF-ECBC proposes.

Moreover, Japan has found a promising indication of health benefits for residents of EE homes, offering another policy imperative for advancing residential EE.

The EMF-ECBC green mortgage initiative focus on measuring consumption, through data sharing and partnerships with major utilities, represents a critical advance. This will provide verifiable, quantified measures by which to reward EE performance with improved loan pricing, underwriting, credit policy and regulatory treatment – and market valuation. These data will prove critical in quantifying the effects of EE on mortgage portfolio performance, both at the originator (mortgage lender) and investor (mortgage security, covered bond and other instruments) level. The initiative promises to develop an industry standard whereby lenders, issuers, regulators, utilities and consumers alike can ready guage the effects of energy efficiency on their collateral and homes, and price their mortgage products, and portfolio values, accordingly.

Longstanding international practice across three continents also underscores the importance of integrating fiscal policy support with mortgage finance practice and regulation. This should also be coordinated with utility regulation and EE utility portfolio performance standards. Linking the entire supply chain of energy generation, energy regulation, mortgage policy and regulation, home energy performance measures, and the home retrofit industry will prove critical to achieving the scale necessary if we are to succeed in the goals articulated in the COP21 Agreement.

Austria

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Macroeconomic Overview

According to the first full release of national accounts data, the Austrian economy expanded by 0.7% in real terms in 2015 (trend-cycle component adjusted for seasonal and working-day effects). As a result, annual Austrian GDP growth remained below 1% for the fourth year in a row. Despite an acceleration in export growth, the contributions of net exports to growth slipped into negative territory in 2015 – not least in view of the high import content of investment in equipment. Consumption expenditure expanded more vigorously only by end-2015. Rising real incomes increased the scope of additional private consumption. Expenditures related to the increased arrival of asylum seekers are likely to have fueled growth in government consumption. The latest results of the OeNB Export Indicator reveal that Austrian companies sold almost 3% more goods abroad in 2015 than in the previous year. In its quarterly short term outlook (OeNB's Economic Indicator), the OeNB therefore projects real GDP growth of +0.5% for both the first and second quarter of 2016 (quarterly changes, seasonally and working-day adjusted trend-cycle series)[1]. Real investment in residential construction has been declining since the third quarter of 2014. Investment contracted by 3.7% and 2.3%, respectively, in the first and second quarters of 2015, and slightly less in the second half of the year (Q3: -1.0%, Q4: -0.5%, both year on year). In the first quarter of 2016, investment growth turned slightly positive (+0.5% year on year). Since 2010, investment in residential construction has contracted by 2%. This is in contrast to the trend in building permits, whose number, according to Statistics Austria, has increased by 19% in terms of gross floor space and by 30% in terms of the number of apartments.

Housing and Mortgage Markets

The growth of residential property prices in Austria accelerated notably in the second half of 2015, reaching 7.6% on the previous year in the fourth quarter. This increase marks the end of a period of falling growth rates that had been observed since 2013.

Residential property price growth was particularly strong in Austria, excluding Vienna: at +9.6% in the fourth quarter, residential property prices in the eight remaining provinces accelerated at a rate last seen in 2012 (+10.8%). Price growth picked up momentum also in Vienna, albeit to a much lower degree (+3.9%). In the past, Vienna had seen significantly more pronounced price increases than the other eight provinces. In fact, since the first quarter of 2010, residential property prices in Vienna have advanced by a total of 54%, whereas prices outside Vienna have increased by 30%.

The OeNB's fundamentals indicator for residential property prices shows that the overvaluation of residential property prices in Vienna increased to 21% in the fourth quarter of 2015. This most recent value is 1.5% above the value for the third quarter, which implies that the decrease in the level of overvaluation seen in the past few quarters has been offset. In Austria as a whole, the level of overvaluation rose more notably, by 3 pps from 0.5% to 3.5%. This increase is attributable primarily to residential property price growth clearly outpacing the growth rates of household income, rents, construction costs and consumer prices.

Despite these recent upticks, the current OeNB fundamentals indicator values are still signaling that residential property prices are justified by fundamentals, given uncertainties inherent in the method of calculation. However, a renewed increase in the indicator could be considered a warning sign of a potential overheating of the Austrian residential property market.

While price pressures had inched up to +4.5% year on year (y-o-y) in the first half of 2015 in Austria, they moderated considerably in the second half (+2.4%). Compared with the first half of 2014, prices declined by 0.4% in the second half. In Vienna, property price growth had continually subsided since the fourth quarter of 2013, coming to +1.0% y-o-y in the fourth quarter of 2014. Compared with the beginning of the year 2014 (Q1: +8.1%), price increases had therefore decelerated markedly. Quarter on quarter (q-o-q), the contraction registered in the third quarter (-2.5%) was followed by a slight upward movement in the closing quarter (+1.1%).

Residential construction investment has remained inexplicably weak. Real investment in residential construction has been declining since the third quarter of 2014. Investment contracted by 3.7% and 2.3%, respectively, in the first and second quarters of 2015, and slightly less in the second half of the year (Q3: -1.0%, Q4: -0.5%, both year on year). In the first quarter of 2016, investment growth turned slightly positive (+0.5% y-o-y). Since 2010, investment in residential construction has contracted by 2%. This is in contrast to the trend in building permits, the number of which, according to Statistics Austria, has increased by 19% in terms of gross floor space and by 30% in terms of the number of apartments.

The Austrian federal government decided in 2015 to launch a housing stimulus package with the aim of creating 30,000 new apartments between 2016 and 2022. Funding under the housing stimulus package will be managed by a newly established residential construction investment bank, the WBIB (Wohnbauinvestitionsbank). The housing stimulus package is worth EUR 5.75 billion (EUR 5 billion for residential construction, EUR 750 million for residential infrastructure). It is envisaged that WBIB funding will not be substituted with regional funds earmarked for housing subsidies (co-funding rules are set out in the relevant law[2]).

As regards Austria's housing policy, regulated rents are adjusted to CPI every two years (Richtwerte – Benchmarks , for old stock built before 1945, and rented out after 1994; the term of revision was expanded from 2016 to 2017 with an Inflation Mitigation Act in 2016)[3]. Following this mechanism, the last adjustment took place in April 2014.

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 2015 the main emphasis was also put on state and regional supply-side subsidies, which aim at fostering affordable housing. Public subsidies accounted for around 0.7% of GDP, including a wide range of policy tools. The most important is the "Wohnbauförderung" (support for dwelling construction) of the Austrian provinces, with a focus on subsidies on bricks and mortar and subsidiary housing allowances. The financing system of the "Wohnbauförderung" gains its efficiency through the close interaction with the system of limited profit housing construction and additional capital market financing instruments. Social housing supply follows a generalist eligibility approach with high income limits. Hence Austrian housing policy still promotes integrated rental markets.

Other subsidy tools are minimum income schemes coming from regional social budgets, subsidies for "Bausparkassen" and "housing bonds", very limited fiscal subsidies and a reduced VAT rate for rental housing. The overall state

[1] For more details see Austrian economy fueled by growth stimuli, yet fraught with external risks. In: Monetary Policy and the Economy Q1/16, OeNB by Fenz and Rumler (2016).

[2] Regional government projects co-funded by the WBIB are subject to the applicable regional housing subsidies regulations. In these cases, the WBIB is obligated to co-fund projects under the regional housing subsidies framework.

[3] In 1994, the system of regulated rent (Richtwertmieten) replaced the system of rent that had been based on rent ranges for housing categories (Kategoriemiete). Since then, surcharges or discounts are calculated for regulated rents to take into account a rental property's furnishings or location. Regulated rent is the typical rent system applicable to housing built before 1945, and applies to all rental contracts for rental property in such buildings concluded after March 1994.

expenditure on housing is below most other European countries, such as the UK, France or Netherlands. At the same time the outputs are quite remarkable, taking into account quality of housing, affordability and aspects of social integration.

Housing is well positioned in the political agenda and is subject to most election campaigns on regional and federal level. Despite this, the plan of the current federal government to set up a new rent law failed due to unsolvable differences in basic positions.

Mortgage Funding

The growth of housing loans to households has also picked up momentum since the second half of 2015 against the background of favorable borrowing conditions. The share of foreign currency loans in outstanding housing loans continued to decline after mid-2015, but has remained high overall. The percentage of variable rate loans, which has been very high by international standards, has contracted more recently but continues to entail substantial interest rate risk.

In Austria foreign currency loans are still quite popular. Even though the currency risk for housing loans granted to households has decreased noticeably in the past years, it still remains high. In spite of the continued scaling-back of foreign currency-denominated housing loans, the share of such loans in total loans came to 23.1% in April 2015. This increase resulted from the strong appreciation of the Swiss franc following the decision of the Swiss National Bank on 15 January, 2015, to discontinue the minimum exchange rate of CHF 1.20 per euro. Almost all foreign currency-denominated housing loans outstanding are denominated in Swiss franc (close to 97%). Furthermore, the share of variable rate loans in total housing loans in Austria is very pronounced by international comparison and continues to rise, which implies with considerable interest rate risk.

	Austria 2014	Austria 2015	EU 28 2015
Real GDP growth (%) (1)	0.6	1.0	2.0
Unemployment Rate (LSF), annual average (%) (1)	5.6	5.7	9.4
HICP inflation (%) (1)	1.5	0.8	0.0
Outstanding Residential Loans (mn EUR) (2)	90,710	96,925	7,040,807
Outstanding Residential Loans per capita over 18 (EUR) (2)	12,930	13,679	17,047
Outstanding Residential Loans to disposable income ratio (%) (2)	44.7	47.2	n/a
Gross residential lending, annual growth (%) (2)	6.3	25.4	n/a
Typical mortgage rate, annual average (%) (2)	2.3	2.0	2.8*
Owner occupation rate (%) (1)	57.2	55.7	n/a**
Nominal house price growth (%) (2)	1.4	3.9	3.6

** Please note that this value is the simple average of the typical interest rate of the EU 28 countries.*

*** Please note that for the EU this data has a one year lag. For the latest available data please refer to statistical table 10.*

Sources:

(1) Eurostat
(2) European Mortgage Federation - Hypostat 2016, Statistical Tables.

Austria Fact Table

Entities which can issue mortgage loans:	Mortgage lending is mainly financed via banks and Bausparkassen.
The market share of the mortgage issuances:	Not available
Proportion of outstanding mortgage loans of the mortgage issuances:	Bausparkassen holds the biggest proportion of residential mortgages in Austria. In combined with the Saving Banks Group, Baussparkassen makes up one of the biggest banking group in Austria representing the largest markets share of the mortgage market.
Typical LTV ratio on residential mortgage loans:	According to Oesterreichische Nationalbank's 2014 Financial Stability Report, the LTV is around 60%.
Any distinction made between residential and non-residential loans:	Not available
Most common mortgage product(s):	Both variable rate loans and foreign currency loans are common mortgage products in Austria, but variable rate loans remain the most popular choose.
Typical maturity of a mortgage:	Mortgages typically have a maturity rate of 25–30 years.
Most common way to fund mortgage lending:	Mortgage funding in Austria is mainly deposit-based. According to the IMF covered bonds only made up 7.1% of the outstanding mortgages in 2008, meanwhile securitisation as a way of funding is even less popular making up only 3.1%.
Level of costs associated with a house purchase:	In addition to the cost of borrowing, one should add a mortgage fee and VAT.
The level (if any) of government subsidies for house purchases:	According to the International Union for Housing Finance, government housing subsidies accounted for 1% of the GDP in 2010. The Wohnbauförderung, the so-called subsidiary scheme, mostly support low-income and some first time buyers.

Belgium

By Frans Meel, Union Professionnelle du Crédit

Macroeconomic Overview

According to the annual report of the National Bank of Belgium, economic expansion in 2015 continued at a moderate pace in Belgium, much as in the rest of the euro area, despite a minor slowdown towards the end of the year. Y-o-Y GDP grew by 1.4%, at approximately the same speed as in 2014 (1.3%) and slightly below the euro area's 1.7%.

Economic activity continued to pick up and gradually broadened to include the whole of the Belgian economy. Although economic activity remained positive throughout 2015, there was a slowdown in the third quarter. As growth prospects were revised downwards in several countries, uncertainty regarding the direct or indirect impact on foreign demand for goods and services rose and volatility increased in the financial markets. Towards the end of the year, confidence picked up again.

Value added of the construction industry did not move ahead as strongly as it had the previous year. The winter months were less mild and held back growth somewhat in the first quarter.

The deterioration in the economic climate during the course of the year was very short-lived and so, it barely had any impact on employment in 2015. During the summer, there was a brief slowdown in the use of temporary workers, which closely reflects fluctuations in the business cycle. However, overall, labour demand was primarily bolstered by the gradual strengthening of economic activity and years of moderate developments in labour costs.

In total, there were 37,500 more people in employment in 2015, which is notably more than in 2014. Salaried employment contributed most to this growth, compared with only a minor recovery in 2014. Government austerity measures have served to reduce the number of workers in public administration and education in 2015. Employment numbers were also boosted by higher numbers of self-employed workers.

In 2015, inflation measured by the year-on-year change in the harmonised index of consumer prices (HICP) stayed low at 0.6%. This was mainly due to crude oil prices, which in fact pushed inflation numbers into negative territory between December 2014 and March 2015. The downtrend in inflation recorded since mid-2011 nevertheless came to an end, after having fallen for three years in a row, from 3.4% in 2011 to 0.5% in 2014. A number of measures introduced by the federal and regional governments pushed up inflation. Electricity distribution rates have been raised, for instance, while some of the measures taken to finance a tax shift had already exerted a major influence on prices of energy products – mainly electricity – and alcohol. Regulated prices likewise affected inflation, in particular services prices.

In 2015, economic activity was driven among other things by more robust household spending. Reaching the fastest increase since 2010 at 1.2%, private consumption was a key driver of higher economic activity in 2015 and recorded very robust growth at the start of the year, although there was a slowdown in the second half of the year. Total private consumption rose virtually in line with gross disposable income, which added 1.8% in nominal terms and 1.2% in real terms. Government consumption expenditure added only 0.5% in volume terms in 2015. Although similar to the pace of growth in the previous year, this remains historically low compared with an average rise of around 1.5% since 2000.

Investment in housing came down by 0.1% in 2015 even though mortgage rates kept falling and people's fears of losing their jobs diminished on average. This decline stands in contrast to 2014, when households had been very active in the property markets. However, the decline can be explained by the fact that, due to the change of tax treatment of mortgage loans in the northern part of the country from 2015 onwards, Flemish residents put in place their investment plans before the end of the year 2014. The contraction in the first half of 2015 reflects this backdating shift.

Housing Market

The property market in Belgium has not experienced any severe adjustment in the wake of the financial crisis since 2009, unlike the markets in Spain and Ireland, in particular, or, beyond the euro area, the United States. In fact, viewed over fifteen years, house prices have generally followed a pattern comparable to that seen in most other European countries, but the increase has been steady, with no exaggerated boom and no abrupt correction. Even at the height of the financial crisis, the fall in house prices was modest and short-lived. Prices began to rise again in 2010 and continued to rise in the course of the following years.

According to figures published by the Fédération Royale du Notariat Belge (the Belgian Notary Federation), the average prices of houses stabilised (+0.05%) in 2014. The average purchasing price for a house amounted to EUR 234,699. The average price of apartments kept rising slightly (+1.90%) and reached approximately EUR 205,148.

Mortgage Market

The outstanding amount of residential mortgage lending reached about EUR 208 billion at the end of 2015 (against EUR 197 billion at the end of 2014).

In 2015, the number of new mortgage credit contracts was almost 241,000 for a total amount of almost EUR 26 billion (refinancing transactions not included). The number of mortgage credits granted rose by 4%, whereas the amount of credit went up by 1.5%.

The number of credits for the purpose of purchasing went down by 3.8%. The number of construction credits also went down by more than 16%. The number of credits granted for renovation (+21%) and those for other purposes like a parcel of land, a garage, etc. (+39.5%) however increased substantially.

The considerable growth of credit production in 2014 can be explained to a large extent by the exceptional figure for the fourth quarter as a consequence of the change in housing taxation in Flanders as of 2015, but, by contrast, the 2015 increase was spread over the last three quarters of the year. This time again, the increase in renovation credits must be seen in the light of the tax change, i.e. the less favourable VAT scheme, as of 2016, for renovation of houses less than 10 years old. As a consequence, a very large number of households tried to finish their renovation work before the end of the year.

The number of mortgage credit arrears of Belgian private persons remains low, as compared to that in the other European countries, and for years, it has been about 1.2% of the number of credits outstanding.

The average amount of mortgage loans for "purchases" stood at approximately EUR 145,100 at the end of 2015, about EUR 3,400 (or almost 2.5%) more than at the end of 2014 (EUR 141,700). The average amount of mortgage loans for renovation purposes increased to around EUR 42,500.

In 2014, the market share of new fixed interest rate loans and loans with initial fixed rate for more than ten years represented about 89% of newly provided loans. The share taken up by new loans granted with an initial fixed rate for 1 year, decreased to approximately 0.6% of the credits provided. The number of credits with an initial period of variable interest rate between 3 and 5 years also showed a decrease (± 10% of the credits provided).

Market Prospects

In the first quarter of 2016, the number of mortgage credit contracts amounted to 52,000 for a total amount of almost EUR 6 billion, external refinancing transactions not included. This means an increase of more or less 14% in the number of credits granted all through the first quarter, as compared to last year's figure. The corresponding credit amount had an even higher increase of 32%.

As for credit purposes, the situation as compared to that of 2015 shows an increase in the number of credit contracts for house purchasing (+33%), for construction (+50%) and for buying and renovating a house (+6%), whereas the number of house renovation credits (-16%) decreased.

It should be pointed out however, that the figures for the first quarter of 2016 are compared to those of the first quarter of 2015, when the figures were subdued due to the reduction of the Flemish housing bonus at the beginning of 2015, which induced many borrowers to anticipate the financing of their projects (purchasing and building) at the end of 2014.

	Belgium 2014	Belgium 2015	EU 28 2015
Real GDP growth (%) (1)	1.3	1.4	2.0
Unemployment Rate (LSF), annual average (%) (1)	8.5	8.5	9.4
HICP inflation (%) (1)	0.5	0.6	0.0
Outstanding Residential Loans (mn EUR) (2)	197,327	207,590	7,040,807
Outstanding Residential Loans per capita over 18 (EUR) (2)	22,118	23,147	17,047
Outstanding Residential Loans to disposable income ratio (%) (2)	84.6	87.7	n/a
Gross residential lending, annual growth (%) (2)	17.4	22.0	n/a
Typical mortgage rate, annual average (%) (2)	3.1	2.5	2.8*
Owner occupation rate (%) (1)	72.0	n/a	n/a**
Nominal house price growth (%) (2)	1.7	2.1	3.6

** Please note that this value is the simple average of the typical interest rate of the EU 28 countries.*

*** Please note that for the EU this data has a one year lag. For the latest available data please refer to statistical table 10.*

Sources:

(1) Eurostat
(2) European Mortgage Federation - Hypostat 2016, Statistical Tables.

Belgium Fact Table

Entities which can issue mortgage loans:	Banks, insurance companies and other types of lenders that have been authorised (licence) or registered by the supervising authority FSMA to grant mortgage credit according to the Belgian law on mortgage credit.
The market share of the mortgage issuances:	Based on the membership of our Association (UPC), representing ± 90% of the total Belgian market, the following market shares can be approximatively given in amount: • Banks: ± 96.1% • Insurance companies: 1.7% • Other types of lenders: 2.2% N.B.: these figures do not take into account the social credit lenders.
Proportion of outstanding mortgage loans of the mortgage issuances:	e credit lenders and the end-of-year outstanding amount of mortgage loans was published until 2013 on an annual basis by the supervising authority FSMA. This publication has been stopped since then. On the basis of our membership, the following market shares can be approximatively given in amount: • Banks: ± 95.0% • Insurance companies: 1.4% • Other types of lenders: 3.6%
Typical LTV ratio on residential mortgage loans:	According to the Financial Stability Review issued by the National Bank of Belgium, the average loan-to-value ratio was about 80% in the period 1996-2006. It dropped to about 65% (and even below that) in the years 2007-2014. However, this average loan-to-value ratio has to be interpreted with caution, as the data are the result of a very wide distribution of loan-to-value ratios at origination. For the 2015 vintage, 30% of the volume of new mortgage loans was still made up of loans with an LTV ratio above 90%.
Any distinction made between residential and non-residential loans:	Residential purposes means that it is for private housing (consumers). The Belgian mortgage credit law applies to mortgage credit as funding for acquiring or safeguarding immovable real rights granted to a natural person chiefly acting for a purpose deemed to lie mainly outside the scope of his commercial, professional or crafting activities and having his normal place of residence in Belgium, at the moment when the agreement is being signed, a) either by a lender having his principal place of business or chief residence in Belgium b) or by a lender having his principal place of business or chief residence outside Belgium, provided a special offer or publicity had been made in Belgium before the agreement was signed and the actions needed for signing the agreement have been undertaken by the borrower in Belgium.
Most common mortgage product(s):	The most common mortgage credit product is a loan with a term of approximately 20 years, a fixed interest rate throughout the full loan term and a fixed amount of monthly instalments.

Typical maturity of a mortgage:	The average maturity of a mortgage loan at origination is estimated at 22.5 years. Since 2007, lenders have continued to tighten customers' access to mortgage loans with long maturities. The percentage of loans granted with a maturity of more than 25 years has plummeted from 23% in 2007 production volumes to only 2% in 2015. At the same time, the share of loans with a maturity between 20 and 25 years in mortgage loan vintages remained relatively stable while the share of loans with a maturity between 15 and 20 years clearly increased. These trends seem to have influenced the average maturity level of total outstanding stock as from 2013; by the end of 2015, 11% was associated with initial maturities above 25 years, down from 20% in 2012.
Most common way to fund mortgage lending:	Most funding still comes from deposits (cf. market share of banks in mortgage loans production). A few major lenders have started issuing covered bonds.
Level of costs associated with a house purchase:	The registration duty in Flanders is 10% of the purchase price (5% in case of small properties). In Wallonia/Brussels, the registration duty amounts to 12.5% of the purchase price (6% in case of small properties), but the first EUR 45,000 of the purchase price is exempt from registration tax. There is also a registration duty on the amount of the mortgage loan covered by a mortgage registration.

The level (if any) of government subsidies for house purchases:	In Belgium, social housing applies to both house purchase and renting. However, across the regions (Flanders, Wallonia and Brussels) the schemes differ, with each region pursuing its own policy. The tax regimes differ across the regions: • In Flanders there is a "housing bonus" system, which allows the owner of a single house bought in 2016 to obtain deductions (40% tax relief) for construction/ purchase/ renovation up to the total amount of EUR 1,520. The deduction consists of interest, capital repayments and life insurance premiums which have been paid in connection with the mortgage. During the first 10 years of the mortgage, the level of deduction will increase up to EUR 2,280 (= + EUR 760). People with 3 children or more are entitled to an extra EUR 80. If one buys a second house, the level of deduction goes down to EUR 1,520 (tax relief of 40%). • In Wallonia, a new system, the so-called "Chèque habitat", applies from 2016 on. More information is available on http://www.wallonie.be/fr/actualites/cheque-habitat-le-nouvel-avantage-fiscal-lie-au-logement • In the Brussels region, a new system will apply from 2017 on. In the meantime, a tax reduction of 45% applies on the maximum amount of EUR 2,280 + EUR 760 during the first 10 years of the mortgage (+ EUR 80 if 3 children or more).

Bulgaria

By Maria Pavlova and Daniele Westig, European Mortgage Federation – European Covered Bond Council

Macroeconomic Overview

GDP growth in 2015 was at 3% due to a strong rise in net exports and public investment. In accordance with the findings of the European Commission as outlined in the European Economic Forecast for spring 2016, GDP is expected to drop to 2% in 2016 due to weakened absorption of EU funds throughout the year, but it will recover to 2.4% in 2017 as a result of the strengthened domestic demand.

In addition, quarterly data on consolidated fiscal programme performance indicate that the cash-based budget deficit was estimated to account for 2.9% of GDP in 2015 compared to 3.7% in 2014. In overall terms, public investment contributed significantly to the growth in gross fixed capital formation. The country had negative inflation of -1.1% in November 2015, down from -1.6% in 2014, according to Eurostat.

Regarding the labour market, the employment rate continued to rise from 65.1% in 2014 to 68.8% in Q3 2015 and was mainly driven by the growth in the agricultural sector and the slight improvement within the services sector. The unemployment rate fell and stood at 9.2% in 2015, which is in line with the EU average.

Housing and Mortgage Markets

The housing market was on the path to recovery in 2015 due to increased property demand and higher investor confidence. There was an 8.9% y-o-y increase in the permits issued for construction of dwellings, reaching 17,294 units in 2015. However, there was a 21.8% y-o-y decrease in the number of dwellings completed in 2015 reaching 7,806. These figures are still far away from the peaks reached in 2007 for permits and in 2009 for completions.

The size of the Bulgarian mortgage market was equivalent to 8.0% of GDP in 2015, compared to 8.2% in 2014.

Furthermore, interest rates continued to decline with the average mortgage interest rate for BGN-denominated loans equalling 5.3% in January 2016, compared to 6.2% and 7.0% in January 2015 and 2014, respectively. As a comparison, a similar trend was observed with respect to the average mortgage interest rate for Euro-denominated loans which equalled 5.9% in January 2016, compared to 6.9% and 7.6% in January 2015 and 2014, respectively.

Mortgage Funding

Regarding the legal framework of the mortgage bond market, the Law on Mortgage-Backed Bonds from 2000 provides the legal basis for the terms and procedures on issuance and redemption of mortgage-backed bonds. In particular, mortgage-backed bonds are defined as securities issued by banks on account of their loan portfolio and secured by one or more mortgage loans, whereas outstanding mortgage-bonds are defined as being bonds covered by mortgage loans of the issuing bank, i.e. principle cover.

It has been reported that the issuance of mortgage-backed bonds in Bulgaria after the adoption of the aforementioned legislative rules amount to 29 in total, with the last issuance being in 2014. Overall, the volume of mortgage-backed bonds issued totals EUR 273.3 million and originates from 11 issuing banks (now 10 banks since the merger of MKB Unionbank and First Investment Bank). As of the 31st of December 2015, outstanding mortgage bonds amounted to EUR 5.0 million.

There are no specific legal requirements in Bulgaria regarding the lending risk assessment ratio, i.e. LTV ratio that financial institutions and other lenders evaluate before a given mortgage is approved. The LTV specificities are usually defined in the lending policies of individual banks and depend on banks' own risk calculations and internal rules.

Notes:

Source: National Statistical Institute;
Source: Bulgarian National Bank;
Source: European Mortgage Federation-European Covered Bond Council.

	Bulgaria 2014	Bulgaria 2015	EU 28 2015
Real GDP growth (%) (1)	1.5	3.0	2.0
Unemployment Rate (LSF), annual average (%) (1)	11.4	9.2	9.4
HICP inflation (%) (1)	-1.6	-1.1	0.0
Outstanding Residential Loans (mn EUR) (2)	3,499	3,522	7,040,807
Outstanding Residential Loans per capita over 18 (EUR) (2)	577	585	17,047
Outstanding Residential Loans to disposable income ratio (%) (2)	n/a	n/a	n/a
Gross residential lending, annual growth (%) (2)	9.7	39.7	n/a
Typical mortgage rate, annual average (%) (2)	6.6	5.8	2.8*
Owner occupation rate (%) (1)	84.3	82.3	n/a**
Nominal house price growth (%) (2)	1.4	2.8	3.6

** Please note that this value is the simple average of the typical interest rate of the EU 28 countries.*

*** Please note that for the EU this data has a one year lag. For the latest available data please refer to statistical table 10.*

Sources:

(1) Eurostat
(2) European Mortgage Federation - Hypostat 2016, Statistical Tables.

Bulgaria Fact Table

Entities which can issue mortgage loans:	There are no specialised mortgage banks in Bulgaria. All commercial banks have mortgage credits in their portfolios. There is no provision for only banks to provide mortgages.
The market share of the mortgage issuances:	Seven banks had disbursed about 85% of all mortgage loans. DSK Bank: 31%; United Bulgarian Bank: 20%; Bulbank: 11% (stand 2005).
Proportion of outstanding mortgage loans of the mortgage issuances:	Not available
Typical LTV ratio on residential mortgage loans:	The average LTV ratio is 70 per cent for properties under €100,000, 75 per cent for properties over €100,000 and usually around 60 to 65 per cent for brand new properties.
Any distinction made between residential and non-residential loans:	Not available
Most common mortgage product(s):	The most common mortgage product is a loan with variable rates, which are updated at the bank's convenience.
Typical maturity of a mortgage:	The average maturity of mortgage loans in Bulgaria is 18 years.

Most common way to fund mortgage lending:	Funding of mortgage loans is based largely on deposits. Although mortgage bonds are being issued, they are not used as a primary funding source by banks, although this is changing and mortgage bond issuances are competing more and more with funding from deposits.
Level of costs associated with a house purchase:	A variety of taxes and fees are payable when you buy a property in Bulgaria, most of which vary according to the price but which may also depend on whether the property has land attached, whether you are buying through an agent (as opposed to buying direct from the vendor), whether you have employed a lawyer and surveyor and whether you employ a translator. Municipal Tax: 2% Purchase price; Property tax: 0.15% Purchase price. Notary: depending on purchase price up to Lev 3,000; Selling Agent fee: up to 10% purchase price; VAT: if for residential and residential property purposes it is exempted, if not, it is 20% (VAT registered entities are entitled to a refund)
The level (if any) of government subsidies for house purchases:	In 2013 little less than 1.5% of GDP went into government support of housing and community amenities and housing development.

Croatia

By Alen Stojanović and Branka Tuškan, University of Zagreb, Faculty of Economics and Business, Department of Finance

Macroeconomic Overview

After six years of negative macroeconomic trends and falling house prices, the Croatian economy is finally improving and the property market is slightly recovering. Despite the noticeable improvement in the last few years, most macroeconomic indicators and trends have still not reached pre-crisis levels and changes are sluggish. In general, annual GDP turned positive in 2015 and reached 1.6% (-0.4% in 2014). Considerable GDP growth was recorded in the third quarter of 2015, primarily under the influence of a successful tourist season. Considering public finance, according to the data of the European Commission, the fiscal deficit shrank from 5.6% in 2014 to 4.2% in 2015 with respect to GDP. This was thanks to a strong fiscal consolidation in 2015, favourable developments on the revenue side of the budget and stagnation of the general government expenditures on the other side of budget. The general government debt to GDP ratio in 2015 remained almost unchanged (86.7% in 2015, 86.5% in 2014), while the gross external debt (as a percentage of GDP) decreased from 108.4% in 2014 to 103.7% in 2015. After years of negative levels or levels near 0%, in 2015 the current account balance (as a percentage of GDP) reached 5.2%. At the end of 2015, favourable developments in the labour market continued and the registered unemployment rate decreased from 19.4% at the end of 2014 to 17.6%, while the unemployment rate according to the ILO definition (persons above 15 years of age) decreased from 17.3% in 2014 to 16.3% in 2015. The inflation rate in 2015 was -0.3% (0.2% in 2014) according to the European Commission. The annual rate of consumer price inflation was negative in 2015, mainly as a result of the fall in the price of crude oil. The average rate of change of the consumer price index declined from -0.2% in 2014 to -0.5% in 2015. (*Croatian National Bank*)

Housing and Mortgage Markets

Housing market

After years of house price falls, in 2015 Croatia's property market recovered slightly, though fewer new dwellings were sold. Since the beginning of the credit crunch in 2008 when residential construction activity started to fall, the construction sector has not recovered. More concretely, 6,950 building permits (dwellings) were issued in 2015, which represents a considerable contraction of 10% in comparison to 2014 when 7,743 building permits were issued, while the useful floor area of dwelling permits dropped 8% to 650,126 square metres over the same period (*Croatian Bureau of Statistics*). In terms of type of construction, approximately 70% of building permits were issued for the new construction and 30% for the reconstruction, taking into consideration that nearly 70% of residential buildings were built before 1980, and about 92% of Croatian households own a house or apartment, according to *Zagreb nekretnine Ltd (ZANE)*.

For the first time, in 2015 most building permits (dwellings) were issued in the County of Primorje-Gorski Kotar, and not in Zagreb, has been the case in all previous years observed. The capital city took second place in 2015, with 995 building permits issued. From an average number of 24,366 annual completions in the period 2006-2008, the number of completed dwellings fell to 11,792 units in 2012, to 7,805 units (3,841 residential buildings) in 2014, according to the last available data. Equally, the total number of new dwellings sold in Croatia in 2015 significantly decreased by 31%, to 1,672 units with respect to in comparison to 2014 (2,410). Of these, about 50% were in the capital, while the remaining 50% were in all other counties. During 2015, the average price of new dwellings sold in Croatia was HRK 10,688 (or EUR 1,421) per square metre, which represents a growth of 1.6% in comparison to 2014 (HRK 10,524). The calculation of these average prices (per square metre of new dwellings sold) takes into account the prices of dwellings constructed by trade companies and other legal entities but also those constructed under the government supported "Publicly Subsidised Residential Construction Programme". It should be noted that the price level and the amount sold by the trade companies, and by the programme supported by the government varies greatly. Indeed, the average price of sold new dwellings constructed by trade companies and other legal entities in 2015 was HRK 11,378 per square metre (1,381 units sold) while those constructed under the "Publicly Subsidised Residential Construction Programme" was significantly lower, HRK 7,748 per square metre (291 units sold). In the capital, Zagreb, the total number of new dwellings sold in 2015 also decreased, to 839 units in comparison to 2014 (1,128), which represents a fall by 26%. Likewise, the average price of new dwellings sold dropped slightly by 1.3%, to HRK 11,797 (EUR 1,568) per square metre in 2015, in comparison to 2014 (HRK 11,958). In all other settlements, the total number of new dwellings sold surged by 35%, to 833 units in 2015 (1,282 units in 2014) and the average price of new dwellings sold rose by 3.6% to HRK 9,617 (EUR 1,278) per square metre over the same period (HRK 9,280 in 2014). (*Croatian Bureau of Statistics*)

Mortgage market

Croatia's mortgage market has developed significantly during the past decade. Despite further steady decreases in the relative importance of commercial banks in the total Croatian financial sector assets, they still have a dominant role in housing finance in general. At the end of 2015, nearly 73% of the total Croatian financial sector assets was represented by banking sector assets, valued HRK 396.1 billion (EUR 52.1 billion). Considering only the market oriented housing finance system, the dominance of banks is even more evident. In 2015 banks' housing loans made up 95% of all housing loans granted in Croatia. The remainder was granted by housing saving banks. Total outstanding housing loans in 2015 had a value of HRK 55.8 billion (EUR 7.3 billion), which represents a decrease of 3.3% in comparison to 2014 (HRK 57.7 billion or EUR 7.6 billion). Although still far below the Euro area average, in 2015 housing loans in Croatia took a 49% share of total loans granted to the household sector, or 14% of the total credit institutions asset. (*Croatian National Bank*)

Most commercial banks in Croatia offer housing loans for periods of up to 30 years, with LTV ratios of up to 80%, mostly with variable interest rates and with different types of insurance and collateral. Besides common housing loans, they also offer specialised housing loans for younger people, reconstruction, furnishing, etc. About 90% of total outstanding housing loans are HRK denominated and indexed to foreign currency (at the end of 2015 nearly 70% were indexed to EUR and 20% to CHF, while the remaining 10% were not indexed to any foreign currency). The average interest rate of housing loans in HRK indexed to foreign currency (new business) in 2015 was 5.07% compared to 5.05% at the end of 2014. At the beginning of 2015 (election year), the former government intervened in the banks with a CHF portfolio as a consequence of considerable CHF/HRK exchange rate growth and problems caused with borrowers' debt repayments. In order to help borrowers, the government regulated an immediate CHF/HRK exchange rate fixation for a one-year long period and a possibility of converting CHF loans to EUR in that period, and forced banks to partially write-off of household loans in CHF. As a result of such political intervention into the banking business, banks complained to the international court and the final consequences of this are still not known at the time of writing. Regarding the quality of granted housing loans, in 2015 there continued to be an increase of the average share of partly recoverable and fully irrecoverable housing loans of 9.7% (compared to 8.8% at the end of 2014), mostly due to the further decrease of quality of existing CHF housing loan portfolios (16.5% in 2015/13.3% in 2014 partly recoverable and fully irrecoverable housing loans). For housing loans indexed to EUR, this share at the end of 2015 was 6.0% (5.6% at the end of 2014). (*Croatian National Bank*)

Housing saving banks were introduced to the Croatian financial market in 1998, but they have remained relatively unchanged, with a largely symbolic role in the market-oriented housing finance system since then. In that sense, housing saving banks' asset' represent less than 2% of credit institutions' total assets. Their share in total granted housing loans was only about 5% in 2015 (6% in 2014). In Croatia, no other financial institutions are involved in market-oriented housing finance.

Mortgage Funding

In 2015, there were no changes in the sources of housing finance. Croatian banks and housing saving banks were still primarily depositary institutions, which do not fund loans via mortgage covered bonds or mortgage backed securities. The latest data available, from 2014, shows that in Croatia mortgages were 87.4% funded by deposits, 11.2% by loans and 1.4% by other sources. In that, approximately 13% of loans and deposits were funded by foreign parent banks. The reasons for such a funding structure are their continuous and permanent dominance in the financial sector of traditional household savings and external financing activities. At the same time, there is still present sufficient funding oriented mostly to deposits but there is also still an absence of confidence in the securities market, as well as slower development of other financial institutions. Frequent economic and banking crises as well as the absence of adequate regulation, which would make the introduction of advanced housing financing techniques possible, further emphasise the reasons for such a funding structure and the structure of the housing finance system as a whole. Nevertheless, there are indications that in the near future the conditions for the introduction of covered bond legislation could be met, since this financing instrument is considered to be the second most important funding source in the EU after deposits.

	Croatia 2014	Croatia 2015	EU 28 2015
Real GDP growth (%) (1)	-0.4	1.6	2.0
Unemployment Rate (LSF), annual average (%) (1)	17.3	16.3	9.4
HICP inflation (%) (1)	0.2	-0.3	0.0
Outstanding Residential Loans (mn EUR) (2)	7,865	7,734	7,040,807
Outstanding Residential Loans per capita over 18 (EUR) (2)	2,266	2,234	17,047
Outstanding Residential Loans to disposable income ratio (%) (2)	27.5	26.7	n/a
Gross residential lending, annual growth (%) (2)	n/a	n/a	n/a
Typical mortgage rate, annual average (%) (2)	5.1	5.1	2.8*
Owner occupation rate (%) (1)	89.7	n/a	n/a**
Nominal house price growth (%) (2)	0.9	1.6	3.6

** Please note that this value is the simple average of the typical interest rate of the EU 28 countries.*

*** Please note that for the EU this data has a one year lag. For the latest available data please refer to statistical table 10.*

Sources:

(1) Eurostat
(2) European Mortgage Federation - Hypostat 2016, Statistical Tables.

Croatia Fact Table

Entities which can issue mortgage loans:	Commercial banks, housing saving banks.
The market share of the mortgage issuances:	Commercial banks dominate.
Proportion of outstanding mortgage loans of the mortgage issuances:	Commercial banks: 94%, housing saving banks: 6%
Typical LTV ratio on residential mortgage loans:	70-80%
Any distinction made between residential and non-residential loans:	Residential purposes – housing loans, non-residential purposes (but collateralised by mortgage) – mortgage loans.
Most common mortgage product(s):	Housing loans.
Typical maturity of a mortgage:	20-30 years.
Most common way to fund mortgage lending:	Deposits
Level of costs associated with a house purchase:	Real property transfer tax (5% of market value, exception: 1st property); transaction costs (fees and commissions): up to 2% of market value, other costs (agency intermediation, public notary, etc.): 2-4% of market value.
The level (if any) of government subsidies for house purchases:	Low (in the part of government supported “Publicly Subsidized Residential Construction Program” and through the governmental incentives for housing savings).

Cyprus

By Ioannis Tirkides, Bank of Cyprus, Economic Research

Macroeconomic Overview

Following three consecutive years of recession, the economy recovered in 2015, growing by 1.6% in real terms. The outlook for the medium term is positive according to current forecasts from the International Monetary Fund and the European Commission.

Growth in 2015 was driven by domestic demand, while net exports had a negative contribution as a result of stronger import growth. Private consumption increased by 1.9% and government consumption by 1.1%. The increase in private consumption was based on strong tourism and a revival in consumer confidence. Likewise, total investment increased by 9.7%, where fixed investment increased by 14% and changes in inventories were negative.

On the production side, the recovery has been led by the services sectors, including primarily tourism, trade, financial, professional and education services. In total, the services sectors grew by 1.8% in 2015. Manufacturing activity contributed only marginally, and was more than offset by the continued contraction of the construction sector.

Average consumer prices dropped by 2.1% in 2015, driven mainly by the categories of housing, water and electricity as well as transport services. The decline in prices reflects mainly the drop in commodity and energy prices as well as the disinflation of the economy as a result of the austerity measures and the internal devaluation that accompanied the economic adjustment programme of 2013-2016.

In the labour market, the average unemployment rate dropped to 15% in 2015 from 16.1% in the prior year. The volume of employment started to stabilise in 2015 on a quarterly basis, and the average employment rate increased to 62.7% from 62.1% in the prior year.

The improvement in the economy contributed to the government's outperformance of its fiscal targets. Excluding banking recapitalisation costs, the government posted a primary surplus of 2.8% of GDP in 2015 where the headline budget was actually balanced. Gross public debt probably reached its peak in 2015 at 108.9% of GDP.

Housing and Mortgage Markets

Housing market

There is a high tendency for home ownership in Cyprus. According to Eurostat, the ratio of owner-occupied homes in Cyprus was 72.9% in 2015 down slightly from 74% in the previous year and has been relatively stable over an eight-year period.

Construction activity peaked in 2008 and declined steeply thereafter. According to the Cyprus Statistical service, gross output in construction rose to a high of 22.7% of GDP at current market prices in 2008, compared with a long-term average ratio of about 15%. Likewise, value added in construction rose to a high of 11.5% of GDP in 2008, compared with a long-term average ratio of 8.5% of GDP. New construction of residential buildings rose to a high of 8.4% of GDP in 2008, compared with a long-term average of about 6% of GDP. In 2013, for which data is available, gross output in construction dropped to 9.9% of GDP, value added decreased to 4.3% of GDP and new construction of residential buildings dropped to 2.1% of GDP.

The number of completed dwellings was at a peak in 2008 at 18,195 compared with a long-term average of 8,600. The number of completed dwellings in 2013 was 3,833. The number of dwellings relative to population continued to increase over time and the ratio of persons per dwelling dropped from 2.6 in 1995 to 1.9 in 2013.

Authorised building permits peaked in 2006 at 9,794, compared with a long-term average of about 7,000. Building permits dropped to a low of 4,933 in 2014 and rose to 5,014 in 2015 for an annual increase of 1.6%. Building permits in terms of volume on the other hand, increased by 12% in 2015 from the prior year.

Based on the Central Bank's residential property index, prices peaked in the third quarter of 2008 in Cyprus as a whole as well as in each of the provinces except for Limassol, where prices peaked in the fourth quarter of the same year. Since then, residential property prices have declined, and this decline has continued throughout the period until the end of 2015 for which data is available. Total residential prices dropped by 31.3% from their peak level at the end of 2015, down by 32.6% for apartments and by 30.6% for houses. Total yearly average residential prices dropped 4.3% in 2015 from the prior year. Residential prices dropped 5.3% in Nicosia, 4% in Limassol, 4.6% in Larnaca, 2.7% in Paphos and 1.4% in Famagusta.

Prices in Famagusta and Paphos, which are tourist areas, are more influenced by domestic demand for resort houses and apartments as well as by foreign demand. Overall, the main determinants of residential property prices are real economic activity as measured by the rate of change of real GDP and by bank credit expansion.

Transactions and transfers of properties decreased significantly since the peak of the property market in 2008, but started to recover in 2014-2015. Specifically, the total number of properties transferred in 2015 was up by 22% from the prior year and their value similarly up by 29.4%. This follows increases of 9.2% and 25.1% for the number of properties and for property value respectively in 2014.

Mortgage markets

The mortgage market is relatively large. It declined during the years of recession when banks were actively deleveraging, but started to stabilise in 2015. Total housing loans outstanding at the end of 2015 were EUR 11.6 billion, which corresponds to 54.1% of total household loans outstanding and 22.7% of total loans to residents. The ratio of mortgage loans to GDP at the end of 2015 was 66.9%. Total mortgage loans outstanding declined by just 0.1% in 2015 from the prior year and remained 8.2% below their highest amount which was at the end of 2012.

Mortgage lending rates have been declining in recent years. The average lending rate for new mortgages in 2015 was 4.2% compared with 5.5% in 2012. On a monthly average basis, mortgage lending rates dropped to 3.9% in December 2015 compared with 5% a year earlier in December 2014.

Loan performance of households and non-financial corporations deteriorated markedly in the aftermath of the bail-in strategy for recapitalising banks in 2013 and the deep recession that started in the second half of 2011 and ended in 2014. Non-performing exposures, as defined by the European Banking Authority, rose sharply in the period. Whilst there are no separate statistics for the performance of mortgages themselves, the performance of household loans, more than half of which are mortgages, is also indicative of the performance of mortgages as well.

Thus, total household loans at the end of 2015 were EUR 23.1 billion or approximately 133% of GDP. There was a decline of loans outstanding of about 6% compared to the prior year. Non-performing exposures of the household sector were largely unchanged in the year. However, because of the deleveraging that occurred, the non-performing exposure ratio increased to 55% of gross loans in 2015 from 52% in the prior year. Mitigating this large ratio of non-performing exposure are the extent of corresponding provisioning and the amount of restructured facilities included in those exposures; specifically, as at the end of 2015 provisions amounted to 37.8% of non-performing exposures in the household sector. At the same time, 32.1% of non-performing exposures in the household sector consisted of restructured facilities.

Mortgage Funding

Bank funding in Cyprus is dependent primarily on customer deposits. There is currently one covered bond outstanding as at the end of 2015 with a total size of EUR 650 million. No new issuances of covered bonds occurred in 2015. The securitisation legislation is expected to be finalised during 2016, providing an additional tool for utilising banks' mortgage books to obtain funding.

	Cyprus 2014	Cyprus 2015	EU 28 2015
Real GDP growth (%) (1)	-2.5	1.6	2.0
Unemployment Rate (LSF), annual average (%) (1)	16.1	15.0	9.4
HICP inflation (%) (1)	-0.3	-1.5	0.0
Outstanding Residential Loans (mn EUR) (2)	11,655	11,644	7,040,807
Outstanding Residential Loans per capita over 18 (EUR) (2)	16,962	17,180	17,047
Outstanding Residential Loans to disposable income ratio (%) (2)	103.9	101.3	n/a
Gross residential lending, annual growth (%) (2)	-62.5	22.7	n/a
Typical mortgage rate, annual average (%) (2)	4.4	3.3	2.8*
Owner occupation rate (%) (1)	72.9	n/a	n/a**
Nominal house price growth (%) (2)	-8.8	-4.3	3.6

** Please note that this value is the simple average of the typical interest rate of the EU 28 countries.*

*** Please note that for the EU this data has a one year lag. For the latest available data please refer to statistical table 10.*

Sources:

(1) Eurostat
(2) European Mortgage Federation - Hypostat 2016, Statistical Tables.

Cyprus Fact Table

Entities which can issue mortgage loans:	Financial institutions (banks and cooperative credit institutions)
The market share of the mortgage issuances:	100%
Proportion of outstanding mortgage loans of the mortgage issuances:	Banks: 70% and coops: 30%
Typical LTV ratio on residential mortgage loans:	80%
Any distinction made between residential and non-residential loans:	Loan purpose & property use
Most common mortgage product(s):	Euro-denominated loans with bank base rate + spread
Typical maturity of a mortgage:	Average 25 years
Most common way to fund mortgage lending:	Customer deposits
Level of costs associated with a house purchase:	Transfer Tax Title Deeds Stamp Duty Mortgage Fee Land Tax
The level (if any) of government subsidies for house purchases:	None

Czech Republic

By Lukáš Kučera, Česká spořitelna, a.s.

Macroeconomic Overview

Domestic GDP increased by 4.5% in 2015, making the Czech economy one of the fastest-growing economies in Europe. The economic growth was fuelled by a combination of domestic factors. In the area of economic policy, these included easy monetary conditions and increased growth in government investment, as well as EU-financed public investment, which reached record highs in 2015.

On the expenditure side, household consumption is the main component of GDP and accounts for 49% of the total, followed by gross fixed capital formation (25%) and government expenditure (19%). Exports of goods and services account for 84% of GDP while imports account for 77%, adding 7% of total GDP.

Due to high GDP growth, the unemployment rate dropped to 4.5% as at the end of 2015 and is at one of its lowest points in the past decade.

The average inflation in the Czech Republic in 2015 was 0.3%, which, despite the efforts of the Czech National Bank, was still well below the desired threshold of 2%.

The general government deficit has been improving significantly since 2009. The decreasing trend is driven mainly by a rising nominal GDP in comparison to the rate of growth in nominal debt.

Housing and Mortgage Markets

According to statistics from the real estate sector, the average bid price of apartments increased by 7% during the last year.

Traditionally, the greatest demand is in large cities (especially Prague, in some cases also Brno). Last year, 6,500 new apartments were sold in Prague. According to the Czech Statistical Office, the construction of only 3,949 apartments in residential buildings was started, which seems to be insufficient. Housing prices are beginning to increase significantly in the other regions of the country as well. The growth of prices in the capital city is also driven by the higher offer of luxury properties and the capital's attractiveness to foreign investors.

Demand for property was mainly determined by economic growth, record low interest rates as well as by demand created by people who have surplus funds and can therefore undertake an investment in real estate. According to estimates, last year about one-fifth of dwellings were bought as an investment.

The volume of loans provided in the year 2015 therefore reached an all-time high during the twenty-year history of mortgage lending.

Competition among lenders, low yields on government bonds and other conservative investments triggered by a low interest environment had a significant impact on mortgage markets. Despite this fact, the market is still dominated by the three biggest players (Hypoteční banka, Česká spořitelna and Komerční banka). The share of refinancing of the Czech mortgage market has been increasing, and in 2015 was approximately 16%.

Mortgage Funding

The covered bond ("Hypotecni zastavni list" – hereinafter referred to as "MCB") mThe covered bonds ("Hypotecni zastavni list" – hereinafter referred to as "MCB") market in the Czech Republic was kick-started on the 1st of January 1992 on the basis of the general regulation contained in the Commercial Code. At present, MCBs and mortgage loans are regulated in detail by the Bond Act, which entered into force on the 1st of April 2004. The Bond Act was amended in 2012. The new provisions, amongst other things, enable the issuance of MCBs under a foreign legislation and clarify the calculation of the compulsory minimum LTV. Specific provisions regarding cover assets and applicable to the opening of the insolvency proceedings or the declaration of bankruptcy of the issuing bank are part of the Insolvency Act No. 182/2006 Coll.

The principal funding source of mortgages in the Czech Republic is deposit based and covered bonds play a marginal role. LTVs of 80% are fewer compared to Western European countries, which proves a high degree of prudence.

	Czech Rep. 2014	Czech Rep. 2015	EU 28 2015
Real GDP growth (%) (1)	2.7	4.5	2.0
Unemployment Rate (LSF), annual average (%) (1)	6.1	5.1	9.4
HICP inflation (%) (1)	0.4	0.3	0.0
Outstanding Residential Loans (mn EUR) (2)	28,732	32,085	7,040,807
Outstanding Residential Loans per capita over 18 (EUR) (2)	3,317	3,703	17,047
Outstanding Residential Loans to disposable income ratio (%) (2)	32.6	37.7	n/a
Gross residential lending, annual growth (%) (2)	29.9	22.1	n/a
Typical mortgage rate, annual average (%) (2)	2.6	2.4	2.8*
Owner occupation rate (%) (1)	78.9	n/a	n/a**
Nominal house price growth (%) (2)	3.8	4.5	3.6

** Please note that this value is the simple average of the typical interest rate of the EU 28 countries.*

*** Please note that for the EU this data has a one year lag. For the latest available data please refer to statistical table 10.*

Sources:

(1) Eurostat

(2) European Mortgage Federation - Hypostat 2016, Statistical Tables.

Czech Republic Fact Table

Entities which can issue mortgage loans:	In the Czech Republic, housing finance is mainly raised by banks, in some cases also by credit unions.
The market share of the mortgage issuances:	Not available.
Proportion of outstanding mortgage loans of the mortgage issuances:	Three retail banks – Hypotečni banka, Česká spořitelna and Komerčni banka together hold almost 80% of the market share in the Czech Republic.
Typical LTV ratio on residential mortgage loans:	The aggregated LTV was 55.8% at the end of 2015. One of the recommendations of the Czech National Bank was that mortgages with LTVs above 90% should not exceed 10% of the total volume of new loans granted each quarter.
Any distinction made between residential and non-residential loans:	Not available
Most common mortgage product(s):	Most loans for house purchase (around 70%) are genuinely mortgage loans for residential property secured by that property.
Typical maturity of a mortgage:	On average, people pay for a mortgage for 20 to 25 years. Again, the recommendation of the Czech National Bank is not to provide loans of over 30 years.
Most common way to fund mortgage lending:	Mainly deposits (Loan-to-deposit ratio is at about 80%), less often covered bonds.

Level of costs associated with a house purchase:	Taxes and fees when buying/selling a property in the Czech Republic: 1. Real Estate Transfer Tax (4% of purchase price – does not apply to the first transfer of ownership of a newly-built building or flat) 2. Real estate agency fee (at about 3%)
The level (if any) of government subsidies for house purchases:	1. With the current landscape of very low interest rates, the state does not consider it necessary to support mortgage loans for young people as used it used to do from 2004 to 2011. However, since the 21st April 2016 there is the possibility for young families up to 36 years with at least one child under six years to receive a subsidy for a house purchase between CZK 50,000 – 600,000 (EUR 2,000 – 22,000) in the form of a discounted fixed rate for five years and a maximum maturity of 15 years. The successful applicant may acquire, among other benefits, a special rate of 1.46 % derived from the current EU reference rate. 2. Tax-deductible paid interests: The amount paid in interest on a mortgage loan to finance housing needs can be deducted from the tax base of physical entities' income, up to CZK 300,000 per year (this also applies to foreigners who have a tax domiciliation in the Czech Republic).

Denmark

By Kaare Christensen, Association of Danish Mortgage Banks

Macroeconomic Overview

The Danish economy grew by +1.0% in 2015, mainly driven by households' consumption expenditure and to a lesser extent by public consumption and gross fixed capital formation. The consumer confidence grew to a high level in the first half of 2015. However, by the end of 2015 the confidence was lower than in the beginning of the year.

Gross capital formation rose by +1.2% over the year, while public and private consumption grew +0.6% and 2.1% respectively, with inventories having a significant negative effect on the growth. Net exports had a positive contribution as imports of goods and services fell by -1.4% and exports only fell by -1.0%.

The deposit rate at the Danish central bank, Danmarks Nationalbank, started the year close to zero, however quickly decreased to minus 0.75% as the central bank countered upwards pressure on the Danish Krone. The discount rate remained at minus 0.75% for the rest of the year. Meanwhile, the central bank lending rate started the year at 0.2%, but was lowered to 0.05% in January and has remained there since. The average yield on 10-year government bonds was approximately 0.7% over the year with a low of approximately 0.1% in February.

Unemployment decreased from 6.6% to 6.2% (Eurostat Unemployment Rates) by the end of 2015. Unit labour costs in the Danish private sector rose by +1.6% while the unit labour costs in the public sector rose by +0.8%. Both outpaced a consumer price increase of +0.2% in 2015.

The Danish government recorded a budget deficit of 2.1% of GDP for the year. Meanwhile, gross public debt was 40.2% of GDP, which is low in a European context. According to the European Commission, macroeconomic challenges – including the gross debt of the household sector – in Denmark no longer constitute substantial macroeconomic risks. This has led the Commission to remove Denmark from the list of countries under surveillance for macroeconomic imbalances. Meanwhile, Denmark ran a current account surplus of 6.99% of GDP. The current account has been in positive territory for the best part of two decades, and in 2005 Denmark became a net creditor on the rest of the world. The net position of Danish assets on the rest of the world was 42% of GDP by the end of 2015.

Housing and Mortgage Markets

The owner-occupation rate was 53.1% by the end of 2015. This marks a decrease of -0.4 pps over the year. Since 2007, the owner-occupation rate has decreased slightly by a total of -1.3 pps. The development contrasts the costs of owner occupation. Lower house prices compared to 2007 accompanied by decreasing finance costs have brought user costs on owner-occupied homes down to a level last experienced in the latter part of the 1990's.

Domestic nominal house prices increased by +6.6% (y-o-y) in 2015. Not only house prices, but also prices on owner-occupied flats have been rising for some years. House price developments are spreading from the biggest cities - especially the Copenhagen area where prices on owner-occupied flats and detached and terraced houses rose by +12.9% and +10.3% (y-o-y) in 2015.

Transaction activity was higher during 2015 than the year before, and is now slightly above the historical average. Developments in the Danish housing market remain divided between developments in the Copenhagen Region, including to an extent other large cities, and the more rural parts of the country. The underlying demographic movement from countryside to larger cities is favouring markets in the latter. Hence, demand is picking up quite substantially, and several years of slow construction activity in the whole country means that the overhang in larger cities is relatively small. In the countryside, demographic developments are slowing the demand for owner-occupied homes, and although the number of homes set for sale has been decreasing, the overhang of detached and terraced houses remains quite substantial. As a consequence, the few buyers in these areas have a lot to choose from, eventually putting downward pressure on house prices.

Mortgage markets

The amount of outstanding mortgage loans from Danish mortgage banks increased by +2.5% from Q4 2014 to Q4 2015. By year-end 2015, outstanding mortgage loans from mortgage banks amounted to DKK 2,550 billion. Residential mortgage loans make up about 75% of the total amount of mortgage loans outstanding and 57.2% are made up by owner-occupied loans. Hence, the Danish mortgage sector remained a stable source of funding to households and businesses in 2015. Commercial retail banks also issue housing loans to Danish households. By year-end 2015 housing loans issued by commercial retail banks amounted to DKK 302 billion, which marks a decrease of -3.7% over the past year.

Outstanding mortgage loans issued by mortgage banks are typically split between fixed-rate mortgages (31.8% by year-end 2015), adjustable-rate mortgages with an interest rate cap (5.5% by year-end 2015), adjustable-rate mortgages (17.5% by year-end 2015) and interest-reset mortgages with interest-reset intervals between 1 and 10 years (45.2% by year-end 2015) – of which the shortest interest-reset interval of 1 year constitutes 15 pps.

Gross lending activity by mortgage banks increased from the previous two years. The year 2015 was characterised by high activity due to attractive remortgaging opportunities as a consequence of low mortgage rates. All in all, total gross lending reached DKK 599 billion. Residential mortgages counted for 79% of gross lending.

Fixed-rate mortgages (typically fixed for 30 years) accounted for 65% of gross lending in 2015. That is an increase of +11 pps compared to 2014. Adjustable-rate mortgages and interest-reset mortgages accounted for 34% and adjustable-rate mortgages with an interest rate cap accounted for 1% of gross lending in 2015.

Early redemptions and amortisation amounted to DKK 549 billion in 2015. Hence net lending came in at DKK 49 billion, which is slightly more than twice the amount of net lending in 2014.

The increasing popularity of fixed-rate mortgages in 2014 continued throughout 2015 as well. Also movements within the interest-reset segment continued in 2015. Borrowers are favouring fixed-rate mortgages and interest rate-reset mortgages with semi-annual and 3-5 years intervals to interest-reset mortgages with yearly intervals. There might be different reasons for this development. One reason that stands out is the industry's own measures which include increased fees on interest-reset mortgages with yearly intervals and interest-only mortgages relative to other types of loans. On the margin, this has given borrowers an incentive to choose other mortgages than interest-reset mortgages with a 1-year interval and interest-only mortgages. Other possible reasons for borrowers preferring fixed-rate mortgages and mortgages with longer interest rate fixation could be borrowers' expectations of future interest rate increases. Also, in 2015 the interest rate on a 30-year fixed-rate mortgage remained at the very low level from 2014, which provides equity protection from an interest rate increase (and hence expected house price decline) as the price of the mortgage is reduced as interest rates rise – neutralising possible value deterioration.

Finally, we have seen an increase in the amount of variable loans without cap.

During the first half of 2015, interest rates on fixed-rate mortgage loans sunk to a historically low level, but during the second half of the year interest rates rose again. However, the yearly average of interest rates on fixed-rate loans in 2015 is still below the average of 2014. The interest rates on short-term loans fell to an extent, where investors received negative yields on the underlying bonds. The short-term interest rate to borrowers was on average 1.09% during 2015 and 30-year fixed-rate mortgages were issued with a coupon of between 2.0, 2.5 or 3.0% during the year.

Mortgage Funding

Mortgage loans issued by mortgage banks are solely funded by the issuance of covered bonds. Mortgage banks continuously supply extra collateral on a loan-by-loan basis if the value of cover assets (properties) deteriorates.

The funding mix – for the main part bullet bonds or callable long term bonds – adjusts continuously according to borrower demand. Bonds are tapped and bullet bonds behind interest-reset loans are refinanced by month-end in March, September and December. The largest refinancing date has traditionally been December. It still remains the largest refinancing date, but new bullet bonds have not been issued with maturity in December for the past years, spreading refinancing activity and hence the point risk more evenly across the year. In 2015, short-term bullet bonds worth DKK 177 billion were refinanced in December. This compares to DKK 233 billion in 2014 and even higher amounts in the previous years. In December 2015, the shortest bullet bonds (one year maturity) were sold and resulted in a mortgage interest rate of approximately 0.2%.

At the end of 2015, long-term callable bonds, which fund the fixed-rate mortgages, were issued with a coupon of 3.0%.

	Denmark 2014	Denmark 2015	EU 28 2015
Real GDP growth (%) (1)	1.3	1.0	2.0
Unemployment Rate (LSF), annual average (%) (1)	6.6	6.2	9.4
HICP inflation (%) (1)	0.4	0.2	0.0
Outstanding Residential Loans (mn EUR) (2)	234,518	238,787	7,040,807
Outstanding Residential Loans per capita over 18 (EUR) (2)	52,703	53,184	17,047
Outstanding Residential Loans to disposable income ratio (%) (2)	185.5	174.7	n/a
Gross residential lending, annual growth (%) (2)	42.9	43.6	n/a
Typical mortgage rate, annual average (%) (2)	1.3	1.1	2.8*
Owner occupation rate (%) (1)	63.3	62.7	n/a**
Nominal house price growth (%) (2)	0.8	1.5	3.6

** Please note that this value is the simple average of the typical interest rate of the EU 28 countries.*

*** Please note that for the EU this data has a one year lag. For the latest available data please refer to statistical table 10.*

Sources:

(1) Eurostat
(2) European Mortgage Federation - Hypostat 2016, Statistical Tables.

Denmark Fact Table

Entities which can issue mortgage loans:	Retail banks and mortgage banks
The market share of the mortgage issuances:	Not available – data for residential reflect mortgage banks issuance only (not available for retail banks)
Proportion of outstanding mortgage loans of the mortgage issuances:	Over the past twelve months, the proportion (for residential loans) has been the following: • Retail banks 17% • Mortgage banks 83%
Typical LTV ratio on residential mortgage loans:	For new loans for owner-occupied housing the LTV will normally be 80% For other new residential loans the LTV will normally be 60%
Any distinction made between residential and non-residential loans:	The difference is whether you live in the house or not.
Most common mortgage product(s):	We have three typical types of loans: • Loans with Fixed rate • Interest reset loans • Loans with variable rate with and without cap
Typical maturity of a mortgage:	For new housing loans the maturity is normally 30 years. For business loan the maturity is typically 20 years.
Most common way to fund mortgage lending:	Covered bonds
Level of costs associated with a house purchase:	For new loans at DKK 1 million (EUR 134,000) with fixed rate the following apply: • Taxes going to state: DKK 17,660 (EUR 2,370) • Costs going to the Mortgage bank: DKK 11,060 (EUR 1,480)
The level (if any) of government subsidies for house purchases:	The government doesn't have any role in house purchases.

Estonia

By Olavi Miller, Central Bank of Estonia

Macroeconomic Overview

Economic growth in Estonia slowed in 2015 to 1.1%, remaining below the long-term potential of the country. Growth slowed mainly because of weaknesses in the economies of neighbouring countries, which restricted opportunities for exports, though sales in the domestic market grew rapidly as household incomes and purchasing power increased. Weak demand in export markets and uncertainty about the future have reduced corporate investment, and this, in turn, has restricted GDP growth in Estonia.

Estonian exports of goods have declined in the past two years; this decline steepened in 2015, leading Estonian exports to lose market share in target markets. Wage costs in the private sector last year started to rise more slowly, but corporate profits continued to shrink, meaning that there are still tensions in the labour market, and that the question of competitiveness remains a topical one for the economy. The surplus on the current account of the balance of payments was 394 million euros in 2015, or about 2% of GDP. This makes the surplus almost twice the size of that in the previous year. Even though competitiveness may have worsened, the current account position improved mainly thanks to a reduction in the deficit on the goods balance.

Although the economic circumstances of households have improved a long way, consumer confidence was down at the start of 2016. Confidence has probably been pulled down by slower GDP growth, but the large-scale redundancies recently announced may also have played a role. Some of these redundancies can be explained by changes in the structure of production in the economy, economic development, and rising income levels, which have gradually pushed production based on cheap labour out of the market. Overall, unemployment has fallen gradually and there has been no increase in the number of positions vacant. The negative effect of the decline in the number of working age people on the labour force was balanced out in 2015 by increased participation in the labour force. The labour force participation rate was 1.4 pps higher than in 2014 at 69.4%. Increased employment led to a fall in unemployment for 2015 as a whole to 6.2% compared to 7.4% in 2014.

Private consumption remained the main source of economic growth in the fourth quarter of 2015, when it was up by 3.2% over the year. The purchasing power of consumers was boosted by cheaper energy products, which left households with more money to buy other services and products. Wage income increased by more than twice as much according to data on tax receipts, mostly because of positive developments in the labour market and cuts in income tax. Built-up savings helped boost the volume of deposits and cash by an average of 9%.

Consumer prices continued their descent in the closing months of 2015, dropping by 0.6% in the fourth quarter. The fall in consumer prices has mainly been driven by developments in commodities markets, as prices for oil and food commodities continued to move downwards. However, import prices for consumer goods rose throughout 2015 as the euro exchange rate depreciated.

The fiscal policy of the Estonian general government was countercyclical last year and thereby boosted demand. The budget surplus was smaller in 2015 than in the previous year at 0.4% of GDP for the whole year.

Housing and Mortgage Markets

Housing market

The housing market was active last year and capital formation in dwellings at constant prices increased by 12.5% y-o-y in the fourth quarter. The relatively rapid rises in prices last year were partly due to an increase in the share of transactions for properties in Tallinn and in transactions with new apartments. The number of completed dwellings has been growing and the increase in supply has slowed down the price growth. Residential property became only slightly less affordable as wages rose fast.

Mortgage markets

There was only a small increase to 63% in the ratio of the volume of new housing loans to the total volume of transactions with residential property. This indicator is only slightly higher than its average for the past five years and it is markedly lower than before the crisis. The volume of loans taken to finance investment grew by around 4%. The interest rates on newly-issued housing loans did not change significantly in 2015 as the six-month EURIBOR, which is the base rate for the majority of loans, fell further, but marginal interest rates rose. The lending conditions of banks for households have remained relatively conservative, and the share of overdue household loans in the loan portfolios of the banks fell below 1% in 2015.

Mortgage Funding

The household loan portfolio of banks continued to grow steadily in 2015. A significant part was played by housing loans, and growth in such loans increased gradually during the year to reach 4.3% at the end of the year, which is 1.4 pps more than in the beginning of the year. The most important source of funds for the Estonian banking sector is deposits. As deposits have grown strongly in recent years, they have been enough to finance the demand for credit. The loans-to-deposits ratio of residents remained unchanged in 2015.

	Estonia 2014	Estonia 2015	EU 28 2015
Real GDP growth (%) (1)	2.9	1.1	2.0
Unemployment Rate (LSF), annual average (%) (1)	7.4	6.2	9.4
HICP inflation (%) (1)	0.5	0.1	0.0
Outstanding Residential Loans (mn EUR) (2)	6,064	6,323	7,040,807
Outstanding Residential Loans per capita over 18 (EUR) (2)	5,656	5,916	17,047
Outstanding Residential Loans to disposable income ratio (%) (2)	56.5	54.1	n/a
Gross residential lending, annual growth (%) (2)	19.5	15.0	n/a
Typical mortgage rate, annual average (%) (2)	2.4	2.2	2.8*
Owner occupation rate (%) (1)	81.4	n/a	n/a**
Nominal house price growth (%) (2)	10.7	13.7	3.6

** Please note that this value is the simple average of the typical interest rate of the EU 28 countries.*

*** Please note that for the EU this data has a one year lag. For the latest available data please refer to statistical table 10.*

Sources:

(1) Eurostat
(2) European Mortgage Federation - Hypostat 2016, Statistical Tables.

Estonia Fact Table

Entities which can issue mortgage loans:	No limitation on issuers.
The market share of the mortgage issuances:	Mortgage market consists mainly of commercial banks.
Proportion of outstanding mortgage loans of the mortgage issuances:	Commercial banks hold the majority of outstanding mortgage loans.
Typical LTV ratio on residential mortgage loans:	Eesti Pank has set a LTV limit of 85%.
Any distinction made between residential and non-residential loans:	Not available
Most common mortgage product(s):	30 year mortgage loan with floating interest rate.
Typical maturity of a mortgage:	Eesti Pank has set maximum mortgage maturity of 30 years.
Most common way to fund mortgage lending:	Commercial banks lending activities are covered mainly with domestic deposits.
Level of costs associated with a house purchase:	Not available
The level (if any) of government subsidies for house purchases:	KredEx offers loan guarantees with state guarantee for purchasing and renovating of homes. Additionally loan payments can be partly subtracted from income tax payment.

Finland

By Valtteri Vuorio, Federation of Finnish Financial Services

Macroeconomic Overview

In 2015, Finland's national economy grew slightly after three years of downturn. In 2015, GDP grew by 0.2% compared to a decline of 0.7% in 2014. Finnish exports are suffering from the global economic slowdown, since the majority of the exports are industrial products. The volume of exports deteriorated by 0.2% in 2015. The volume of private consumption grew by 1.5% and the volume of public consumption expenditure by 0.4 per cent in 2015. Imports increased by 1.9% in 2015. Consumer expectations were slightly brighter compared to 2014.

The challenging economic environment and the structural change of the economy have put increasing pressure on Finnish public finances. Due to the flat or contracting GDP, public finances have been under pressure. Public deficit increased to 2,8% of GDP in 2015. Low employment and weak private consumption are still reducing the government's tax revenues. As a result, the government's need for borrowing will continue to be substantial. The general government debt-to-GDP ratio climbed to 63.1% in 2015. According to economic forecasts, general government debt will continue to grow in the near future.

The unemployment rate has continued to grow in 2015 and was 9.2% in December. The annual average unemployment rate was 9.4%, having been 8.7% in 2014. One factor helping to hold back further increase in unemployment is that the labour force continues to shrink due to the ageing of the population. However, the rapid ageing of the population is also one of the main challenges facing the Finnish economy in the future.

In 2015, inflation slowed down in Finland as it did in the euro area as a whole. The Harmonised Index of Consumer Prices went down by 0.3% during this period. Households' adjusted real income increased by 1.0% in 2015 due to the slight improvement in wages. Decreased purchasing power of households continues to put pressure on private consumption in the future.

Housing and Mortgage Markets

The housing construction made an upturn in 2015 with an 9.0% increase in housing starts. Housing completions decreased by 3%. In addition, renovation investments continued to grow.

House prices decreased in nominal terms. Compared to 2013, prices slumped by 1.6% in the whole country. The housing market suffered as a result of weak consumer confidence during the year. The price per square metre of an old dwelling was EUR 2,268 in 2015 in the whole country, EUR 3,549 in Greater Helsinki and EUR 1,694 elsewhere in the country. Around 75% of Finnish households live in owner-occupied housing. The typical repayment period for a new housing loan is 20 years.

At the end of 2015, the total denominated housing loan portfolio stood at EUR 92 billion (44% of GDP), and the annual growth rate in 2014 increased to 2.5%, which means a slight build up in the trend of annual growth. The housing loan stock grew steadily throughout the year, and towards the end of the year the growth rate slightly accelerated. The growth rate was maintained by the widespread use of interest-only periods on housing loans. The 'interest-only' was a widespread campaign from different banks where households renegotiated EUR 12.8 billion worth of their housing loan agreements during 2015. The annual growth rate was still higher in Finland than in the euro area as a whole.

In 2015, Finnish households drew down new housing loans amounting to EUR 17 billion in total, which translates into a monthly average of EUR 1.4 billion. The monthly average figure was slightly bigger than in 2014. The value of new housing loan agreements amounted to EUR 16 billion, slightly less than in 2014.

Housing loans in Finland are most often linked to Euribor rates as they covered 96% of all housing loan agreements concluded in 2015. In December 2015, 79% of Euribor-linked new housing loan agreements were fixed for 12 months. In addition, since the Euribor rates were close to zero in December 2015, the average interest rate on new housing loans in Finland stood at 1.3%, which is approximately the all-time-low rate.

Due to the low level of Euribor rates, interest rates on housing loans in Finland on average are still lower than in the euro area on average. In Finland, a rather high share of housing loans are linked to floating interest rates with short fixation periods, while in many other euro countries housing loans are linked to fixed rates where the interest rate is agreed beforehand for several years.

During 2015 the Finnish FSA issued regulations and guidelines for the maximum LTV ratio. Banks are to abstain from financing home purchases for own use involving a higher than 90% LTV ratio as of July 2016. In FSA's capital adequacy calculations, residential mortgage lending with a less than 70% LTV ratio is considered lower-risk.

Mortgage Funding

Deposits are the main source of mortgage funding for Finnish banks. At the end of December 2015 credit institutions' deposit stock amounted to EUR 148 billion. The stock of household deposits, which accounts for over half of the total deposits, increased by almost EUR 1 billion to EUR 82 billion. In addition, deposits by non-financial corporations increased by almost EUR 3 billion. Deposits continued to increase slightly in 2015: the total deposit stock increased by 2.2% on average from the previous year.

Household deposits increased slightly in 2015. The interest rate on the stock of deposits with an agreed maturity declined during the year to 1.01% in December 2015. In Finland, households seem to want to shift from fixed-term commitments to deposits that are easier to convert.

The share of debt securities as a source of funding decreased in 2015. At the end of the year, the stock of total outstanding debt securities issued by credit institutions stood at EUR 94 billion. The stock decreased by approximately 3% during the year, reflecting a slight decrease in long-term bonds. The stock of debt securities has increased by almost 37% during the last five years. The stock of covered bonds stood approximately EUR 31 billion at the end of 2015.

	Finland 2014	Finland 2015	EU 28 2015
Real GDP growth (%) (1)	-0,7	0,5	2.0
Unemployment Rate (LSF), annual average (%) (1)	8,7	9,4	9.4
HICP inflation (%) (1)	1,2	-0,2	0.0
Outstanding Residential Loans (mn EUR) (2)	89.762	91.955	7,040,807
Outstanding Residential Loans per capita over 18 (EUR) (2)	20.519	20.917	17,047
Outstanding Residential Loans to disposable income ratio (%) (2)	73,1	74,0	n/a
Gross residential lending, annual growth (%) (2)	0,1	89,9	n/a
Typical mortgage rate, annual average (%) (2)	1,8	1,4	2.8*
Owner occupation rate (%) (1)	73,2	72,7	n/a**
Nominal house price growth (%) (2)	-0,6	-0,8	3.6

** Please note that this value is the simple average of the typical interest rate of the EU 28 countries.*

*** Please note that for the EU this data has a one year lag. For the latest available data please refer to statistical table 10.*

Sources:

(1) Eurostat
(2) European Mortgage Federation - Hypostat 2016, Statistical Tables.

Finland Fact Table

Entities which can issue mortgage loans:	Credit institutions (banks and mortgage hypo banks).
The market share of the mortgage issuances:	Credit institutions (banks and mortgage hypo banks) 100%
Proportion of outstanding mortgage loans of the mortgage issuances:	Banking groups hold 100% of the housing loan stock (Banking groups include mortgage hypo banks as subsidiaries).
Typical LTV ratio on residential mortgage loans:	n/a
Any distinction made between residential and non-residential loans:	Not available
Most common mortgage product(s):	Housing loan
Typical maturity of a mortgage:	20 years
Most common way to fund mortgage lending:	Deposits and bonds (including covered bonds)
Level of costs associated with a house purchase:	2% transaction tax for apartments, 4% transaction tax for real estates (first time buyers are exempted from both).
The level (if any) of government subsidies for house purchases:	First time buyers are exempted from transaction taxes.

France

By Emmanuel Ducasse, Crédit Foncier Immobilier

Macroeconomic Overview

French GDP rose by only 1.1%, after 0.2% in 2014, and was not enough to reduce the unemployment rate which at 10% in 2015 had virtually not moved from 9.9% in 2014. Furthermore, the public deficit did not improve either, hovering around 3.9% of GDP However this was principally driven by exceptional, exogenous circumstances (oil, euro, interest rates). The oil price drop in particular significantly increased household purchasing power (1.4%, making a 0.8 point contribution to the 1.1% GDP growth).

The absence of inflation did not initiate any wait-and-see attitude, despite the mechanical rising of the savings rate (15.3% vs. 15.1% in 2014). Exports could partially benefit from the revitalisation of intra-euro area trade, and from a weaker euro.

However, signs of strengthening of supply to support a self-sustained recovery were still lacking. Hence, productive investment grew slowly (1.9%, the same as in 2014, making only a 0.2% contribution to the 1.1% GDP growth), despite a higher margin for companies as a result of lower social security charges (but at the expense of a tax increase for households), and of a decrease in costs relating to oil.

Household investment fell less than in 2014. Similarly, employment in the merchant sector remained sluggish and the number of unemployed continued to rise (3.57 million people by the end of the year).

Housing and Mortgage Markets

Housing market

The dynamics that took hold in late 2014 continued throughout 2015. Government incentives, favourable financing conditions and a more favourable macroeconomic environment underpinned the market.

Real estate loan interest rates rose slightly in the summer, but remained at record low levels throughout the year. As a result, given the high level of new loan production, 2015 has proved to be a very good year for the real estate market.

Business picked up sharply in the new property segment in 2015.

The first sign of this recovery was the improvement in property developer sales, mainly due to renewed interest from investors who welcomed the new tax incentives for buy-to-let investments known as the Pinel scheme. Sales of homes over the year stood at 102,500 units, up 17.9% compared with 2014. This increase in buyers also reduced the number of homes available for sale, which declined by 6.1% over the year.

The second sign was the gradual increase in the number of building permits and housing starts due to the sharp improvement in new housing sales. In the property development market, the number of permits issued in 2015 was up 2.9% compared with the previous year, and stood at 387,100 units. Housing starts over the same period rose by 2.1% to 350,800 units.

Builders continued their efforts to limit the additional costs arising from new construction standards. Sales prices rose by 1% to 1.4% in 2015. Thus, average apartment prices stood at EUR 3,890/m², compared with EUR 3,852/m² a year earlier.

The improvement in the real estate market was therefore more evident in sales of individual homes, which were up by 13% y-o-y at the end of December 2015.

Existing property sales also improved in 2015 and at the end of 2015, the number of transactions stood at 803,000 units, an increase of 15.7% compared with the previous year. The fall in the number of transactions that began in mid-2014 finally ended in summer 2015.

This recovery was also due to the decline in prices. In Ile-de-France, apartment prices were down by 1.1%, while for individual homes the decrease amounted to 0.5%. In the rest of the country, the drop was similar: 1.1% for apartments, but individual homes recorded a 0.3% increase. However, according to provisional figures of the Insee-Notaires de France index, prices stopped falling in the third quarter of 2015, and fell again by 0.5% in the fourth quarter, compared with the previous year.

Mortgage markets

The real estate lending market was very active in 2015 since home loan interest rates remained very low, at an average of 2.2% .

Low interest rates make it easier for young people and low-income families to purchase their first home. The government met its objective of facilitating first-time home ownership, in particular for young peoples. 79% of borrowers that took an interest-free loan since the start of the year were under 40. The proportion of young people among first-time home buyers is rising steadily. Thus, buyers under 40 currently account for 61% of new home buyers.

The interest-free loan proved particularly successful for the purchase of new properties and only an insignificant portion of these loans was granted for existing homes.

Loan production increased sharply throughout the year. Over one year to the end of December 2015, loan production amounted to EUR 156 billion, an increase of 30% . This exceptional level of activity was also due to the rise in loan renegotiations throughout the year, totalling EUR 76 billion in 2015, encouraged by extremely low interest rates and intense competition between lenders.

Mortgage Funding

Deposits

The total amount of sight deposits in French banks (all actors) reached EUR 711.8 billion at the end of 2015, against EUR 626.6 billion in 2014, that is a 13,6% y-o-y growth (vs a 7.9% growth between 2013 and 2014). Thus, household demand deposits rose by 10.56%, from EUR 291.9 billion to EUR 322.7 billion.

As for savings accounts (passbooks + purchase savings plans), outstanding funds remained almost stable at the end of 2015, from EUR 789.1 billion to EUR 802.2 billion in a year (a 1.65% increase).

Covered bonds

Despite an uncertain economic environment, covered bonds are still a safer and more secure source of funding for European credit institutions than non-privileged resources and other types of secured debt.

A total of EUR 44.9 billion in euro benchmark covered bonds was issued in 2015, which nearly doubled the issuance of 2014. Net supply of covered bonds (difference between issuances and redemptions) remained nearly unchanged with outstanding euro denominated covered bonds ranging around EUR 303 billion.

In France, Compagnie de Financement Foncier's activity remained very strong in 2015, with total issuance amounting to EUR 7 billion (excluding buy-back and intra-group placements), an increase of EUR 0.9 billion on 2014. Public issuance totalled EUR 6.4 billion in 2015, compared with EUR 4.6 billion in 2014, and private placements stood at EUR 2 billion (including EUR 0.8 billion in intra-group placements and EUR 0.6 billion in buy-back) in 2015, compared with EUR 1.5 billion in 2014.

	France 2014	France 2015	EU 28 2015
Real GDP growth (%) (1)	0.6	1.3	2.0
Unemployment Rate (LSF), annual average (%) (1)	10.3	10.4	9.4
HICP inflation (%) (1)	0.6	0.1	0.0
Outstanding Residential Loans (mn EUR) (2)	922,600	949,900	7,040,807
Outstanding Residential Loans per capita over 18 (EUR) (2)	17,998	18,400	17,047
Outstanding Residential Loans to disposable income ratio (%) (2)	66.4	67.5	n/a
Gross residential lending, annual growth (%) (2)	1.1	14.8	n/a
Typical mortgage rate, annual average (%) (2)	2.7	2.1	2.8*
Owner occupation rate (%) (1)	65.0	n/a	n/a**
Nominal house price growth (%) (2)	-2.6	-0.3	3.6

** Please note that this value is the simple average of the typical interest rate of the EU 28 countries.*

*** Please note that for the EU this data has a one year lag. For the latest available data please refer to statistical table 10.*

Sources:

(1) Eurostat
(2) European Mortgage Federation - Hypostat 2016, Statistical Tables.

France Fact Table

Entities which can issue mortgage loans:	In 2015, a total of 404 credit institutions (including banks, mutual banks, municipal credit banks and special credit institutions) benefited from an agreement delivered by the French supervisory authority (ACPR).
The market share of the mortgage issuances:	The three main categories of credit institutions, involved in property lending, are in France: • Full service banks, whose market share increased in 2015 (40.1% vs 37.3% in 2014) • Mutual and cooperative banks, with a lightly declining market share (54.5% vs 56.4% in 2014) • Specialised institutions, which experimented a light decline of their position (5.4% vs 6.2% in 2014).
Proportion of outstanding mortgage loans of the mortgage issuances:	Since the French market is mostly based on guaranteed loans, we did not find in government data reliable statistics related with the outstanding mortgage loans allocation between the three categories of banks, as stated above.
Typical LTV ratio on residential mortgage loans:	In the first quarter of 2016, loans accounted for 79% of the average cost of the operation, as regards the existing housing market, and for 83% of the average cost as for the new housing market.
Any distinction made between residential and non-residential loans:	French banking regulations require a distinction depending on the purpose of the loan. Thus, applicable conditions differ for every kind of financed asset.
Most common mortgage product(s):	The most commonly seen loan is a fixed-rate one. In the first quarter of 2016, 99.6% of the new credits were fixed-rate loans.
Typical maturity of a mortgage:	In the first months of 2016, the average term of real estate loans was 212 months, which is 17 years and 6 months.
Most common way to fund mortgage lending:	The two main sources of funding real estate lending in France are the households' and companies' deposits, which may be term deposits or on book ones, and bonds on the other hand. Securitisation of loans remains marginal in France.
Level of costs associated with a house purchase:	In France, the purchase costs depend on the new or existing nature of the purchased house: between 7% and 10% for an existing one (these costs including transfer duties and agency fees); about 2% for a new house (transfer duties only), plus VAT (20%).
The level (if any) of government subsidies for house purchases:	As regards new housing, the development fees and the VAT may be affected by standard abatement. Furthermore, the first-time buyer may benefit from a zero-percent loan (supplemented by the government), which can cover up to 30% of the global cost of the operation, depending on: • the area (four areas are defined by law, according to the local real estate market situation: more or less stretched), • the household composition and income.

Germany

By Thomas Hofer, vdpResearch

Macroeconomic Overview

The upturn in the German economy continued at a sound pace in 2015. The GDP grew in real terms by +1.7% y-o-y (after +1.6% in the previous year). Growth was bolstered by domestic demand. Private consumption remained on a high level due to a favourable consumer climate. The labour market remained stable and the unemployment rate continued to decline somewhat reaching 4.6% in 2015 (2014: 5.0%). Growing wages, assumed low risk of unemployment, favourable financing conditions and a positive sentiment among private households all combined to make investment in housing attractive.

Housing and Mortgage Markets

In 2015, residential investment and construction activity grew again at a strong pace. Residential investment increased by +4.2%. The number of building permits rose by +9.9% compared to the previous year. After several years of relatively stable number of transactions, the 2015 figures showed a surge of +5.3% to around 596,000.

Prices for residential properties continued to rise in 2015. As an average for 2015, prices for owner-occupied housing rose by +4.5% (2014: +3.2%). Developments in the individual property segments were similar: Prices for single family houses and apartments grew almost at the same pace. Prices for multi-family houses rose too, by +7.2% in 2015 (2014: +6.9%). Demand for residential properties remained strong given the favorable financing conditions and the stability of households' income prospects. Once again, the main focus of interest was on large and university cities. The very strong demand in large cities is increasingly spreading also to the surrounding areas, leading to rising prices there, too.

The growth of construction and transaction activities combined with rising prices for residential properties has been accompanied by increasing residential lending. In 2015, gross residential lending rose by +17.8% y-o-y. The volume of residential loans outstanding amounted to EUR 1,279 billion, which corresponded to an increase of +3.4% with respect to 2014.

For almost one decade (2000-2009), the completion of new dwellings has been falling to a level lower than necessary to meet the demand for housing. Even today construction activity is still not sufficient. Especially in economically prospering cities the number of inhabitants (and private households) has seen strong growth in recent years. This development has led to shortages and rising rents in several regional markets. In parallel to this, interest rates for residential mortgage loans have experienced a strong decrease. In 2015, mortgage interest rates in Germany were again lower than in the previous year. The average mortgage rate went down to 1.95% from 2.49% in 2014. The combination of rising rents, falling interest rates and the shortage of lucrative alternative investments has resulted in a pronounced increase in demand for houses, especially in the larger dynamic cities.

Funding

In Germany, the main funding instruments for housing loans are savings deposits and mortgage bonds. Germany has one of the largest covered bond markets in Europe, accounting for approximately one sixth of the total market. The sub-sector of this market for mortgage bonds is also strong in Germany and accounted for one tenth of the total EU market.

In the year under review, Pfandbriefe worth EUR 58.1 billion were issued (in 2014 the figure was EUR 45.8 billion). Mortgage Pfandbriefe sales accounted for EUR 40.4 billion (29.1 billion in 2014), and Public Pfandbriefe worth EUR 15.5 billion were sold (15.3 in 2014). Ship and Aircraft Pfandbriefe worth EUR 2.2 billion were issued in 2014 (1.4 in 2014).

As repayments exceeded new sales, the outstanding volume of Pfandbriefe decreased to EUR 384,4 billion in 2015 (from 402.2 billion in 2014). Whereas the volume outstanding of Mortgage Pfandbriefe increased from EUR 189.9 billion in 2014 to EUR 197.7 billion in 2015, Public Pfandbriefe experienced a further decline from EUR 206.5 billion to EUR 180.5 billion. In 2015, Ship and Aircraft Pfandbriefe accounted for EUR 6.2 billion (EUR 5.8 billion in 2014).

	Germany 2014	Germany 2015	EU 28 2015
Real GDP growth (%) (1)	1.6	1.7	2.0
Unemployment Rate (LSF), annual average (%) (1)	5.0	4.6	9.4
HICP inflation (%) (1)	0.8	0.1	0.0
Outstanding Residential Loans (mn EUR) (2)	1,237,410	1,278,909	7,040,807
Outstanding Residential Loans per capita over 18 (EUR) (2)	18,280	18,784	17,047
Outstanding Residential Loans to disposable income ratio (%) (2)	66.3	66.7	n/a
Gross residential lending, annual growth (%) (2)	4.1	17.8	n/a
Typical mortgage rate, annual average (%) (2)	2.5	2.0	2.8*
Owner occupation rate (%) (1)	52.5	n/a	n/a**
Nominal house price growth (%) (2)	3.2	4.5	3.6

** Please note that this value is the simple average of the typical interest rate of the EU 28 countries.*

*** Please note that for the EU this data has a one year lag. For the latest available data please refer to statistical table 10.*

Sources:

(1) Eurostat
(2) European Mortgage Federation - Hypostat 2016, Statistical Tables.

Germany Fact Table

Entities which can issue mortgage loans:	MFI's and Life Insurers
The market share of the mortgage issuances:	MFI's: 96%, Life Insurers: 4%
Proportion of outstanding mortgage loans of the mortgage issuances:	MFI's: 96%, Life Insurers: 4%
Typical LTV ratio on residential mortgage loans:	76% (weighted average for single family houses and condominiums)
Any distinction made between residential and non-residential loans:	Type of use (buildings with different types of use: predominant use)
Most common mortgage product(s):	Mortgage loans with fixed interest rates for about 10 years
Typical maturity of a mortgage:	About 25 years
Most common way to fund mortgage lending:	Deposits, mortgage covered bonds, other bank bonds
Level of costs associated with a house purchase:	Transaction costs vary by federal state because of different land transfer tax rates and if a real estate agent is involved or not. Overall, transaction costs can vary between 5% and 15% of the house price.
The level (if any) of government subsidies for house purchases:	Subsidies for house purchase are only very limited available. The German states (Bundesländer) support home ownership within the scope of publicly assisted housing. Depending on the policy and cash balance of each state, several programmes are offered. The KfW Förderbank (KfW promotional bank) offers promotional programmes for housing construction or modernisation and for first-time buyers.

Greece

By Calliope Akantziliotou[1], Bank of Greece

Macroeconomic Overview

In late 2014, there were indications that the Greek economy had overcome the six-year-long recession and had rebounded in 2014 by 0.7%. Despite uncertainty, economic activity was resilient in the first half of 2015 (0.6% y-o-y); however, it turned negative in H2 2015 (-1.3% y-o-y)[2]. The overall contraction in economic activity in 2015 was for the most part due to the sharp rise in economic uncertainty due to the national elections in January 2015, the climate of tense negotiations, the emergency closure of Greek banks in order to avoid a bank run and the subsequent imposition of capital controls, the referendum in July and another round of national elections in September. Nevertheless, the recession was milder than initially expected with real GDP falling by only 0.2% in 2015[3]. Real GDP is expected to decline in H1 2016, whereas positive growth rates are expected in H2 2016 as uncertainty has retreated and the impact of the imposition of capital controls in July 2015 was mitigated by their gradual easing, the agreement on the third economic adjustment program and the recapitalisation of Greek banks. The gradual restoration of confidence in recent months suggests that economic activity will decline only mildly for 2016. Investment in construction continued to decline in Q1 2016 by 0.6% y-o-y, though at a significantly lower rate compared to -10.2% of 2015. Overall, from the beginning of the current crisis in 2007 up till the first quarter of 2016, the cumulative decline in real GDP was 26.9%. Unemployment stood at 24.9% in 2015 with the share of long-term unemployed (12 months and above) accounting for 73.2%.

According to provisional seasonally-adjusted estimates published by ELSTAT, on the demand side, private consumption and gross fixed capital formation in 2015 increased marginally by respectively 0.2% and 0.9% compared to the continuous decline of previous years. Government consumption decreased marginally by 0.1%, also a significant deceleration with respect to the previous years. On the supply side, gross value added (at basic and constant prices), which had been declining continuously in previous years, slightly increase by 0.3% in 2015. Similarly, on the income side, national accounts' figures for 2015 showed a 1.5% increase in remuneration of employees for the first time after significant reductions in the previous years. According to ELSTAT's Labour Force Survey (LFS), employment increased by 2.1% in 2015, a notable acceleration compared to the stagnation of 2014 and the reduction of previous years. Nevertheless, unemployment remained high at 24.9%, the highest in EU-28. At the same time, the long-term unemployment rate dropped to 18.2% in 2015, with the majority of unemployed individuals being women. In addition, at 40.6%, young Greeks (20-29 years old) are the hardest hit in terms of unemployment amongst the EU-28, although this figure also fell relative to 2014 (44.2%). Deflation (HICP) has been recorded since March 2013 and registered -1.1% on average in 2015, decelerating compared to the -1.4% in 2014. Recorded deflation in 2015 is mainly a consequence of the significant fall in international oil prices. Core inflation (HICP excluding energy and unprocessed food) was in negative territory since September 2012 and increased only marginally to 0.1% in 2015. The GDP deflator fell by 0.6% in 2015 (-0.1% y-o-y in Q1 2016) reflecting adjustments to profit margins and the fall in energy prices. It is expected to be around zero in 2016, depending on the extent of the pass through of the VAT increases.

Over the past six years, Greece has made considerable progress in dealing with its twin – fiscal and external – deficits. The 2015 primary fiscal outcome (program definition) recorded a surplus of 0.7% of GDP outperforming significantly the programme target of 0.25% of GDP. The improvement compared to the previous year reflects mainly spending containment and, to a lesser extent, revenue overperformance. The outcome was positively affected by the reclassification of several entities within the general government, as well as one-off factors mainly related to EU structural funds. Hence, only part of this outperformance will carry over into 2016. According to ELSTAT, in 2015 the general government recorded a primary deficit of 3.4% of GDP. This deterioration is due to the cost of banking sector support in 2015 (4.1% of GDP). Adjusting for this factor, the general government primary outcome in 2015 improved by 0.3% of GDP compared to 2014. The third economic adjustment program (August 2015) included additional fiscal reforms mainly in the fields of taxation and the pension system, plus a set of prior actions for the next three years, aiming at restoring fiscal sustainability and improving the public administration. Most of the fiscal reforms included in the new program have been legislated since August 2015.

The broader reform of the pension system is also now complete. A new law introducing pending reforms in the social security system passed through Parliament (8 May 2016). Remaining actions for the completion of the first review were voted on 22nd May 2016, including additional measures regarding increases in indirect taxation, wage bill savings, strengthening banks' balance sheets by implementing the strategy on NPLs, the establishment of the Greek Privatisation and Investment Fund, including an initial asset transfer and a contingency mechanism for automatically correcting deviations from fiscal targets. According to the latest MoU, the new fiscal path foresees a primary balance target of 0.5% of GDP for 2016, which appears within reach.

Economic sentiment has been improving since August 2015 due to improved expectations in all business sectors, although consumer confidence, has not recovered, reflecting uncertainty about the general economic situation as well as households' financial situation. According to Bank of Greece estimates, real GDP is expected to decline marginally by 0.3% in 2016. Downside risks, however, include a possible deterioration in the refugee crisis and its negative impact on tourism and trade.

Housing and Mortgage Markets

2015 witnessed persistent – though less intense – pressures on housing market values, prices and rents. A recovery in the market has been held back, inter alia, by the weak economic environment, the introduction of capital controls and the lack of liquidity, the high unemployment rate, the lower investment in residential construction, the heavy tax burden and the unstable tax regime (adjustments in the objective values of property, amendments in unified property ownership tax (ENFIA), etc.). Timid signs of stabilisation of the real estate market, which were observed from mid-2014 to the beginning of 2015, were thwarted due to the subsequent increase in uncertainty.

The Greek housing market continues to be characterised by excessive supply and very low demand. Indeed, according to the ELSTAT data collected by notaries throughout the country, the number of sales in real estate fell continuously from 117,948 in 2010 to 43,443 in 2014 even though the rate of decline has decelerated in more recent years. The annual rate of change in private construction activity, in terms of building permits, was -0.9% in 2015, which represents a significantly smaller contraction compared to the dramatic rates of decline since 2007. However, in the first quarter of 2016 the rate of decline recorded was 14.0%. By contrast, investment in construction continued to decline in 2015 by 10.2%, whereas 2016 started with only a 0.6% y-o-y contraction. The rate of decline in residential investment has been even more significant (-23.3% in 2015) and -17.3% y-o-y in Q1 2016, although there was a deceleration in the rate of decline with respect to previous years. Residential investment (at constant prices) declined from 9.9% of GDP in 2007 to 0.7% of GDP in Q1 2016. Business expectations in construction reached their lowest point in 2015 (-29.9%), after a rebound from 2012 up to 2014. A more significant rate of decline was recorded in business expectations for dwellings (2015: -32.2%). In the first five months of 2016, business expectations returned to positive territory (total construction: 4.8% and dwellings: 47.0%, y-o-y).

[1] The views expressed are solely those of the author and should not to be interpreted as reflecting the views of the Bank of Greece.

[2] Hellenic Statistical Authority (ELSTAT) data, reference year 2010, seasonally adjusted.

[3] ELSTAT data, reference year 2010, non-seasonally adjusted.

In the housing market, the drop in prices continued throughout 2015 and into Q1 2016, although at a more moderate pace, while the number of transactions was very low. In particular, based on data collected by the Bank of Greece from credit institutions, nominal apartment prices fell by an annual average of 5.0% in 2015, (Q1 2016: -5.0% y-o-y), marking a deceleration compared with the falls of previous years. From 2008 to Q1 2016 prices fell more significantly in the two major urban centres and for more exclusive properties in more expensive areas in Greece. More specifically, from the beginning of the current crisis in 2008 (average level) up till the first quarter of 2016, the cumulative decline in apartment prices was 41.3% in nominal terms. During the crisis, household demand shifted towards smaller, older and more affordable properties in medium-cost areas, a trend which became more marked in 2014 and in 2015, according to the surveys of real estate agencies. These kinds of properties are considered to be a safe alternative to households' savings and have developed into an investment option, while the economic uncertainty and the imposition of capital controls in 2015 played a significant role.

As a result of the complex economic situation, the real estate market has been largely frozen since early 2015. The downward trend in house prices is likely to persist in the following quarters, but at relatively more moderate rates. The prospect of a stabilisation and recovery in the real estate market hinges on a number of factors, including: the dissipation of uncertainty and a strengthening of the outlook of the Greek economy; improvements in business and household confidence; an easing of bank financing conditions; a reduction of red tape; and, last but not least, stable urban planning and tax frameworks.

The volume of credit to the private sector has contracted at relatively stable rates in the last five years. This decrease can be attributed to both demand and supply factors as a result of the weakness of economic activity, deteriorating confidence and significant pressures on banks' balance sheets. The rate of contraction of bank credit remains negative and has been relatively stable for a number of months.

The outstanding balances of loans from domestic MFIs to households declined at an annual rate of -3.1% in 2015 and -2.9% in April 2016, roughly unchanged relative to previous years. Housing loans continued to decline by 3.5% in 2015 and by 3.3% in Q1 2016, similar to the declines of previous years. The negative growth of domestic private sector lending bottomed-out in mid-2012 and has been gradually decelerating ever since, especially for non-financial corporations and to a lesser extent for households. In particular, the rate of contraction of bank credit to non-financial corporations has been decelerating since the beginning of 2014, but stopped decelerating after the imposition of capital controls in June 2015, reflecting the slowdown in economic activity; however, since March 2016 it has started to decelerate again. The rate of contraction of bank credit to households stabilised in 2015 and during the first months of 2016, after decelerating gradually from mid-2012 up to end-2014. The bank lending rate for mortgages and non-financial corporations declined in 2015 and during the first months of 2016, in contrast to the corresponding consumer credit rate which has been rising.

The strong recession has affected borrowers' ability to service their outstanding mortgage debt. As a consequence, the share of non-performing housing loans has increased substantially since 2008 and an increase of 31.6% was recorded in 2015, despite the effort by commercial banks to restructure loans in order to minimise capital losses. NPLs (on a solo basis) rose to 35.9% in Q1 2016 from 35.8% at end-2015.

Mortgage Funding

Housing loans continue to record negative y-o-y growth rates, with the latest figure (April 2016) standing at -3.3%, broadly stable compared to previous months (January-March 2016: -3.4%). In 2015, the rate of decline in housing loans accelerated (December 2015: -3.5%) compared with the rate in 2014 (December 2014: -3.0%). The strong deposit outflows between October 2014 and June 2015 (private sector deposits reduced by EUR 43 billion) ceased after the imposition of capital controls (July 2015) and the agreement on the third economic adjustment program (August 2015). The completion of bank recapitalisation in December 2015 represented a step towards the restoration of confidence in the Greek banking system and consequently an improvement in bank credit conditions. Since the eruption of the Greek crisis in October 2009, deposits are down by EUR 113 billion in total. According to the Bank Lending Survey results for Greece, credit standards, terms and conditions for loans to households for house purchase and consumer credit were tightened moderately by the banks during H2 2015, and remained unchanged in Q1 2016 compared to Q4 2015, and this development is expected to continue in Q2 2016. The proportion of rejected loan applications to housing loans declined in Q1 2016. As far as demand is concerned, it marginally increased for housing loans, in contrast to the demand for consumer loans that declined due to a fall in durables expenditures. In Q2 2016, the demand for both housing loans and consumer credit are expected to stabilise.

	Greece 2014	Greece 2015	EU 28 2015
Real GDP growth (%) (1)	0.7	-0.2	2.0
Unemployment Rate (LSF), annual average (%) (1)	26.5	24.9	9.4
HICP inflation (%) (1)	-1.4	-1.1	0.0
Outstanding Residential Loans (mn EUR) (2)	69,408	67,593	7,040,807
Outstanding Residential Loans per capita over 18 (EUR) (2)	7,710	7,545	17,047
Outstanding Residential Loans to disposable income ratio (%) (2)	58.6	57.9	n/a
Gross residential lending, annual growth (%) (2)	n/a	n/a	n/a
Typical mortgage rate, annual average (%) (2)	2.9	2.7	2.8*
Owner occupation rate (%) (1)	74.0	n/a	n/a**
Nominal house price growth (%) (2)	-7.5	-5.0	3.6

** Please note that this value is the simple average of the typical interest rate of the EU 28 countries.*

*** Please note that for the EU this data has a one year lag. For the latest available data please refer to statistical table 10.*

Sources:

(1) Eurostat

(2) European Mortgage Federation - Hypostat 2016, Statistical Tables.

Greece Fact Table

Entities which can issue mortgage loans:	All credit institutions authorised in Greece under the Law 4261/2014, Directive 2013/36/EU.
The market share of the mortgage issuances:	n/a
Proportion of outstanding mortgage loans of the mortgage issuances:	n/a
Typical LTV ratio on residential mortgage loans:	n/a
Any distinction made between residential and non-residential loans:	The distinction is made by the reporting agents themselves.
Most common mortgage product(s):	Mortgages with floating rate
Typical maturity of a mortgage:	n/a
Most common way to fund mortgage lending:	n/a
Level of costs associated with a house purchase:	Taxation on property: • For house purchase, transaction cost at 3% • Recurrent property tax, as unified property tax (ENFIA). Since 2014, it is imposed on all types of real estate properties, including land plots and agricultural real estate properties • Capital gains tax levied on property-selling owners (equal to 15% of the difference between the acquisition price and the selling price, progressively depreciated depending on the holding period of the property)
The level (if any) of government subsidies for house purchases:	For house purchase, there are no government subsidies

Hungary

By Gyula Nagy, Hungarian Banking Association

Macroeconomic Overview

GDP growth

GDP increased by 3.2% y-o-y in Hungary in the fourth quarter of 2015 For the whole year, economic performance was 2.9% higher than in the previous year. According to the production approach, gross value added increased by 6.3% in industry, by 2.9% in construction, by 2.8% in services and decreased by 13% in agriculture.

According to the expenditure approach the consumption of households rose by 2.6%, whereas the consumption of the government rose by 0.6%, so the actual final consumption increased by 2.3%. Gross capital formation amounted to 0.5%, within which gross fixed capital formation was 1.9% higher. Exports increased by 8.4% and imports by 7.8%.

Labour market, household earnings

According to the data of the Hungarian Statistical Office, at the end of 2015 the number of unemployed people was 279,000, 51,000 fewer than a year earlier. The unemployment rate decreased by 1.2 pps to 6.2%.

The real income of households grew by an average of 2.8% in 2015.

Prices

In 2015, the average price decrease was 0.1% compared to the previous year. Food prices increased by 0.9%. The highest price increase was observed for alcoholic beverages and tobacco (by 3.1%). The prices of services rose by 1.9% and those of consumer durables by 0.8% on average. Clothing and footwear prices remained unchanged. The prices of electricity, gas and other fuels fell by 2.9%.Other goods prices decreased by 4.6%.

The inflation rate was 0.1% (according to Eurostat data) in 2015 compared to the previous year.

Public finance

The Central Bank base rate stood at 1.35% at the end of 2014.

For 2015, the budget deficit was HUF 625.5 billion which accounts for 1.9% of GDP (2.5% in 2013).

The debt of the general government sector – based on data of the NBH – was HUF 25,394 billion, 75.3% of GDP at the end of 2015.

Housing and Mortgage Markets

Hungary has a stock of 4.5 million housing units. The private ownership ratio is around 89%. About 60% of houses were built before 1980 and only approximately 10% of flats were built in the last 15 years. As a result, the quality of the existing dwelling stock is rather obsolete.

During the years following the onset of the financial crisis (from 2008) the number of new houses built was at a very low level with 2013 representing the year with the lowest number of completions at only 7,293 dwellings.

In 2014, 8,300 dwellings were built, however, in 2015 the number of completed dwellings fell once again to 7,612 new housing units.

The number of building permits grew significantly in 2015 in Hungary: a total of 12,515 were issued during the year, indicating a 30% increase and exceeding the previous year's output by almost 3,000. Although this expansion is remarkable, the number of building permits issued remained at a modest level compared to the pre-crisis period. In 2016, however, a larger increase is expected, as developers have already announced massive new investments following the construction VAT cut (form January 2016 VAT on new dwellings will be 5% instead of 27%).

Apart from the VAT reduction, a significant increase in the family housing allowance (CSOK) was introduced in 2016. The new allowance favours families with 3 or more children, since these families are entitled to a HUF 10 million non-refundable lump sum allowance as well as a further HUF 10 million mortgage loan at preferential rate, when buying new dwellings. These new regulations will almost certainly give a boost to the housing market in the coming periods. As these measures were introduced at the end of 2015 the effects will emerge during the course of 2016.

House price increases occurred for all dwelling types, led by the capital with a nearly 25% increase. In terms of regions, the price increases have been the steepest in Central Hungary, where prices rose by more than 23% in 2015 compared to average prices in 2014. The Northern Great Plain region also saw a significant 17.5% growth. The most limited growth was measured in Western Transdanubia in 2015, where average housing prices increased by 11.5%. House prices on a country level were almost 18% higher in 2015 compared to the previous year.

According to the figures of the National Statistical Office, the number of housing transactions was 119,000 in 2015. This figure shows an improvement compared to previous years, when transactions were around 104,000. Despite the improvement compared to the previous year, the number of transactions observed in 2015 is still only half of the turnover observed before 2007.

Mortgage markets

Probably the most important regulatory change to residential mortgage lending in recent years in Hungary was the conversion of foreign currency (mostly CHF) denominated mortgage loans to HUF in 2015. According to a legislative package all residential foreign currency denominated mortgage loans were converted to HUF in the period between March – April 2015.

Following the conversion, at the end of Q2 2015 the proportion of HUF loans in the outstanding residential mortgage loan portfolio was already more than 99% (in exceptional cases debtors could keep their foreign currency loan exposure).

Based on the decision of the Curia, the Hungarian Supreme Court, lending banks also had to refund to debtors the so called "unjustified " interest rate increases and conversion rate differences (if applied) from the past.

The conversion rate for the CHF denominated mortgage loans was already set in 2014, before the Swiss National Bank decided to drop its peg against the Euro (in January 2015).

The conversion at a prefixed rate of foreign currency mortgages and the settlement based on the Curia's decision both contributed to the approximately 13% decrease of the outstanding mortgage loan portfolio in 2015 (compared to the previous year).

In spite of the deleveraging effects observed in the outstanding portfolio, new mortgage lending started to "heat up" and expanded significantly in 2015. The value of newly originated Hungarian Forint based mortgage loans in 2015 was around HUF 416 billion, representing a 52% increase compared to the previous year.

Historically low mortgage rates, the strengthening earning position of households and improving consumer confidence also stimulated the recovery of the mortgage market. The declining debt service burden of households following the settlement and the conversion of foreign currency loans also contributed to the turnaround in mortgage lending.

The ratio of non-performing household loans remained basically unchanged in 2015. The weak portfolio quality of mortgage loans continues to pose a high risk. At the end of 2015, the ratio of loans 90 days past due was around 15%. According to the Financial Stability Report of the Hungarian National Bank, the figure is about 2% lower compared to the same period of the previous year.

The National Asset Management Agency (NET) plays an important role in the cleaning of non-performing mortgage loans. Since the beginning of its activity in 2012, NET took over more than 25,000 collateralised properties from financial institutions.

Based on the latest information, more residential properties have been offered to NET and are currently being evaluated, meaning that the purchase of properties backing delinquent mortgage loans will continue in 2016.

Several new regulations were introduced in 2015 for mortgage lending. From January 2015 a maximum LTV (loan to value 80%) and a maximum PTI (payment to income ratio of 60%) were introduced.

Mortgage Funding

The largest portion of mortgage loans is deposit-funded in Hungary, but covered bonds are also a common form of mortgage financing. Legal act No. XXX. that was introduced for Mortgage Banks and Mortgage Bonds in 1997 contributed significantly to establish 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) from 2006 onwards, the proportion of covered bonds for mortgage lending started to decline, and they currently finance around one fifth of the total mortgage loan portfolio in 2015.

In 2015, the National Bank of Hungary announced the introduction of the Mortgage Funding Adequacy Ratio (MFAR), regulating the HUF maturity mismatch of residential mortgage loans.

According to the new regulation Hungarian financial institutions must refinance at least 15% of their outstanding long term mortgage loans with long term securities by the time the MFAR enters into force (1st of April 2017)

Since mortgage bonds are already used in Hungary as the traditional financing tool for long term funding, banks will either enter into refinancing agreements with the already existing mortgage banks or (in the case of banks with large mortgage portfolios), new mortgage banks will be established. By the end of 2016 the number of mortgage banks will double from 3 to 6.

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

	Hungary 2014	Hungary 2015	EU 28 2015
Real GDP growth (%) (1)	3.7	2.9	2.0
Unemployment Rate (LSF), annual average (%) (1)	7.7	6.8	9.4
HICP inflation (%) (1)	0.0	0.1	0.0
Outstanding Residential Loans (mn EUR) (2)	17,146	14,872	7,040,807
Outstanding Residential Loans per capita over 18 (EUR) (2)	2,106	1,828	17,047
Outstanding Residential Loans to disposable income ratio (%) (2)	29.5	24.5	n/a
Gross residential lending, annual growth (%) (2)	42.2	51.8	n/a
Typical mortgage rate, annual average (%) (2)	8.5	6.2	2.8*
Owner occupation rate (%) (1)	88.2	86.3	n/a**
Nominal house price growth (%) (2)	3.3	17.7	3.6

** Please note that this value is the simple average of the typical interest rate of the EU 28 countries.*

*** Please note that for the EU this data has a one year lag. For the latest available data please refer to statistical table 10.*

Sources:

(1) Eurostat

(2) European Mortgage Federation - Hypostat 2016, Statistical Tables.

Hungary Fact Table

Entities which can issue mortgage loans:	Banks, specialised mortgage banks, savings cooperatives, home savings banks, financial companies (mortgage houses) can issue mortgage loans in Hungary.
The market share of the mortgage issuances:	Banks issued 48.8%, mortgage banks 24.6%, savings banks 4.2% and savings cooperatives 22.4% of the new mortgage issuances. (proportions in volume)
Proportion of outstanding mortgage loans of the mortgage issuances:	Banks hold 63%, mortgage banks 27%, savings banks 3% and home saving cooperatives 7% of the total outstanding mortgage loan portfolio. (proportions calculated in volume)
Typical LTV ratio on residential mortgage loans:	According to the National Bank of Hungary, the average LTV ratio of new housing loans issued in 2015 was around 60%.
Any distinction made between residential and non-residential loans:	In the residential loan portfolio we understand on the one hand the so called "housing loans", when the purpose of the loan is to finance the acquisition or purchase of a house or flat. On the other hand in the residential mortgage loan portfolio the so called "home equity loans" are also included, when the purpose is to get a loan with a mortgage on the already existing home property. "By to let mortgages" taken by private individuals at present are also included in the residential loan portfolio, and statistically are not registered separately.
Most common mortgage product(s):	The most typical mortgage product is the housing loan denominated in HUF granted by banks and mortgage banks (purpose is the purchase a flat or house). Home equity loans are much less popular, than before the financial crisis of 2007. Foreign currency loans were prohibited in 2010, and the exisiting foreign currency loans were converted to HUF at the beginning of 2015.

Typical maturity of a mortgage:	Typical/average maturity for a mortgage was around 14 years in 2015. Typical maturity is longer for housing construction loans (16 years) and loans for the purchase of new dwellings (15 years).
Most common way to fund mortgage lending:	The most common way to fund mortgage lending is funding from deposit, although the mortgage banks fund their lending activity from issuing mortgage bonds. Pursuant to the Forint conversion Act the National Bank of Hungary is planning to introduce from the 1st of April 2017 Mortgage Loan Financing Adequacy Ratio (MFAR).
Level of costs associated with a house purchase:	A transfer (stamp duty) tax of 2- 4% is to be paid by the buyer to the National Tax Office. (2% until HUF 4 Million, and 4% on all value over HUF 4 Million) Legal fees may range from 0.5 - 1% of the property price. When the the property is sold through a Real estate agency, a further 2 - 3% is generally paid by the Seller. Buying a new flat is subject to VAT payment (reduced from 27% to 5% from 2016 onwards)
The level (if any) of government subsidies for house purchases:	A new lump sum subsidy was introduced from the summer of 2015, helping the families with children acquiring their first home. The subsidy is granted according to the number of children and the amount will vary between HUF 500,000 and max HUF 3.2 Million. For families with 3 or more children a non-refundable lump sum subsidy of HUF 10 Million and a further HUF 10 Million loan is available at preferential fixed interest rate for the purchase of a new dwelling.

Ireland

By Anthony O'Brien, Banking & Payments Federation Ireland

Macroeconomic Overview

GDP grew in volume terms by 7.8% in 2015, and GDP per capita rose to EUR 43,906. While the economy had relied on net exports to drive growth in previous years, domestic demand contributed most to the growth in 2014 and 2015, increasing by 9.3% in 2015. Capital formation rose strongly by 28.2% during 2015, with personal consumption up by 3.5%.

The improvement in business output was broad based with value added increasing in all business sectors in 2015. Manufacturing increased by 14.2% and building and construction by 8.8%.

Key consumer indicators improved significantly during 2015. The unemployment rate continued to decline throughout 2015, ending the year at 9.4% in December 2015 on a seasonally-adjusted basis, down from 11.3% a year earlier. The ESRI/KBC Bank Consumer Sentiment Index rose by 13.4 points y-o-y to 103.9 in December 2015. The seasonally-adjusted volume of retail sales grew by 8.2% in 2015 and by 6.1% when motor trades are excluded.

Inflation slowed for the fourth successive year, with the EU Harmonised Index of Consumer Prices for Ireland unchanged in 2015 according to Eurostat, compared with an increase of 0.3% in 2014.

Housing and Mortgage Markets

The housing and mortgage markets continued to grow in 2015 as they benefitted from improvements in consumer confidence, increased employment and pent-up demand for housing.

The shortage of supply of newly-built homes continued to be the key issue facing the Irish housing market during 2015. The general consensus amongst housing market stakeholders is that there is a medium to long-term requirement to build approximately 25,000 housing units per annum nationally and around 7,000 units in Dublin. Data from the Department of the Environment, Community and Local Government show that 12,666 housing units were completed in 2015, an increase of around 15% compared to 2014 completions. Nearly 48% of housing units built in 2015 were self builds and only 2,891 units were built in Dublin during the same period.

Looking at commencements figures we see that in 2015 there was a 5% increase in commencements nationwide, compared to 2014 (8,093 vs. 7,717). However, detailed data show that nearly 40% of these commencements are for one-off builds and only 38% are in the boundaries of Dublin local authorities.

CSO data shows that residential property prices rose by 6.6% in the year to December 2015. This is much lower than the levels of above 15% between mid-2014 and early 2015. The slowdown in prices is mainly driven by the capital; however, outside of Dublin house-price inflation was at 10.2% in December 2015. It is likely that macro-prudential rules introduced by the Central Bank of Ireland (CBI) in 2015 (see CBI LTV and LTI Limits (from February 2015)) had an effect on slowing property price inflation in Dublin; but perhaps they also helped to increase inflation outside the capital by shifting demand from the capital to other regions.

The number of residential property sales grew by 12% in 2015 to almost 49,000, according to an analysis of sales on the Residential Property Price Register published in the BPFI Housing Market Monitor. Growth was spread throughout the country. However, for the third successive year, growth in Dublin lagged the nationwide rate, with transactions up by 8.7% to around 15,000. By 2015, Dublin's share of transactions had dipped to 31%, from 35% two years earlier. In the other regions, Munster overtook the rest of Leinster (excluding Dublin) – they accounted for 26% and 25% of transactions, respectively, with 18% in Connacht-Ulster.

The mismatch between current demand, combined with pent-up demand, and the supply of new homes has put significant upward pressure on rental accommodation availability as well as rent levels in 2015, particularly in Dublin. New listings of residential property for rent on the Daft.ie website show that rents increased nationwide by an average of 9% in Q4 2015, compared to 10.7% in Q4 2014 and 6.7% in Q4 2013. Rents have now risen by an average of 32% since their lowest point in 2012. The same report shows that nationally there were just 3,600 homes available to rent on 1 February 2016; the lowest total since Daft.ie first reported rent listings in 2006. On the same date in Dublin, there were only 1,400 properties available to rent, whereas the average has been around 5,200 properties available to rent between 2008 and 2012.

Mortgage activity in 2015 is likely to have been affected by the Central Bank of Ireland's introduction of LTV and LTI limits for new mortgage lending in February 2015.

CBI LTV and LTI Limits (from February 2015)

	LTV for principal dwelling houses (PDH)			LTV non-PDH	LTI for PDH mortgages
Buyer type	First-time buyer (FTB)		Non-FTB PDH	Non-PDH	All PDH
Property value	Up to EUR 220,000	Over EUR 220,000	All	All	All
Limit	90% LTV	90% LTV on the first EUR 220,000, 80% LTV on any excess over EUR 220,000	80% LTV	70% LTV	3.5 LTI (loan to gross income)
Buffers	The total value of new lending for PDH mortgages above these limits should be no more than 15% of the euro value of all new PDH mortgages during an annual period.			The total value of new lending for non-PDH mortgages above these limits should be no more than 10% of the euro value of all new non-PDH mortgages during an annual period.	The total value of new lending for PDH mortgages above these limits should be no more than 30% of the euro value of all new PDH mortgages during an annual period.
Exceptions	Housing loans for borrowers in negative equity who wish to obtain a mortgage for a new property are not within the scope of the LTV limits.				Switcher mortgages and housing loans for the restructuring of mortgages in arrears or pre-arrears are not in the scope of the Regulations.

According to BPFI data, a total of 29,925 mortgages were approved in 2015, based on the three-month moving average an increase of 13% on 2014. Mortgages for residential property purchase (including buy-to-let or residential investment letting property) grew by 8% year-on-year, while re-mortgages and top-ups grew for the first time since the series began in 2011. The value of mortgages approved in 2015 amounted to more than EUR 5.6 billion; where around EUR 5.1 billion of this was for residential property purchases, the rest accounted for by re-mortgages and top-ups.

The value of mortgage drawdowns in 2015 amounted to EUR 4.9 billion where EUR 4.4 billion of this is accounted for by residential property purchases. The rate of growth was much lower in the second half of 2015 especially for first-time buyers (FTBs) and mover purchasers, perhaps reflecting the effects of the macro-prudential rules introduced by the CBI in February 2015. The value of mortgage drawdowns increased by around 26% overall in 2015 compared to 2014.

In terms of net lending, the trend of household deleveraging continued with the total amount of residential and commercial mortgage debt outstanding, including securitisations, declining from about EUR 115.7 billion at the end of 2014 to about EUR 110.7 billion a year later, according to the CBI. Half of the value of personal mortgages outstanding was on tracker rates linked to the ECB base rate, while a further 42.1% was on standard variable rates.

In line with the improving economic environment and lender efforts to agree sustainable solutions for mortgage customers in difficulty, the number of mortgage accounts for principal dwelling houses (PDH) in arrears of more than 90 days fell to 8.3% of all PDH mortgage accounts by the end of Q4 2015, down from 10.4% a year earlier. Some 17% of BTL mortgage accounts were in arrears of more than 90 days, down from 20.7% in Q4 2014.

Mortgage lenders are active in assisting borrowers who experience repayment difficulties, which is demonstrated by the fact that 16.2% of all PDH accounts and 20% of all BTL accounts had an active restructure by the end of 2015. The number of repossessions remained low by international standards with 2,376 repossessions in 2015, or 0.27% of mortgage accounts at year end. About 46% were voluntarily surrendered or abandoned, while the remainder were repossessed on foot of a court order.

Mortgage Funding

Banks in Ireland rely mainly on retail funding sources (household and corporate deposits) for mortgage lending. Deposit levels were broadly stable during 2014. Deposits from the Irish private sector grew by 5% y-o-y in December 2015. There was a notable shift to short-term deposits with overnight deposits up 15.5%.

Some EUR 33.7 billion in mortgages outstanding were securitised at the end of 2015, down from EUR 37.4 billion a year earlier, according to the CBI.

Mortgage covered bonds outstanding in Ireland fell by 8% in 2015 to EUR 16.9 billion. Some EUR 5.2 billion in new mortgage covered bonds was issued during 2015, the highest value since 2012.

	Ireland 2014	Ireland 2015	EU 28 2015
Real GDP growth (%) (1)	5.2	7.8	2.0
Unemployment Rate (LSF), annual average (%) (1)	11.3	9.4	9.4
HICP inflation (%) (1)	0.3	0.0	0.0
Outstanding Residential Loans (mn EUR) (2)	91,617	89,147	7,040,807
Outstanding Residential Loans per capita over 18 (EUR) (2)	26,830	26,030	17,047
Outstanding Residential Loans to disposable income ratio (%) (2)	106.4	94.6	n/a
Gross residential lending, annual growth (%) (2)	54.5	25.8	n/a
Typical mortgage rate, annual average (%) (2)	3.4	3.5	2.8*
Owner occupation rate (%) (1)	n/a	n/a	n/a**
Nominal house price growth (%) (2)	13.1	10.3	3.6

** Please note that this value is the simple average of the typical interest rate of the EU 28 countries.*

*** Please note that for the EU this data has a one year lag. For the latest available data please refer to statistical table 10.*

Sources:

(1) Eurostat
(2) European Mortgage Federation - Hypostat 2016, Statistical Tables.

Ireland Fact Table

Entities which can issue mortgage loans:	Credit institutions (mainly banks) as well as non-bank retail credit firms/home reversion firms.
The market share of the mortgage issuances:	The market shares of different entity types are not published for competition reasons, but most new lending is believed to be published by credit institutions (mainly banks).
Proportion of outstanding mortgage loans of the mortgage issuances:	Non-bank lenders accounted for 5.4% of the total stock of residential mortgage outstanding (PDH and BTL) at the end of 2015 (6.8% in value terms) according to the Central Bank of Ireland.
Typical LTV ratio on residential mortgage loans:	The mean average LTV for a sample of four large banks was 71%. This is for new mortgages for home-owner property purchase. A separate study by the Central Bank of Ireland showed that 60% of new loans had LTVs of 80% or less, 9% had LTVs between 80% and 85%, 23% had LTVs between 85% and 90% and 12% had LTVs of over 90%.
Any distinction made between residential and non-residential loans:	Residential mortgage loans include loans for residential property purchase (both for owner-occupation and buy-to-let), as well as re-mortgage or switching between lenders and top-up or equity withdrawal. Non-residential mortgages include commercial mortgages, where finance is provided for the purchase of a business premises. Where legal entities manage a number of buy-to-let properties, these may be treated as commercial entities rather than residential buy-to-let but this categorisation is at the discretion of the lender.
Most common mortgage product(s):	The standard variable rate mortgage for home purchase, based on the French amortisation profile, is the most popular product among new customers, although a growing number of customers are choosing fixed-rate mortgages. More than half of existing mortgages have tracker rates mainly linked to the ECB base rate.
Typical maturity of a mortgage:	For first-time buyers the average maturity for a mortgage is about 30 years. For second-time home buyers it is about 25 years.
Most common way to fund mortgage lending:	Retail deposits are the main source of funding for mortgage lending, but covered bonds and residential mortgage-backed securities are also important.
Level of costs associated with a house purchase:	Legal fees related to the purchase of the property are estimated at EUR 1,000-2,000. Buyer surveyor fees range from EUR 250 to EUR 1,000. Estate agent fees vary between 1% and 2% of the purchase price. VAT is charged on the sale of new residential properties. Stamp duty is charged on the VAT-exclusive price and is levied at 1% on the first EUR 1 million (1% of the total if the VAT-exclusive price is up to EUR 1 million) and 2% any amounts above EUR 1 million.
The level (if any) of government subsidies for house purchases:	Not available

Italy

By Marco Marino, Associazione Bancaria Italiana

Macroeconomic Overview

After three years of contraction, the Italian economy returned to growth in 2015, albeit at a moderate pace (0.8%). However, GDP still lagged some 8 pps below pre-crisis levels.

According to the Bank of Italy, domestic demand was the main driver of growth.

The upturn in household consumption that began in 2013 continued last year, spreading to all the main expenditure items, including components other than durable goods; investments began to expand again. The recovery of disposable income has benefited from the improvement of the labour market, the measures Government has taken and the slight rise in housing wealth.

In 2015 domestic demand provided a positive contribution to real GDP equal to 1.1% (from -0.4% in 2014). In particular, private consumption contributed to GDP performance with +0.5%, while public consumption contributed with -0.1%. Gross fixed capital formation increased by 0.8% y-o-y, (further to a contraction of 3.4% in 2014) and contributed to growth with 0.1%;changes in inventories contributed with 0.5%.

In the second half of 2015, exports suffered the slowdown of world trade; however, they increased by 4.3% and influenced GDP performance by +1,3%.

As economic growth resumed, employment increased in 2015, benefiting from the social security contribution relief for permanent employment which was introduced at the beginning of last year and from the changes to the rules on lay-offs introduced by the Jobs Act.

In 2015 the unemployment rate fell by 0.8 pps and reached 11.9%, from 12.7%. Also among young people under 25 years the unemployment rate fell to 40.3% from 42.7%.

Industrial production returned to growth, but is still more than 20 pps lower than in the first quarter of 2008, and household confidence has improved markedly. The national consumer price index reached 0.1, the lowest level.

Finally, with reference to public finance, Italy's general government deficit decreased by 0.4 pps and reached 2.6% of GDP. The debt-to-GDP ratio reached 132.7%.

Housing and Mortgage Markets

Housing market

In 2015, the Italian residential market confirmed the positive trend registered in the previous year. Housing transactions amounted to circa 449,000, representing an unequivocal sign of recovery and an increase of more than 7.5% with respect to 2014.

In particular, the analysis across macro geographical areas (Central, North, South, Islands) shows that in the North East – which represents 19.5% of the market – the increase of housing transactions was +9.6% higher than that recorded in other areas.

According to the Italian Revenue Agency, several factors have led to this positive performance.

First of all, the economic situation has improved and there are signs of recovery that are reflected in the improvement of several Italian consumer confidence indexes; in this respect, the index used to understand the propensity of Italian families to make purchases with a significant long-term impact, such as the purchase of a house, increased from an average of 108.7 in 2014, to 120.7 in 2015.

Secondly, bank lending for housing purchases increased in 2015 and the interest rate continued to decrease. Housing transactions with a mortgage rose by 19.5% with respect to the previous year and the average interest rate fell to 2.50% at the end of 2015.

Finally, residential house prices, for both new and existing residential properties, continued to decrease and contributed to the improvement in the performance of sales: the purchase of a house is perceived as something that "we cannot miss". This induced a greater purchase propensity in 2015, in the prevision of a future increase in prices. In particular, the House Price Index decreased by 2.9% (y-o-y). More in detail, the prices of new dwellings decreased by 1.3% compared to 2014, while the prices of existing dwellings declined by 2.8%.

In 2015, the estimate of the Italian construction market showed a decline y-o-y of 1.3% in terms of new investments.

In this context, the number of building permits issued for the construction of new homes continued to decrease from circa 53,000 to 50,000 estimated for 2014 (latest data available). The renovation of residential buildings, which represented 36.3% of the Italian construction market in terms of investment value, continued to be the only sector that registered positive performance.

Mortgage markets

During 2015, new loans for housing purchase continued to register excellent growth.

According to a survey by the Italian Banking Association which focused on 80 banks representing about 80% of the Italian market, residential loans increased on an annual basis by approximately 97%.

Outstanding residential loans, after three years of slight reductions, increased by 0.7%, reaching EUR 361,8 billion.

The excellent performance of the mortgage market was directly related to the improvement in demand which began in 2014, after three years of decline, driven by favourable interest rates and housing prices.

In 2015, housing transactions with a mortgage amounted to circa 193,000 units, with a rate of increase of 19.5% with respect to the previous year. The North-East had the highest increase y-o-y (+23.2%) but, in absolute terms, it was the North-West which had the highest number of transactions with a mortgage, equal to 36.4% of the total, followed by the Centre with 22%. The average amount of mortgages remained stable at around EUR 119,000; in particular, the majority of mortgages falls within the EUR 101,000-200,000 category (50% of new loans). Mortgages up to EUR 100,000 (from 27% to 28% of new loans) registered a slight increase.

Of particular significance, in 2015 fixed-rate mortgages represented approximately 50% of loans. With interest rates at historic lows, many families preferred not to expose themselves to the risk of future increases, choosing the certainty of a constant rate over the life of the contract.

As regards maturity, in 2015 the analysis shows a decrease of mortgages with a maturity of >26 years (30%) with respect to the previous year (37%). Mortgages with a maturity within the 11-15 and the 16-20 years categories registered a slight increase.

The average interest rate on short term loans (with a maturity of <1 year) fell to 2.0%, from 2.6% at year-end 2014 while the 10-year fixed rate reduced to 2.8% (from 3.7%). The average interest rate on new residential mortgage loans decreased to circa 2.5% from the 2.8% of the previous year.

With reference to risk analysis, banks' strategies and more cautious consumer demand have mitigated over time the risk of this market. Also the drop in interest rates contributed to the positive performance; in particular, a close-to-zero Euribor also for 2015 reduced the instalments of variable-rate loans, making them more sustainable.

In this resepct, at the end of 2015, the default rate to 180 days fell to 1.6%, the lowest level since 2011. The default rate to 90 days shows a similar trend, although at higher levels (2.3% in December 2015, compared to 2.7% in 2014).

A further confirmation of the quality improvement of loans comes from the lower risk of the most recent mortgages loans, compared to those of previous years.

Mortgage Funding

At the end of 2015, deposits in Euros of all Italian banks, comprised of resident customer deposits and bonds was equal to EUR 1,697.4 billion, representing a reduction of 0.6% compared to the value of the previous year.

A focus on the various components shows that resident customer deposits grew by EUR 47.3 billion (+3.7%), while bank bonds decreased by EUR 57.5 billion (-13%) with respect to the previous year.

The Italian covered bond market displayed a decrease in the level of issuance in 2015. In 2015, covered bond issues amounted to circa EUR 29.35 billion (-27.5% compared to 2014), while the volume of outstanding bonds did not significantly change, stabilising at approximately EUR 130 billion .

With reference to the securitisation market, in 2015 the volume of ABS issues amounted to approximately EUR 32.2 billion.

	Italy 2014	Italy 2015	EU 28 2015
Real GDP growth (%) (1)	-0.3	0.8	2.0
Unemployment Rate (LSF), annual average (%) (1)	12.7	11.9	9.4
HICP inflation (%) (1)	0.2	0.1	0.0
Outstanding Residential Loans (mn EUR) (2)	359,137	361,835	7,040,807
Outstanding Residential Loans per capita over 18 (EUR) (2)	7,094	7,137	17,047
Outstanding Residential Loans to disposable income ratio (%) (2)	32.6	32.6	n/a
Gross residential lending, annual growth (%) (2)	20.7	90.3	n/a
Typical mortgage rate, annual average (%) (2)	2.8	2.5	2.8*
Owner occupation rate (%) (1)	73.1	n/a	n/a**
Nominal house price growth (%) (2)	-1.7	-2.9	3.6

** Please note that this value is the simple average of the typical interest rate of the EU 28 countries.*

*** Please note that for the EU this data has a one year lag. For the latest available data please refer to statistical table 10.*

Sources:

(1) Eurostat
(2) European Mortgage Federation - Hypostat 2016, Statistical Tables.

Italy Fact Table

Entities which can issue mortgage loans:	Banks and financial intermediaries.
The market share of the mortgage issuances:	More than 95% of new mortgage loans are issued by banks.
Proportion of outstanding mortgage loans of the mortgage issuances:	Data not available.
Typical LTV ratio on residential mortgage loans:	69.3% as for 2015.
Any distinction made between residential and non-residential loans:	Residential loans are loans granted for house purchase and renovation.
Most common mortgage product(s):	Variable interest rate mortgage loans to purchase residential real estate.
Typical maturity of a mortgage:	20-30 years.
Most common way to fund mortgage lending:	Given Italy's universal banking model, there is not a specific funding source for mortgage lending. That said, the most common funding technique is represented by unsecured bank bonds which, in turn, represents also the most common way for funding mortgage lending. For major Italian banking groups, covered bonds recently started to play an increasing role as a funding source for mortgage lending.
Level of costs associated with a house purchase:	Data not available. In addition to costs relating to taxation on transfer, the main costs are related to real estate brokerage agency (if existing), and notary costs. The real estate taxation in Italy affects both direct (on income and capital) and indirect (on transfers and contracts) taxes and depend on the players involved (individuals or companies) and on the nature of the properties (land, buildings, commercial or residential).
The level (if any) of government subsidies for house purchases:	Regarding tax benefits, homeowners can benefit some fiscal advantages for the "first home" purchase, which consist of smaller indirect taxes than the ordinary value. With reference to public guarantees on residential loans for house purchase, in 2014 the "First home mortgage guarantee fund" entered into force. The public Fund has a budget of about 650 million and will offer guarantees on mortgage financing for an estimated amount of 14 billion euro.

Latvia

By Jekaterina Selgova, Latvijas Banka

Macroeconomic Overview

Latvia's economic growth remained modest in 2015: real GDP increased by 2.7%. Low investment activity and weak external demand slowed the GDP growth down, while private consumption remained the key growth driver on the expenditure side also in 2015 (3.3% increase), supported by a rather steep acceleration of real net wages. Gross fixed capital formation increased 2.7%.

Despite reduced Russian demand and depreciation of the rouble as well as the sluggish and uneven development in the euro area, the current account deficit in 2015 decreased to 1.2% of GDP (2.0% of GDP in 2014), which, to a large extent, reflects the improvement of the goods balance basically on account of weakening imports (as a result of weak domestic investment activity) and export development as well as the falling global prices.

In 2015, unemployment continued its downward trend (from 10.8% in 2014 to 9.9% in 2015 of the economically active population). The drop in unemployment is expected to continue slowly without breaking loose from the natural level, as cyclical unemployment remained close to zero.

In 2015, the prices of commodities (mainly oil, agricultural and food products) in the global market had a downward impact on the annual inflation rate in Latvia. The impact of external supply-side factors was large enough to offset the upward domestic factors (increases in income and indirect taxes, and the electricity market liberalisation for households). Thus, inflation remained low for the third year in a row and in 2015 average inflation (HICP) stood at 0.2%.

In 2015, the government ran a deficit of 1.3% of GDP (vs. 1.4% in 2014). The improvement of the budget balance was supported by an increase in tax revenue supported by the economic and labour market developments. At the same time, weaker absorption of the EU funds and lower capital spending of local governments resulted in deceleration of expenditure growth in comparison with 2014. The public debt decreased from 40.8% to 36.4% of GDP, mainly as a result of the repayment of a EUR 1.2 billion loan to the European Commission and the issuance of EUR 500 million in Eurobonds.

Housing and Mortgage Markets

Activity on the housing market continued to shrink markedly at the beginning of 2015, most notably within the segments of interest to non-residents due to the amendments to the Immigration Law, which raised the threshold value for acquiring a temporary permit of residence via real estate investment from EUR 142,300 to EUR 250,000 in September 2014. Resident demand for its part was negatively impacted by uncertainty regarding the potential introduction of the mandatory non-recourse principle for new mortgage loans to households in the Insolvency Law. At the beginning of 2015, the non-recourse principle was eventually introduced, but as an option rather than a mandatory requirement.

In 2015, the launching of the programme of state-issued guarantees for construction or purchase of first houes positively impacted the real estate market. Thus, the real estate market started to recover gradually, supported also by an increase in the real disposable income of households. The number of real estate purchase transactions registered with the State Land Register reveals rather moderate activity in the residential real estate market – in 2015 the number of residential real estate deals on average decreased by 2.9%.

Housing market price developments should be assessed considering the base effects of the previous year, when the amendments to the Immigration Law led to a notable decrease in the prices for new apartments in Q4 2014 and to a lesser decrease in the prices for existing dwellings. Against the backdrop of these developments, the house price index for new apartments calculated by the Central Statistical bureau increased by 14.6% y-o-y in Q4 2015, but decreased on average by 7.7% in 2015; the house price index for existing dwellings increased by 4.5% y-o-y in Q4 2015, but decreased on average by 2.1% in 2015; the house price index of total dwellings respectively rose by 6.6% y-o-y in Q4 2015, but decreased on average by 3.4% in 2015. At the same time prices in the most representative residential real estate market segment (standard apartments in Riga suburbs) continue to be on a very gradual upward trend (annual average price increase for these apartments was 3.5% during the 12 months of 2015).

Activity in housing construction decreased in 2015 after the announcement of the above mentioned amendments to the Insolvency and Immigration Laws. Both the number of new housing completions and new housing residential space completed decreased by 14.8% and 8.0% respectively, compared to 2014. Issued buildings permits dropped by 2.4% y-o-y for new residential projects.

Average household housing affordability slightly increased in 2015 as the rise in real disposable income exceeded the standard apartment price growth, according to the real estate companies' estimates. The average time needed to accrue the down payment and the ratio of monthly loan payment to average wage slightly decreased as well. Mortgage lending will, most likely, rebound in the medium term, with household income gradually increasing and labour market conditions slowly improving. This development should contribute to a further moderate expansion of the activity in the real estate market and the relevant construction segment.

The overall level of rent prices remained rather stable in 2015. However in the top-price segment a slight decrease was observed as the amendments to the Insolvency Law have increased the supply in the housing rental market that previously was intended for sale to the non-resident sector.

The rate of decrease of the outstanding mortgage loans to resident non-financial corporations and households has slowed down thanks to household income gradually increasing and to the state-guarantee program. The volume of outstanding mortgage loans to residents at the end of 2015 was EUR 6.4 billion, 5.3% down, compared to 2014 (in 2014 EUR 6.8 billion and 8.2% down, compared to 2013). Meanwhile, housing loans to households decreased by 4.4% and amounted to EUR 4.5 billion or 15.1% of GDP.

In 2015, around 1,200 mortgage loans, supported by the state guarantee, were issued, amounting to EUR 55 million (14% of total mortgage loans, or 20% of total mortgage loans volume). However, households' saving levels is still low, limiting availability of mortgage to households.

The share of housing loans past due over 90 days decreased from 7.9% at the end of 2014 to 6.2% at the end of 2015, and the share of restructured housing loans is also gradually decreasing. According to the Latvian legislation, the LTV ratio cannot exceed 90% (for the programme of state-issued guarantees for construction or purchase of the first house, the LTV upper limit is 95%). Amid the steady environment of low interest rates, effective interest rates on EUR-denominated housing loans are stable (3.43% in 2015, compared to 3.44% in 2014).

Mortgage Funding

Credit institutions in Latvia obtain funding mostly from depositors and from parent banks. The importance of domestic deposits as a source of financing is stable with a share of approximatively 33.9% in 2015 (close to year before 34.8%) of the banks' total liabilities by end 2015, while the share of liabilities to foreign parent MFIs decreased to 8.4% (down from 10.2% a year before). In 2015, there were no mortgage covered bonds issued by Latvian MFIs.

	Latvia 2014	Latvia 2015	EU 28 2015
Real GDP growth (%) (1)	2.4	2.7	2.0
Unemployment Rate (LSF), annual average (%) (1)	10.8	9.9	9.4
HICP inflation (%) (1)	0.7	0.2	0.0
Outstanding Residential Loans (mn EUR) (2)	4,703	4,503	7,040,807
Outstanding Residential Loans per capita over 18 (EUR) (2)	2,841	2,750	17,047
Outstanding Residential Loans to disposable income ratio (%) (2)	33.6	30.2	n/a
Gross residential lending, annual growth (%) (2)	11.8	9.7	n/a
Typical mortgage rate, annual average (%) (2)	3.4	3.4	2.8*
Owner occupation rate (%) (1)	80.9	80.2	n/a**
Nominal house price growth (%) (2)	6.0	-1.6	3.6

** Please note that this value is the simple average of the typical interest rate of the EU 28 countries.*

*** Please note that for the EU this data has a one year lag. For the latest available data please refer to statistical table 10.*

Sources:

(1) Eurostat
(2) European Mortgage Federation - Hypostat 2016, Statistical Tables.

Latvia Fact Table

Entities which can issue mortgage loans:	The credit institutions, credit unions and non-bank financial institutions can issue mortgage loans in Latvia
The market share of the mortgage issuances:	Not available
Proportion of outstanding mortgage loans of the mortgage issuances:	The mortgage market is significantly dominated by mortgage issued loans by the banks (over 99% of total mortgage loans).
Typical LTV ratio on residential mortgage loans:	By the Latvian legislation LTV cannot exceed 90%. For the programme of state-issued guarantees for construction or purchase of the first housing LTV upper limit is 95%.
Any distinction made between residential and non-residential loans:	The distinction is based on the loan issuing purpose (defined by Latvijas Banka's Regulation for Compiling the Monthly Financial Position Report of Monetary Financial Institutions).
Most common mortgage product(s):	The most common mortgage product is loan issued to purchase of a home or an apartment.
Typical maturity of a mortgage:	The typical maturity of the mortgage is 20 years.
Most common way to fund mortgage lending:	See part Mortgage funding.
Level of costs associated with a house purchase:	In addition to the stamp duties, registration fees have to be paid. 0.1% from the mortgage loan sum has to be paid for the mortgage registration and 2% from the real estate value have to be paid for the real estate purchase as the stamp duty. For the programme of state-issued guarantees for construction or purchase of the first housing the stamp duty is decreased to 0.5% instead of 2%.
The level (if any) of government subsidies for house purchases:	The Latvian government does not provide direct subsidies for house purchase; however it is possible to get the state loan guarantee in amount of 10%-20% for families with children.

Lithuania[1]

By Jonas Grincius, AB Citadele Bankas

Macroeconomic Overview

A major economic event in Lithuania in 2015 was the adoption of the euro. On January 1, Lithuania became a member of the Eurozone. The euro was adopted at the exchange rate of 3.4528 LTL for 1 EUR. The majority of the population did support the introduction of the common currency, despite the widespread sentiment that prices would increase; official statistics for 2015 did not support this claim. The main burden of this introduction fell on the shoulders of the Central Bank and commercial banks, whose agendas were dominated by the transition to the euro for the last nine months of 2014 and the first quarter of 2015, and most of the product innovation and development was halted during this period.

Lithuania's economy grew in 2015, although the pace decreased from its peak in 2011. In 2015, GDP grew by only 1.6%, a sharp decrease from the 3.0% in 2014; this was influenced by the Russian sanctions as the country was realigning its exports from the east to the west. A major decline happened in the first half of 2015, while the export volumes rebounded as the year came to an end. Export of food products and transportation remain important GDP contributors, though the service sector's contribution grows consistently each year. The GDP growth forecast for 2016 is about 2.9% and for 2017 – 3.3%.

Unemployment continued to decrease in 2015, reaching 9.1%, compared to 10.7% in 2014. In the third quarter of 2015 unemployment reached 8.3%, which shows a clear downward trend, as businesses start to compete heavily for qualified personnel. Gross wages increased by 5.5% in 2015 compared to 2014, which is more than the 4.3% y-o-y increase of the previous year. The 2015 increase was fuelled also by the adoption of the euro and follows the patterns of post-euro introduction increases in Estonia and Latvia. Annual inflation in 2015 was negative at 0.7% due to a drop in global energy prices; common consumer prices did not experience a price decline.

Housing and mortgage markets

Housing market

The homeownership rate in Lithuania continued to be among the highest among European countries with above 90%, due to a relatively easy privatisation of the housing stock after Lithuania regained its independence in 1990. 2015 saw growth in the residential housing market both on the supply and demand side, though the indicators were slightly below the 2014 level. According to retail professionals' data, apartment prices increased by 3.6% in 2015, compared to 5.1% in 2014. This growth can be seen in all regions of Lithuania, with major developments in the capital city of Vilnius. In Vilnius, 3,558 apartments were constructed in 2015, which constituted an increase of 27% with respect to previous year. Demand was also good in 2014, though it did not reach the levels of 2015. In 2015, 3,150 apartments were purchased directly from developers, according to real estate professionals' data.

Mortgage markets

According to statistics of the Bank of Lithuania, the outstanding mortgage loan amount at the end of 2015 reached EUR 6,093 million, a 2.5% increase with respect to the EUR 5,945 million in 2014, which, in turn, was an increase of 1.9% with respect to the previous year. New loan issuance in 2015 grew by 19.9% from EUR 876 million to EUR 1,050 million. Interest rates for mortgages continued to fall, reaching 1.88%, compared to 2.15% in 2014.

Market growth occurred despite the enforcement of the Responsible Lending Guidelines by the Bank of Lithuania. These guidelines set a cap of 85% the on LTV ratio, a DTI ratio of 40% and a maximum maturity of 30 years (10 years less than what was available on the market). For DTI calculations banks have to use actual interest rates, but not below 5%, to offset the current low-rate environment. For reference, before the DTI introduction, the industry standard was to use a flat amount based on the family size, which varied from bank to bank. The use of a DTI ratio had a limiting effect on larger size mortgages, as the previous flat rate system allowed for more income to be available for mortgage payment. The above statistics show that, in spite of all, the market adjusted to the change and continues to grow.

Mortgage Funding

In 2015, as in previous years, deposit-financed lending remained the primary source of mortgage funding. The deposit trend was especially strengthened by the introduction of the euro, with many clients bringing their cash savings to the banks. The competitive landscape is dominated by SEB, Swedbank, DNB and Danske bank (listed in the order their mortgage market share). The above four banks together comprise 97% of the mortgage market. Since all of them have strong parent banks, they are in a good position to provide relatively cheap mortgage funding in Lithuania based on local deposits and parent funding. The current economic landscape, especially the total size of the market and the prevailing rates, precludes banks from using innovative mortgage funding instruments like securitisation or covered bonds issues.

	Lithuania 2014	Lithuania 2015	EU 28 2015
Real GDP growth (%) (1)	1.6	1.6	2.0
Unemployment Rate (LSF), annual average (%) (1)	10.7	9.1	9.4
HICP inflation (%) (1)	0.2	-0.7	0.0
Outstanding Residential Loans (mn EUR) (2)	5,945	6,093	7,040,807
Outstanding Residential Loans per capita over 18 (EUR) (2)	2,466	2,542	17,047
Outstanding Residential Loans to disposable income ratio (%) (2)	26.1	n/a	n/a
Gross residential lending, annual growth (%) (2)	2.3	9.7	n/a
Typical mortgage rate, annual average (%) (2)	2.2	1.9	2.8*
Owner occupation rate (%) (1)	89.9	n/a	n/a**
Nominal house price growth (%) (2)	0.2	6.3	3.6

** Please note that this value is the simple average of the typical interest rate of the EU 28 countries.*

*** Please note that for the EU this data has a one year lag. For the latest available data please refer to statistical table 10.*

Sources:

(1) Eurostat
(2) European Mortgage Federation - Hypostat 2016, Statistical Tables.

[1] The views expressed in this article are those of the author alone and should not be interpreted as representing the views and/or positions of AB Citadele Bankas.

Lithuania Fact Table

Entities which can issue mortgage loans:	Banks and bank' branches.
The market share of the mortgage issuances:	100% banks.
Proportion of outstanding mortgage loans of the mortgage issuances:	100% banks.
Typical LTV ratio on residential mortgage loans:	No statistical data on average LTV is available. New buyers tend to max out with their LTVs getting close to 80%.
Any distinction made between residential and non-residential loans:	Based on type of property and whether this is the first or second mortgage. Second mortgage tends to be treated as an investment with rental purpose.
Most common mortgage product(s):	30 year, 6 month EURIBOR mortgages.
Typical maturity of a mortgage:	30 years.
Most common way to fund mortgage lending:	Deposits.
Level of costs associated with a house purchase:	Low to medium level associated.
The level (if any) of government subsidies for house purchases:	n/a

Luxembourg

By Daniele Westig, European Mortgage Federation – European Covered Bond Council

Macroeconomic Overview

In 2015, the GDP in Luxembourg continued to increase by a healthy 4.8%, an acceleration of 0.7 pps with respect to the previous year. The pillars to this growth over the last decade have been the overall private and public consumption and net export, especially from financial services. The financial sector remains the main economic engine of the country, which benefitted particularly from the momentum of the investment fund industry boosted by the non-conventional measures of the ECB's monetary policy. The current low interest rate environment, however, is limiting the performance of the banking and life-insurance sectors.

Demographic expansion and dynamic wages have sustained the purchasing power of households, which was marginally counterbalanced by an inflation rate higher than the EU average, though with 0.1% nearly inexistent. By contrast, investment figures show a volatile picture, swinging between a positive and a negative contribution depending on large purchases for the satellite and freight industries.

After showing strong resilience throughout the crisis, the pace of job creation accelerated in 2015 to 2.6% from 2.4% in 2014. All sectors posted a positive growth in 2015; however, cross-border workers benefited the most from this development as employment across non-resident workers increased by 3.2% in 2015 compared to 1.9% of nationals. Moreover, unemployment also increased slightly to 6.7%. Despite an overall positive picture of the labour market, the employment rates remain persistently low especially among the younger and older workers, both below the EU average.

Overall, public finances remain sound. However, the general government surplus declined in 2015 to 0.2% of GDP from 1.4% in 2014. Fiscal consolidation and expenditure savings have only in part counterbalanced the sharp drop in VAT revenue following the change in e-commerce regulation.

Housing and Mortgage Markets

The mortgage market in Luxembourg continues to grow at a sustained, though slightly decelerating pace, with outstanding and gross mortgage loans increasing by 6.2% and 11.5% respectively, thus reaching in both cases all-time highs. Besides sound underlying fundamentals, this increase can be also explained by the easing of lending criteria of Luxembourg banks, in line with the same trend observed across the Euro area. These eased conditions, principally due to the fierce competition among the few active banks in mortgage lending in the Grand Duchy, will continue to contribute to the high demand in the Luxembourg real estate market. Mortgage interest rates have continued to fall (in line with the general trend) for the fifth consecutive year, reaching 1.86% p.a. in 2015 and remaining among the lowest in Europe.

As the Luxembourg market for mortgage loans is dominated by variable-rate loans – though the share of fix-rate mortgages is increasing – borrowers are very sensitive to interest rate changes. For this reason, cuts in reference interest rates have large impacts on borrowing volumes, and ultimately on house prices, which increased significantly more in Luxembourg than in the other euro area neighbouring countries. Alone in 2015 the HPI of the Grand Duchy increased by 5.1% y-o-y. This dynamism is driven by both demand and supply factors. Excessive demand has contributed to this steep price development, which is exacerbated by migration-induced demographic pressures, the relatively strong purchasing power of resident households as well as bottlenecks on the supply side. A significant role is also played by socio-demographic factors such as the reduction of the size of households and the average size of dwellings. High house prices in Luxembourg City have also fostered urban sprawl to less densely inhabited areas in the country. On the supply side, the principal factors are connected to land availability and to the constraints of permit issuances due to administrative burdens. Notwithstanding the increased demand, the number of housing permits decreased by 28% to 4,558, which is marginally more than the 10-year average. The Doing Business Survey highlights scope for improvement particularly in the time required to complete the administrative procedure, which sees Luxembourg performing 50th out of 184 countries. Another slowing factor is the relative lack of land availability. Recent estimates show that 91.8% of constructible land is in the hands of private citizens or corporations, while the state and the municipalities own only 1.9% and 5.9% respectively. To overcome this bottleneck, in 2008 the government introduced a piece of legislation known as the Housing Pact, which granted financial incentives for municipalities to encourage housing development and introduced some new housing policy tools to compensate for the limited amount of land owned by the municipalities. This plan showed mediocre effects in a survey of 2014, and the government is currently planning to reform the Pact, paying particular attention to the actual allocation and continuous monitoring of the funds.

	Luxembourg 2014	Luxembourg 2015	EU 28 2015
Real GDP growth (%) (1)	4.1	4.8	2.0
Unemployment Rate (LSF), annual average (%) (1)	5.9	6.7	9.4
HICP inflation (%) (1)	0.7	0.1	0.0
Outstanding Residential Loans (mn EUR) (2)	25,038	26,599	7,040,807
Outstanding Residential Loans per capita over 18 (EUR) (2)	57,208	59,127	17,047
Outstanding Residential Loans to disposable income ratio (%) (2)	145.4	149.9	n/a
Gross residential lending, annual growth (%) (2)	18.2	19.9	n/a
Typical mortgage rate, annual average (%) (2)	2.0	1.9	2.8*
Owner occupation rate (%) (1)	72.5	n/a	n/a**
Nominal house price growth (%) (2)	3.7	5.1	3.6

** Please note that this value is the simple average of the typical interest rate of the EU 28 countries.*

*** Please note that for the EU this data has a one year lag. For the latest available data please refer to statistical table 10.*

Sources:

(1) Eurostat
(2) European Mortgage Federation - Hypostat 2016, Statistical Tables.

Luxembourg Fact Table

Entities which can issue mortgage loans:	Banks and bank' branches from German Bausparkassen and the "Caisse Nationale d'Assurance Pension", which lends only to private sector employees who contribute to the pension fund.
The market share of the mortgage issuances:	100%
Proportion of outstanding mortgage loans of the mortgage issuances:	Not available
Typical LTV ratio on residential mortgage loans:	The usual maximal LTV ratio amounts to 85%.
Any distinction made between residential and non-residential loans:	Not available
Most common mortgage product(s):	The most common mortgage contract is at a variable rate.
Typical maturity of a mortgage:	The standard maturity for mortgage loans is 20 to 25 years, while some banks grant credits for up to 40 years.
Most common way to fund mortgage lending:	Mostly deposits.
Level of costs associated with a house purchase:	Roundtrip transaction cost (registration tax, notary fees, real estate agent's fee, transcript tax) are between 12%-16.5%.
The level (if any) of government subsidies for house purchases:	In the case of affordable housing for sale, public support – 50% of study and infrastructure costs – is available under the condition that at least 60% of the homebuyers are people who qualify to obtain a construction subsidy from the state based on the household income.

Malta

By James Bonello, Malta Bankers' Association

Macroeconomic Overview

Malta's economy continued to grow in 2015, with GDP increasing 6.4% in 2015, from 3.5% and 4.3% in 2014 and 2013 respectively. In light of the subdued economy activity in the euro area, the Maltese economy thus showed a notable resilience, mainly driven by strong domestic demand, which, in turn, was facilitated by strong consumption and private investment. The Central Bank of Malta projects that growth will be above 5% in 2016, mainly supported by the same economic impetus. Looking at total investment alone in 2015 a notable increase of 21.4% in real terms was registered. The increased economic activity was reflected in employment rates, which rose by 1.2 pps to 63.8% in 2015. The unemployment rate as measured by the Labour Force Survey improved, continuing to decline from 5.8% in 2014 to 5.4% in 2015. The annual rate of change of government consumption slowed down from 7.2% in 2014 to 4.8% in 2015. According to the Central Bank of Malta's annual report, the general government deficit-to-GDP ratio was estimated at 1.6% in 2015 down from 2.1% compared to the previous year , with public debt estimated to have fallen to 63.6% of GDP, projected to decline further, reaching 61% by 2016 and 58.6% in 2017. Net exports rose by 2.4% meanwhile imports rose by 3.0%, thus dampening real GDP growth by 0.6%.

On the economic front, the European Commission has set out the following 2016 Country-Specific recommendations for the Maltese authorities:

- Correct prior macroeconomic imbalances in a sustainable manner enabling the Maltese authorities to exit the excessive deficit procedure put in place by the European Commission.
- Continue efforts to facilitate access to non-bank instrument, and ensure a more efficiency transport and logistical infrastructure and less structural bottlenecks to improve the condition for innovation and investment activities.
- Shift the use of public finances with regard to healthcare and pension systems to improve the efficiency of expenditure, meanwhile supporting a high education outcome to support the labor market.

Housing and Mortgage Markets

The Maltese mortgage market remained strong in 2015, with outstanding mortgage lending increasing 8.7% in 2015 compared to the previous year. Related to this, the construction industry continued the recovery of the previous two years, reflected by the number of permits issued for new dwellings, and supported in part by the low interest rate environment and the extension of fiscal incentives for first-time buyers.

The number of permits granted for new dwellings in Malta by the Malta Environment & Planning Authority reached 3,947 in 2015 compared to 2,937 permits granted 2014, reversing some of the decline recorded in previous years. The main driver behind this trend is, according to the Central Bank of Malta, an increase in demand for the largest residential category, namely apartments, which account for just over three quarters of permits granted.

The increase in building permits in both 2014 and 2015 was reflected in increased investment in dwellings causing property prices to increase, which is also reflected by the house price increase of 4.1% in 2015.

Mortgage Funding

The total value of residential units sold in 2015 amounted to approximately EUR 1.3 billion. The financial environment in Malta is furthermore characterised by a decline in interest rates on new mortgages, with a drop from 4.88% in 2008 to 2.99% in 2015.Given the macroeconomic environment within the Eurozone, interest rates are expected to remain low in the foreseeable future.

The 2015 increase in the Maltese mortgage market has been linked to the government's partial property tax exemption scheme for first time buyers, which has increased the incentive for mortgages.

Source:

(1) Eurostat
(2) The Central Bank of Malta
(3) Bank of Valletta

	Malta 2014	Malta 2015	EU 28 2015
Real GDP growth (%) (1)	3.5	6.4	2.0
Unemployment Rate (LSF), annual average (%) (1)	5.8	5.4	9.4
HICP inflation (%) (1)	0.8	1.2	0.0
Outstanding Residential Loans (mn EUR) (2)	3,588	3,901	7,040,807
Outstanding Residential Loans per capita over 18 (EUR) (2)	10,260	11,024	17,047
Outstanding Residential Loans to disposable income ratio (%) (2)	n/a	n/a	n/a
Gross residential lending, annual growth (%) (2)	n/a	n/a	n/a
Typical mortgage rate, annual average (%) (2)	2.9	3.0	2.8*
Owner occupation rate (%) (1)	80.0	n/a	n/a**
Nominal house price growth (%) (2)	2.6	4.1	3.6

** Please note that this value is the simple average of the typical interest rate of the EU 28 countries.*

*** Please note that for the EU this data has a one year lag. For the latest available data please refer to statistical table 10.*

Sources:

(1) Eurostat
(2) European Mortgage Federation - Hypostat 2016, Statistical Tables.

Malta Fact Table

Entities which can issue mortgage loans:	Main issuers are APS Bank Ltd; Bank of Valletta plc; Banif Bank (Malta) plc; HSBC Bank Malta plc; Lombard Bank Malta plc; Mediterranean Bank Group.
The market share of the mortgage issuances:	Not available
Proportion of outstanding mortgage loans of the mortgage issuances:	As an approximation, HSBC Bank and Bank of Valletta (BOV) account for almost 90 per cent of domestic retail banking in Malta. All banks' mortgage and consumer credit loans to household and individuals totaled €4.5 billion as at end 2015, with 86.1% of this figure relating to mortgages. The following breakdown of this figure is based on the published financial information of the Banks found on their corporate web sites: BOV €1.96 billion, HSBC EUR 1.77 billion, APS Bank EUR 461 million, Banif Bank EUR 199 million, Lombard Bank EUR 35 million, Mediterranean Bank EUR 10 million. It is worth noting that on average the mortgage market increased by 8.7% during 2015. A report by the European Commission in 2013 reveal that 52% of all loans generated by domestic banks in Malta, particularly HSBC Bank Malta and Bank of Valletta, are tied to housing mortgages.
Typical LTV ratio on residential mortgage loans:	The LTV ratio for loans backed by residential property was 74% as of 2014; the ratio for loans backed by commercial property was 69%. Source: IMF Country Report No. 16/20 January 2016 page 13 https://www.imf.org/external/pubs/ft/scr/2016/cr1620.pdf
Any distinction made between residential and non-residential loans:	The banks in Malta make a clear difference between mortgages for residents and commercial/business loans involving property development.
Most common mortgage product(s):	In Malta borrowers can choose both fixed and variable rate mortgages, with capital and interest payable over the term of the loan. A moratorium on capital repayments can normally be agreed for an initial number of years, during which interest only is repaid.
Typical maturity of a mortgage:	The maximum maturity granted in Malta is linked to the retirement age. 40-year mortgages are only issued on condition that mortgage is repaid before the borrower reaches the age of 65.
Most common way to fund mortgage lending:	Mortgage funding in Malta remain mainly deposit-based. Core domestic banks, with assets of about 2½ times the GDP, provide around 97 percent of bank lending to residents in Malta, and collect around 94% of resident deposits.

Level of costs associated with a house purchase:	In Malta, there is a 5% Duty on Documents (Stamp Duty) on purchases and one final withholding tax of 8% on the value of the property when sold. 5% Duty on Documents calculated on the purchase price of the immovable property. If the Buyer is a European Union Citizen declaring on deed that he shall reside in the property being purchased as his sole ordinary residence, then the preferential rate of 3.5% is applied on the first EUR 150,000 of the price. In respect of transfers of immovable property, made on or after the 5th November 2013 but before the 1st July 2015, no duty shall be chargeable on the first EUR 150,000 of the aggregate value of the consideration paid for the acquisition of such property, provided that this is the first immovable property acquired inter vivos by such person. More information is found on http://www.notariesofmalta.org/taxinfo.php With effect from 1st January, 2015 the current system consisting of both a 12% final withholding tax on the sales value or 35% tax on the profit or gain will be replaced by one final withholding tax of 8% on the value of the property sold. More information is found on: https://ird.gov.mt/faq/newproptax/newproptaxfaq.aspx
The level (if any) of government subsidies for house purchases:	The Maltese Housing Authority currently provides the following schemes: (a) Grant to Assist Owners in the Construction and/or Completion or Rehabilitation of their First Home; (b) Installation of lifts in Government owned residential blocks/entrances; (c) Rent Subsidy in Private Rented Residences; (d) Scheme for Persons with Disability; (e) A Scheme to encourage residents of apartments/terraced houses and maisonettes owned by the Housing Authority and the Government Property Department to become owner occupiers and continue using the property as their ordinary residence; (f) Subsidy on Adaptation Works in Residences occupied by Owners or Tenants; (g) Subsidy on Adaptation Works related to dangerous structures in Private Dwellings Held on Lease or Emphyteusis; and (h) Redemption of Ground Rent. The Maltese Housing Authority is embarking on a EUR 50 million project which involves a EUR 25 million financing from the European Investment Bank. The project concerns the financing of investments in social housing in the years 2016 - 2020 foreseen by the country's social housing programme that will be implemented by the national housing authority. EIB funding will concern retrofitting and new construction of social housing and associated infrastructure facilities. The housing investments will need to satisfy the EIB's eligibility criteria for urban renewal and sustainable cities and communities. The project will contribute to the alleviation of the current shortages in social housing supply in Malta. The project is expected to contribute to (i) the reduction of the shortage in social housing supply in Malta; (ii) improving the quality of existing social housing stock; (iii) potentially reducing energy consumption of the existing building stock; (iv) promoting social inclusion of low-income households; (v) the implementation of the housing strategy developed by Maltese municipalities. Housing construction typically generates significant employment both directly through construction and indirectly through consumables purchased by residents. The project therefore has potential to contribute significantly to sustainable growth and employment. Source: EIB web site: http://www.eib.org/projects/pipeline/2015/20150802.htm

Netherlands

By Nico de Vries and Dimitry Fleming, ING

Macroeconomic Overview

In 2015, the economy expanded at its highest rate since 2007. According to data from Statistics Netherlands (CBS), real GDP rose by 2.0% in 2015, compared to 1.4% in 2014. The increase was mainly driven by private consumption and gross fixed capital formation. Residential investment surged by over 25%. Public spending contributed positively to growth, while net exports were neutral. Inventories were a drag on growth as stocks of goods declined.

In terms of sector, the main growth drivers were construction and commercial services. Particularly wholesale trade, IT and temporary employment agencies provided a strong growth stimulus within services. Meanwhile, the energy sector was strongly impacted by the government's decision to lower the maximum allowed gas production. The decline in energy production shaved off almost half a percentage point from GDP in 2015.

The unemployment rate declined further, falling from 7.4% at the start of 2015 to 6.9% at the end of the year. In level terms, the number of unemployed declined by 55,000 people to just under 600,000. The employed labour force rose by 0.6% to 8.3 million people. With unemployment fallen, but still relatively high, wage growth accelerated modestly from 1% in 2014 to 1.4% in 2015. Moderate wage growth helped to keep inflation low. The inflation rate (as measured by the Consumer Price Index) was 0.2% in 2015, compared to 0.3% in 2014. Much of this decline was attributable to lower energy prices, but core inflation declined as well, from 1.4% to 1.2%.

The government budget balance improved and moved further away from the European threshold of -3%. Increased economic activity boosted the government's tax income, while falling interest rates helped to lower payments on debt. From -2.4% in 2014, the fiscal deficit fell to -1.8% in 2015. Excluding interest payments, the deficit was -0.5%. Falling gas revenues prevented the primary deficit from moving into positive territory. Government debt was 65.1% of GDP at the end of 2015.

Housing and Mortgage Markets

Housing market

In 2015 the number of housing completions rose by 9.9% to 48,000, after reaching a low point in 2014 at 44,000 buildings. These numbers are still low compared to the development of the need for housing. The number of households grew by 75,000 in 2015 and is expected to grow by 70,000 a year during the next years.

The number of housing transactions increased in 2015 by 16.1% to 178,000. The post-crisis effect seen in 2014 (increase of 39.4% of housing transactions) is wearing off. Together with transactions, also house prices rose, by 3.3% in 2015. Regionally, the Amsterdam area stands out with a house price increase of 10.9%.

Mortgage market

The main driver in the current mortgage market is low interest rates. Therefore, new long-term mortgages are more affordable, and converting mortgages to mortgages with lower interest is popular. In 2015, 68% of new contracts had a fixed term longer than 5 years, whereas in 2013 only 36% choose a contract with more than 5 years fixed.

The maximum LTV ratio has been lowered by another 1% to 103%. Since in 2013, the maximum LTV ratio has been lowered by 1% each year. This gradual reduction will continue until 2018, when the ratio will reach 100%.

Also since the start of 2013, new mortgages have to be repaid in full after 30 years and at least on an annuity basis in order to be eligible for tax deductibility. Deductibility stays intact for existing mortgages. However the maximum interest deductibility rate is going to decrease from its maximum rate of 52% in 2013 by 0.5 pps every year until reaching 42%.

The near future for the Dutch housing market looks positive in the following respects:

- A growing economy and positive consumer confidence
- Improvement in affordability as a result of historically low mortgage rates
- Reduced legislative uncertainty: there is confidence that the government is not going to introduce new structural measures in relation to the housing and mortgage markets.

	Netherlands 2014	Netherlands 2015	EU 28 2015
Real GDP growth (%) (1)	1.4	2.0	2.0
Unemployment Rate (LSF), annual average (%) (1)	7.4	6.9	9.4
HICP inflation (%) (1)	0.3	0.2	0.0
Outstanding Residential Loans (mn EUR) (2)	634,391	638,562	7,040,807
Outstanding Residential Loans per capita over 18 (EUR) (2)	47,390	47,401	17,047
Outstanding Residential Loans to disposable income ratio (%) (2)	195.9	192.6	n/a
Gross residential lending, annual growth (%) (2)	27.8	60.8	n/a
Typical mortgage rate, annual average (%) (2)	3.4	2.9	2.8*
Owner occupation rate (%) (1)	67.0	67.8	n/a**
Nominal house price growth (%) (2)	1.6	3.3	3.6

** Please note that this value is the simple average of the typical interest rate of the EU 28 countries.*

*** Please note that for the EU this data has a one year lag. For the latest available data please refer to statistical table 10.*

Sources:

(1) Eurostat
(2) European Mortgage Federation - Hypostat 2016, Statistical Tables.

Netherlands Fact Table

Entities which can issue mortgage loans:	Mortgages are mostly being issued by banks and insurance companies. But also the government, municipalities, companies in general and private persons may issue mortgages. However, for professional issuing of mortgages a company needs a licence from the Netherlands Authority for the Financial Markets. There are strict regulations for licence holders to protect the consumer.
The market share of the mortgage issuances:	In 2014: 63% banks; 25% insurance companies; 12% other (i.e.: state, municipalities, private persons).
Proportion of outstanding mortgage loans of the mortgage issuances:	62% banks; 29% special purpose vehicles; 7% insurance companies; 2% other.
Typical LTV ratio on residential mortgage loans:	Unknown; max LTV in 2014 is 104%, drops in steps of 1 pp to 100% in 2018.
Any distinction made between residential and non-residential loans:	A mortgage is registered at the Kadaster (Land Registry and Mapping Agency). There is registered whether a piece of land or object is mend for residential purposes.
Most common mortgage product(s):	Annuity and interest-only.
Typical maturity of a mortgage:	7 years
Most common way to fund mortgage lending:	n/a
Level of costs associated with a house purchase:	2% taxes; 4% other transaction cost (i.e. notary; real estate agent; taxation).
The level (if any) of government subsidies for house purchases:	There is a guarantee fund, the Nationale Hypotheek Garantie (NHG). For mortgages lower than 265,000 euro's and certain conditions, the NHG guarantees the payback of the remaining mortgage debt in case of foreclosure (again at certain conditions).

Poland

By Agnieszka Nierodka, Polish Mortgage Credit Foundation

Macroeconomic Overview

GDP

According to Eurostat estimates, the increase of real GDP in Poland in 2015 was 3.6% (in comparison to 3.3% in 2014), with domestic demand being the main driver of the GDP growth.

Total gross value added in the national economy in 2015 increased by 3.4% y-o-y versus 3.3% in 2014. Industrial gross value added was 5.4% higher than in 2014 compared with the increase of 4.0% in 2014. Gross value added in the construction sector was 4.4 % higher than in the previous year, compared with an increase of 5.0% in 2014.

The unemployment rate in Poland (BAEL) amounted in 2015 to 7.5% (as compared to 9% in 2014).

Inflation

Deflation has been persisting in Poland since July 2014. In 2015, the annual consumer price index amounted to -0.9% y-o-y. In December 2015, the CPI amounted -0.5% and core inflation to 0.2% (y-o-y).

Public finance

In 2014 Poland's budget revenues amounted to PLN 289,1bn (increase of nearly 2% y-o-y in nominal terms), and expenditures amounted to PLN 331,7bn (increase of 6.1%). General government deficit in 2015 stood at -2.5% GDP (- 3.3% in 2014) and general government debt amounted to 51.5% GDP (from 50.1% in 2014).

Housing and Mortgage Markets

Housing market

The Polish real estate market continued its growth in 2015 – both the number of new home construction permits and dwellings under construction were on the rise.

The number of building permits issued in 2015 amounted to around 72,000 (nearly 10% increase y-o-y). Around 148,400 dwellings were completed in 2014 (increase of 3.3% in comparison to 2014) and about 168,000 were under construction (nearly 14% increase).

Transaction prices on the primary and secondary markets are generally stable. In all large cities prices on the primary market exceeded those on the secondary market.

The availability of credit and housing in large cities increased slightly, which was the result of stable property prices, stable interest rates on new PLN housing loans and growth in nominal income combined with CPI deflation. With an average monthly wage in the corporate sector it is possible to purchase 0.84 square metres in the major cities thus increasing by 0.35 square metres with respect to the record low noted in Q3 2007.

Mortgage markets

At the end of 2015 there were around 1,995,000 residential mortgage loan contracts outstanding (increase of around 5% y-o-y) and around 181,000 new loans were granted in 2015. This means that, in terms of new lending, in 2015 bank activity was the best it had been since 2012. It seems that relatively low interest rates contributed to the revival of the Polish mortgage market in two ways. Firstly, it was the effect of cheap PLN mortgage loans (together with lower transaction prices). Secondly, considering the relatively low rates of return on bank deposits, some customers decided to seek higher profits by making alternative, more profitable investments in properties.

Legal changes important for mortgage business:

Since 1 January 2015 a new LTV limit of 90% has been introduced for residential mortgage loans. The requirement came into force by way of an amendment of "Recommendation S on good practices for mortgage banking", issued by Polish Financial Supervision Authority (KNF). Since the 1st January 2016 the limit will amount to 85% and will be brought to 80% in 2017.

Changes were also introduced to the state-subsidised scheme, "Flat for Youth", which aims at helping young people (below 35 years old) to purchase their first dwelling. The amendments extended the scope of the scheme to the secondary market, lowered the price of the properties eligible for the program, and increased the subsidy amount for multi-children families (subsidy amounts now to 15% of the construction value for families with 1 child, 20% – with 2 children, and 30% – with 3 and more children).

It is also worth mentioning that in May 2015, the Minister of Finance issued a Regulation changing the personal income tax law – if the bank redeems a part of the residential credit – this amount will be exempted from tax (previously 19% tax was payable on the redeemed amount).

The quality of the credit portfolio remained stable in 2015. According to the National Bank of Poland's estimates, the share of NPLs in the portfolio amounted to 2.7%.

Mortgage Funding

Mortgage funding in Poland remains mainly deposit-based. According to the Polish Mortgage Credit Foundation's data, the total value of new mortgage covered bonds (CBs) issued in 2015 amounted to over PLN 1.77 billion, while covered bonds outstanding amounted to nearly PLN 5.4 billion.

It must be noted however, that the specialised mortgage business seems to be gaining in importance for Polish banks. In 2015, a new mortgage bank, PKO Bank Hipoteczny, was established (a daughter company of PKO Bank Polski – the biggest universal bank in Poland); moreover, at least 2 other universal banks are considering the possibility of establishing mortgage banks.

In order to stimulate the wider use of CBs as a funding tool and to lower the costs of covered bonds issuance, a significant amendment of the "Act on covered bonds and mortgage banks" was carried out in 2015. The new regulation will provide i.a.:

- statutory overcollateralisation of at least 10%, calculated on a nominal basis regarding the capital amount of outstanding CBs;
- an appropriate liquidity buffer, ensuring full and timely payment of the interest on the CBs due in the next 6 months;
- a higher funding limit for residential mortgage loans increased to 80% (from 60%) of the property's mortgage lending value. The funding limit for mortgage loans secured on commercial properties remains unchanged (60%);
- seamless servicing of covered bond holders in case of the issuer's insolvency. During the first year of insolvency, the liquidity buffer will be used directly to ensure timely payment of interest (while the maturities of CB principal are postponed automatically by statutory law by 12 months). Additional amendments to the CB include the introduction of an asset coverage test, which verifies whether the separate insolvency estate is sufficient to fully satisfy the claims of the bondholders, as well as a liquidity test, which verifies whether the separate insolvency estate is sufficient to fully satisfy the claims of the covered bond holders on the extended redemption dates. These tests will be conducted also during regular activity of the mortgage bank;

- the new regulation eliminates withholding tax on interest payments from CBs for foreign investors, which should encourage them to invest in Polish covered bonds.

The amended Act came into force on 1 January 2016, together with key regulations for specialised mortgage banks: Recommendation F on the standards for determining the mortgage-lending value and Recommendation K on the rules on keeping and managing cover registers).

	Poland 2014	Poland 2015	EU 28 2015
Real GDP growth (%) (1)	3.3	3.6	2.0
Unemployment Rate (LSF), annual average (%) (1)	9	7.5	9.4
HICP inflation (%) (1)	0.1	-0.7	0.0
Outstanding Residential Loans (mn EUR) (2)	82,555	88,121	7,040,807
Outstanding Residential Loans per capita over 18 (EUR) (2)	2,656	2,832	17,047
Outstanding Residential Loans to disposable income ratio (%) (2)	33.3	34.6	n/a
Gross residential lending, annual growth (%) (2)	3.7	23.1	n/a
Typical mortgage rate, annual average (%) (2)	4.1	3.6	2.8*
Owner occupation rate (%) (1)	83.5	n/a	n/a**
Nominal house price growth (%) (2)	1.8	1.1	3.6

** Please note that this value is the simple average of the typical interest rate of the EU 28 countries.*

*** Please note that for the EU this data has a one year lag. For the latest available data please refer to statistical table 10.*

Sources:

(1) Eurostat
(2) European Mortgage Federation - Hypostat 2016, Statistical Tables.

Poland Fact Table

Entities which can issue mortgage loans:	Banks and credit unions
The market share of the mortgage issuances:	No detailed data available, rough estimates: less than 1% of new lending is granted by credit unions, over 99% – by banks
Proportion of outstanding mortgage loans of the mortgage issuances:	around 99.5% – banks, 0,5% – credit unions (Dec. 2014)
Typical LTV ratio on residential mortgage loans:	49.12% of new loans granted in 2015 had LTVs over 80% 36.02% – LTVs between 50-80% 7.22% – LTVs between 30-50% 7.64% – LTVs below 30%
Any distinction made between residential and non-residential loans:	Borrower's statement – the client must declare (in loan's application) for what purpose the credit will be used; bank is allowed to check whether the loan was used according to that declaration.
Most common mortgage product(s):	Variable rate mortgage credit for residential purpose
Typical maturity of a mortgage:	Between 25 and 35 yrs (according to data for 4Q 2015, around 64% of new lending belonged to that range)
Most common way to fund mortgage lending:	Banking deposits + interbank lending
Level of costs associated with a house purchase:	• establishment of a mortgage – 0.1% of the secured amount • notary fee (depends on the value of property) – usually: 1.010 PLN + 0.4% over the value of 60.000 PLN (+ VAT 23%) • additional notary documents – 6 PLN per page • entry do mortgage register – 200 PLN; if there's no mortgage register for the property - establishment of mortgage register costs additionally 60 PLN • tax on civil law transactions (paid only if the property is purchased on secondary market) – 2% of the value of property • property valuation (sometimes covered by the bank) – usually 300-600 PLN • commission for the broker (if needed) – around 3% + VAT
The level (if any) of government subsidies for house purchases:	The most important government subsidy is "Flat for youth". The basic subsidy amounts to 10% of the construction value of the apartment up to 75 square meters (100 sq. m for houses). Higher aid is available for families with children: subsidy of 15% – for families with 1 child, 20% – with 2 children, and 30% – with 3 children (in the last case the square metrage of the eligible property will be: 85 sq. m for flats and 110 sq. m for houses). The beneficiaries of the programme are families and single persons up to 35 years of age, who do not own a housing yet. The subsidy makes a part of the borrower's own equity required by a bank granting a mortgage. In 2015, the total amount of this subsidy was around 520.5 mio PLN (21,888 loans).

Portugal

By Alexandra Ponciano, Caixa Ecónómica Montepio Geral

Macroeconomic Overview

In 2015, GDP registered a higher increase compared to the previous year of 1.5% in volume, representing more than a 0.6 pps increase than in 2014. The persistence of a still moderate growth was in line with the one observed in the euro area (1.7% in 2015), which is the result of many factors, including the maintenance of low or even negative interest rates, long term unemployment and the increase of geopolitical tensions in and around Europe.

Domestic demand was determinant for the growth of the Portuguese economy, which recorded a y-o-y increase of 2.4%, as a result of both private consumption and public consumption, which registered a positive rise after a continuous decrease since Portugal's Economic and Financial Assistance Programme in 2011. Nevertheless, a lower volume growth in investment was observed (from 5.5% in 2014 to 3.6% in 2015), mainly in the second-half of the year, reflecting investors' uncertainties. Moreover also the trade balance was eroded in 2015 and 2014 with a decline of 1.0 and 1.3 pp respectively. This deceleration can be explained by the higher growth of exports of goods and services.

The effort to continue the process of fiscal consolidation and of structural reforms was maintained in 2015, in order to secure the confidence of investors and to fulfil the responsibilities towards the European entities. The general government deficit stood at 4.4% of GDP, below that registered in the previous year (7.2% of GDP), but above the 3% required, due to the impact, in both years, of non-recurring operations related to the intervention with regard to banking institutions.

The unemployment rate continued to follow a downward path, from 13.9% in 2014 to 12.4% in 2015, benefiting from positive developments in the Portuguese economy, with the unemployed population decreasing by 11.0%compared to 2014.

Although it remained at low levels, the Portuguese Harmonised Index of Consumer Prices (HICP) increased to 0.5% in 2015 compared to -0.2% in 2014. The increase in core inflation and unprocessed food prices were the principal contributors to this evolution, despite the continuous decrease of the price of energy products.

Housing and Mortgage Markets

Housing market

2015 confirmed the recovery trend that was already observed in the housing market in the previous year. The number of building permits issued reached 8,219 new units, representing an increase of 21.2% y-o-y and total housing completions declined less sharply.

The Portuguese real estate industry seems to be more optimistic, in line with the European market, benefiting from a better macroeconomic framework, higher consumer confidence indicator reflecting the positive contribution of the perspectives regarding the evolution of households' financial situation, the better working conditions and also the increased appetite of mainly international investors to diversify their real estate portfolios.

In fact, real estate property continues to be a very attractive investment, with residential property also now attracting the attention of investors. Therefore, the upward movement in property prices in 2015 for all types of dwellings registered an annual growth of 3.1% and the number of purchase and sale contracts of real estate increased by 27.4% compared to 2014.

The rising of real estate prices reveals the tendency of investors to increasingly concentrate on urban areas rather than the countryside. This is also revealed by the growing appeal of Lisbon's real estate market which is considered one of the 10 most attractive European cities for real estate investment[1]. In Portugal, the rising prices of real estate properties are also no longer concentrated in the metropolitan areas (Lisbon and Oporto), but also indicate the importance for investors of regions such as Algarve. Some future concerns might be related to the impact that may result from the current political and economic risks. The confidence in the housing market is also reflected in the domestic market, with national investors also looking to the real estate market as a low-risk alternative investment with a reasonable return, compared with the capital markets or other financial products with low interest rates.

Mortgage markets

In 2015, the outstanding residential loans continued for the fifth consecutive year their downward trend, with the volume of residential loans reducing by 3% y-o-y, reaching EUR 98,516 million. This reflects the continued commitment to reimbursement of outstanding debt by households in 2015, maintaining the trend observed since 2011, and reducing the level of household indebtedness to GDP. The magnitude of the reduction in household indebtedness reflects the unfavourable macroeconomic environment that subsisted between 2011 and 2015.

However, when considering the gross flows of new residential lending, the 2015 increase was significant (73.5%), with the amount of new loans for house purchase approaching the level observed in 2011, the year of Portugal's international assistance. This evolution is largely the result of the evolution of the economy, higher consumer confidence levels, improved bank financing conditions, with the supply credit criteria to individuals becoming slightly less restrictive and, of particular relevance, the very low level of EURIBOR rates (most representative external index). In 2015, the EURIBOR rate reached negative levels for the first time and, therefore, interest rates on new residential loans in 2015 fell by 0.8 pps compared to 2014 (from 3.2% to 2.4%, at the end of the period). In the short term, the context of low interest rates might be favourable for the Portuguese economy, taking into account the high debt levels of the population. However, the maintenance of low interest rates for an extended period penalises the generation of income for the financial system, jeopardising its capital strengthening capacity.

In terms of risk, the credit segment to households for housing maintained its low level, with the credit-at-risk ratio (% of gross credit) remaining stable at about 6% since mid-2011.

Mortgage Funding

Retail funding continues to be the main source of funding of mortgage credit, which combined with the credit reduction has resulted in decreasing credit-to-deposits ratio in 2015 to 102% (107% in 2014). The share of customer deposits in financing the banking sector increased again in 2015 while the financing from the Eurosystem decreased. The expanded asset purchase programme of the ECB, including the third covered bond purchase programme (CBPP3) and asset-backed securities purchase programme (ABSPP) will boost the diversification of funding for banks and result in greater liquidity.

[1] Study *Emerging Trends in Real Estate 2016*, developed by PwC in partnership with the Urban Land Institute

	Portugal 2014	Portugal 2015	EU 28 2015
Real GDP growth (%) (1)	0.9	1.5	2.0
Unemployment Rate (LSF), annual average (%) (1)	14.1	12.6	9.4
HICP inflation (%) (1)	-0.2	0.5	0.0
Outstanding Residential Loans (mn EUR) (2)	102,469	98,516	7,040,807
Outstanding Residential Loans per capita over 18 (EUR) (2)	11,951	11,523	17,047
Outstanding Residential Loans to disposable income ratio (%) (2)	84.7	80.1	n/a
Gross residential lending, annual growth (%) (2)	12.9	73.5	n/a
Typical mortgage rate, annual average (%) (2)	3.2	2.4	2.8*
Owner occupation rate (%) (1)	74.9	n/a	n/a**
Nominal house price growth (%) (2)	3.6	2.3	3.6

** Please note that this value is the simple average of the typical interest rate of the EU 28 countries.*

*** Please note that for the EU this data has a one year lag. For the latest available data please refer to statistical table 10.*

Sources:

(1) Eurostat

(2) European Mortgage Federation - Hypostat 2016, Statistical Tables.

Portugal Fact Table

Entities which can issue mortgage loans:	Credit institutions are authorised to provide mortgage loans in accordance with Decree-Law n. º 349/98 of 11 November and, within some limits, the commercial and investment banks according with the articles 3 and 4 of Decree-Law n. º 34/86 of 3 March.
The market share of the mortgage issuances:	In 2014, the six largest institutions have settled 78.9 per cent of new mortgage loans, representing 76.8 per cent of the outstanding amount, which compares with 86.1 and 83.5 per cent, respectively, in 2013. This has contributed to reduce the concentration of mortgage loans portfolio at the end of 2014. At December 31 of 2014, ten credit institutions had 95 per cent of the number of mortgage loans portfolio, which accounts for about 94 per cent of total outstanding amount. The six largest institutions had 86.7 per cent of mortgage loans and 83.4 per cent of the outstanding amount.
Proportion of outstanding mortgage loans of the mortgage issuances:	The six largest institutions in Portugal are: Millenium BCP, CGD, BPI, Santander Totta, Novo Banco and Montepio. And hold: CGD (33.1%); Santander Totta (14.4%); Novo Banco (10.0%); Montepio (7.6%).
Typical LTV ratio on residential mortgage loans:	There is no available information about this issue.
Any distinction made between residential and non-residential loans:	Usually it is based on the risk associated with the loan: loans to residential purposes represents a lower risk than non-residential, which is reflected in the level of associated spreads.
Most common mortgage product(s):	The most common mortgages are residential mortgages.
Typical maturity of a mortgage:	Mortgage loans granted in 2014 have an average maturity of 30.6 years, about nine months less than the average of total portfolio.
Most common way to fund mortgage lending:	The most common is retail funding. From 2006 until 2011, the covered bonds gained importance as a source of financing for Portuguese banks. However, more recently, the amount issued has slowed.
Level of costs associated with a house purchase:	There are many costs associated with mortgage loans. The banks usually charge commissions related to study and to open the process. Often these commissions include the costs of evaluation, because the bank always requires a report with the evaluation of the property, carried out by a technician. There are also other bureaucratic charges related with the necessary procedure with the registration, at the Land Registry, with Municipality Council and Notarial Office. Also there are specific taxes related with mortgage loans, as the payment of municipal tax on real estate (IMI) and municipal tax on onerous transfer of property (IMT).
The level (if any) of government subsidies for house purchases:	Although access to mortgage loans backed by the government was stopped from September 2002, recently, the financial conditions were eased for loan borrowers who are unemployed for more than three months.

Romania

By Ştefan Dina, Romanian Banking Association

Macroeconomic Overview

In 2015, Romania's GDP grew by 3.8%. GDP per capita, expressed as the Standard Purchasing Parity (SPP), stood at 57% of the EU average, which is an increase compared to the 50% registered in 2010. The forecasts for 2016 indicate a healthy economic growth of 3.5-4%.

In 2015, the annual inflation rate continued its downward trend. According to Eurostat, inflation measured by the HICP decreased by 0.4% in 2015.

Unemployment remained unchanged at around 6.8% in 2015.

Romania is considering entering the euro area, possibly after 2019, and adhering to the European Banking Union. Although tangible progress has been made in terms of nominal convergence, the financial crisis and its aftermath have shown that additional reforms must be made before joining the euro area.

Romania's fiscal standing is sustainable, considering that the budget deficit was under 3% of GDP, more precisely 1.5% of GDP in 2015 (compared to 1.7% of GDP in 2014), and that the country's public debt was under 60% of GDP. With 38.4% of GDP, the level of public debt is one of the lowest in the EU in 2015, and is estimated to stabilise at below 40% in the medium term. The current account deficit was 1.1% of GDP in 2015. According to recent forecasts for 2016, the current account deficit is expected to stay between 1% and 2% of GDP.

European funding is still not used to its maximum potential, taking into account that the current absorption rate stood at 69%. The banking community of Romania is interested in actively contributing to improving the general framework of raising European funds alongside all the parties involved, the purpose being to increase the absorption rate of European funds in Romania.

Housing and Mortgage Markets

Romania has consistently recorded one of the highest occupancy rates in the European Union (98%), with a dwelling stock of more than 8.8 million, increasing by 0.5% (41,500 dwellings) in 2015.

The increase was mainly a result of 47,000 new homes finished last year. The distribution of these new residential projects was, however, uneven nationwide, with more than half of new homes being built in the capital city of Bucharest and 6 other counties, while, at the other end of the spectrum, 17 counties accounted for less than 11.8% of new residences.

The upward trend appears sustainable, as the number of residential building permits issued in 2015 increased by 3.8% compared to the previous year.

According to research from major real estate companies, the residential segment in 2015 in Bucharest was characterised by an increase in sales volumes and new stock entering the market. The overall residential stock in the capital city reached over 30,000 units at the end of the year, indicating, on the one hand, developers' confidence in the market and, on the other, buyers' trust in future economic growth. Low-income-targeted developments cost EUR 750 per built square metre, while middle products found buyers in the bracket of EUR 1,000-1,350 per built square metre.

However, comparing house prices in 2015 to prices before the crisis, Romania recorded some of the lowest values in the EU, with a slow recovery over the last years. As the governmental programme for home acquisition (the First Home Programme) included caps on maximum loan value, residences with values of EUR 60.000 and less were favoured during the past few years.

In 2015, consumer lending in Romania grew by 6.7% in 2015 (compared to the previous year's 1.9% decrease), mainly supported by the significant growth in mortgage lending, which recorded a 17.6% increase. During the last year, mortgage lending acquired a 48.1% share of the consumer loans granted (compared to 43.7% in 2014 and 19.8% in 2007, respectively), with support from the "First Home" Programme (mortgage lending guaranteed by the Romanian state).

Last year alone, approximately 35,000 guarantees were granted with the "First Home" Programme, facilitating consumers' access to acquiring or building a home, through affordable pricing set through legislation and a low individual contribution of only 5%. Since its launch in 2009, the programme has supported more than 180,000 mortgage loans for the population.

In 2015, mortgage loans in Romania were mainly granted in the local currency (RON), as the Romanian Interbank Offered Rate (ROBOR) indexes reached historic lows of 1.02%, with average decreases of approximately 0.65 pps in the last two years. Overall the ROBOR dropped by more than 5 pps since the beginning of 2010 and more than 14 pps since the end of 2008, respectively. This also led to the conversion of loans previously granted in foreign currency, based on bilateral negotiations between lenders and consumers, especially after the Swiss National Bank decided to let the CHF float freely with respect to the Euro in 2015.

Last year, a number of legislative initiatives were subjected to public debate, regarding mortgage loans conversion to local currency (at current or historic rate) and/or various deductions for borrowers. As a result, in 2016, the "Datio in Solutum" law was adopted by the Romanian Parliament, allowing borrowers to fully settle their liability by transferring to the banks the ownership right over the property used as collateral for their loans, with retroactive applicability. The "First Home" governmental programme was excluded from the jurisdiction of the law, a ceiling in amount of EUR 250,000 equivalent on the size of the loan at time of origination was set, and the law only applies to mortgages that qualify as dwellings and were contracted by "consumers". The law is in process of being challenged at the Constitutional Court, but it is nonetheless expected to have a negative impact on mortgage lending in Romania.

In addition, in 2015 a private individual bankruptcy law was approved and is planned to be implemented by December 2016.

At the end of 2015, the non-performing ratio of mortgage-based loans stood at 6.9%, greatly due to home-equity consumer loans (58% of non-performers at June 2015). In June 2015, home-equity loans recorded a non-performing ratio of 12.5%, compared to the 4.3% non-performing ratio of mortgage loans. The portfolio of loans granted through the "First Home" Programme continued to feature a very low non-performing loan ratio (approximately 0.03%).

As interest rates and the loans-to-deposits ratio in Romania continues to decrease (85.8% at the end of 2015 compared to the previous value of 90.5%), there is still potential for growth in 2016, depending on the different challenges the banking system will face in the year ahead.

Mortgage Funding

In 2015, as in previous years, deposit-financed lending remained the primary source of mortgage funding.

According to the National Bank of Romania, external financing from parent banks continued its downward trend, recording a 17.4% drop over 2015, mainly because short-term credit lines that reached maturity were no longer extended.

It should be noted that on the 3rd of March 2016 the law on covered bonds came into force. The law aligns the current Romanian legislation to European standards and practices. Issuers and investors are now in the preparation phase of the covered bonds issuing process, but the current market context, in view of the recently adopted "Datio in Solutum" law, should be taken into consideration.

	Romania 2014	Romania 2015	EU 28 2015
Real GDP growth (%) (1)	3.0	3.8	2.0
Unemployment Rate (LSF), annual average (%) (1)	6.8	6.8	9.4
HICP inflation (%) (1)	1.4	-0.4	0.0
Outstanding Residential Loans (mn EUR) (2)	10,095	11,501	7,040,807
Outstanding Residential Loans per capita over 18 (EUR) (2)	623	713	17,047
Outstanding Residential Loans to disposable income ratio (%) (2)	12.6	13.5	n/a
Gross residential lending, annual growth (%) (2)	1.4	63.2	n/a
Typical mortgage rate, annual average (%) (2)	5.1	4.0	2.8*
Owner occupation rate (%) (1)	96.1	n/a	n/a**
Nominal house price growth (%) (2)	0.2	3.6	3.6

** Please note that this value is the simple average of the typical interest rate of the EU 28 countries.*

*** Please note that for the EU this data has a one year lag. For the latest available data please refer to statistical table 10.*

Sources:

(1) Eurostat

(2) European Mortgage Federation - Hypostat 2016, Statistical Tables.

Romania Fact Table

Entities which can issue mortgage loans:	In Romania, generally credit institutions can issue mortgage loans, with marginal input from non-bank financial institutions. Currently, in Romania, there are 37 credit institutions of which are 8 foreign banks' branches. In addition, according to the National Bank of Romania's General Registry, a total of 137 non-bank financial institutions carry out multiple lending activities, including mortgage loans.
The market share of the mortgage issuances:	Banks are the main mortgage lenders in Romania, with marginal input from non-bank financial institutions.
Proportion of outstanding mortgage loans of the mortgage issuances:	Although official data is not available, the top 10 banks grant the majority of mortgage loans in Romania.
Typical LTV ratio on residential mortgage loans:	In 2015/Q4, the average LTV ratio for new loans given in the past three months was around 84%, and the average LTV ratio for the total amount of loans for real estate investments was approximately 88%, without significant changes in comparison to the previous quarter (2015/Q3).
Any distinction made between residential and non-residential loans:	Romanian credit institutions grant: • mortgage loans (including loans within the "First House" Programme), which are dedicated to residential purposes, more specifically to the acquisition or construction of houses for rental purposes. • consumer loans meant to address consumers' financing needs, with some of the most common being the loans for personal needs.
Most common mortgage product(s):	Currently, in Romania, mortgage lending is driven by loans granted within the "First Home" Programme, launched in 2009 (reduced margins, 5% advance payment, 50% guarantee offered by the National Guarantee Fund for Small and Medium Enterprises (in Ro: FNGCIMM).
Typical maturity of a mortgage:	The maximum lending period for the loans granted within the "First Home" Programme is 30 years. As for standard mortgage loans, other than the ones mentioned above (associated to the First House Programme), the maximum lending period can reach 35 years.
Most common way to fund mortgage lending:	In Romania, the loan / deposit ratio stands at approximately 85%. Thus, credit institutions mainly use funds attracted from clients in order to grant loans. Credit institutions have gradually reduced their dependence on parent banks by increasing their deposits volumes. Also, recently issued regulations regarding covered bond issues determine the frame for accessing long-term financing at lower costs.

Level of costs associated with a house purchase:	A series of costs are applicable to mortgage loans. The most important ones include: • an analysis fee, • valuation fees of the property to be mortgaged, either by internal evaluators of credit institutions or external evaluators. The average cost range for evaluating a residential property is about EUR 80-150 plus VAT; • costs related to obtaining the land book extract necessary for signing the mortgage real estate: RON 40 (approximately EUR 9). • notary/legal costs related to signing the mortgage contract, varying based on a number of factors: transaction value, property age, etc. E.g: The land book registration fee amounts to 0.15% of the sale price, the state tax owed by the seller amounts to 2% if the property is owned for less than 3 years and the value exceeds RON 200,000, etc. • also, for mortgage loans secured, credit institutions require home insurance, which depends on the value of the home, the maturity, the types of insured risks, etc.
The level (if any) of government subsidies for house purchases:	There are no government subsidies for house purchasing, but there are specific programmes designed to assist customers who wish either to purchase a house or to build one. The "First Home" programme supports young people who want to purchase their first home via Romanian Government guarantees. Recently, the programme was extended to cover home acquisition or building by Romanians living abroad, thus helping them to purchase or build a house in Romania. In 2015, the legislation regarding the "First Home" programme have been further improved to include the opportunity to acquire a second (larger) home, under certain conditions (selling their initial house, a higher new house value or surface compared to the initial house etc.). Also, certain credit institutions have concluded agreements with the National Housing Agency to offer loans for the acquisition or construction of homes. NHA was the first institution to grant mortgage loans, and The Rental Housing Units for Young People Constructions Programme addresses the needs of young people aged 18 to 35, who cannot afford to buy or rent a housing unit on the free market. The Rental Housing Units for Young People are built through the National Housing Agency. On their completion, these housing units are handed over to the local councils which assign them to eligible young applicants. The lands where the housing units are built as well as the necessary utilities are provided by the local councils. The rental housing units for young people may be bought by the leaseholders (tenants) at the end of at least one-year continuous lease.

Slovakia

By Paolo Colonna, European Mortgage Federation – European Covered Bond Council

Macroeconomic Overview

Real GDP growth increased to 3.6% in 2015, driven by both investment and private consumption. Overall investment in particular shot up by 12.7 % in 2015, thanks to the application of EU funds.

A solid export performance consolidated Slovakia's market share, but buoyant domestic demand boosted imports even further, thus slimming down the trade surplus. Due to this, Slovakia ran a small current account deficit. External debt, which had increased in recent years partly due to non-resident holdings of government bonds, steadied in 2015.

The labour market is recovering, but subsets of the labour force face particular challenges, thereby depressing potential growth. About two thirds of the jobless are long-term unemployed, largely clustered in the south. Youth unemployment remains stubbornly high at 25%. Slovakia lags behind its European peers in terms of women's labour force participation and the gender pay gap.

Headline inflation was marginally negative in 2015, reflecting weak food prices and declining administered energy prices, while core inflation remained around 0.5%. Prices are expected to rise as the output gap closes. Risks from deflation remain low thanks to solid wage increases and reduced leverage.

After a substantial narrowing of fiscal imbalances through 2013 to exit the EU's Excessive Deficit Procedure, Slovakia's public deficit has remained between 2.5 and 3% of GDP.

Housing and Mortgage Markets

Outstanding residential loans rose for the second year in a row by around 14% y-o-y, on the back of an increase of gross lending of circa 10%. This increased mortgage outstanding may have been partly driven by the continuing fall in interest rates, which, following trends observed across the euro area, have fallen substantially, and were, in 2015, on average 2.7%, from 3.4% the year before. However, despite a fall in interest rates, gross lending growth halved with respect to the same period in 2014. This is probably due to the macroprudential recommendations by the National Bank of Slovakia (NBS), which managed to slow down origination.

House prices gained momentum by exhibiting a healthy 5.4% growth y-o-y, adding to the positive streak of the previous year. The good results of the economy at large are pushing house prices – a pattern familiar in Eastern Europe. Over 90% of the population live in an owned dwelling, making Slovakia one of the European countries with the highest rate of home ownership. This makes the Slovak housing market particularly reliant on new housing, as secondary market turnover is very low. It thus depends heavily on construction.

The Bratislava region, which has the country's highest house prices, came out from a 6-year slump with a healthy 2.7% price rise per square metre y-o-y.

Mortgage Funding

Deposits are for the banks a main source and for the Bausparkassen the only source of funding for their mortgage market activities. Banks also fund their lending activities by issuing covered bonds. Outstanding covered bonds increased by 6.6% in 2015, more than pairing the losses in 2014. Covered bond issuance increased by more than three quarters y-o-y. Most of the market is comprised of private placement.

	Slovakia 2014	Slovakia 2015	EU 28 2015
Real GDP growth (%) (1)	2.5	3.6	2.0
Unemployment Rate (LSF), annual average (%) (1)	13.2	11.5	9.4
HICP inflation (%) (1)	-0.1	-0.3	0.0
Outstanding Residential Loans (mn EUR) (2)	17,364	19,714	7,040,807
Outstanding Residential Loans per capita over 18 (EUR) (2)	3,937	4,460	17,047
Outstanding Residential Loans to disposable income ratio (%) (2)	37.3	41.1	n/a
Gross residential lending, annual growth (%) (2)	19.8	8.9	n/a
Typical mortgage rate, annual average (%) (2)	3.4	2.7	2.8*
Owner occupation rate (%) (1)	90.3	n/a	n/a**
Nominal house price growth (%) (2)	1.6	5.4	3.6

** Please note that this value is the simple average of the typical interest rate of the EU 28 countries.*

*** Please note that for the EU this data has a one year lag. For the latest available data please refer to statistical table 10.*

Sources:

(1) Eurostat

(2) European Mortgage Federation - Hypostat 2016, Statistical Tables.

Slovakia Fact Table

Entities which can issue mortgage loans:	Housing finance is raised from (mortgage) banks, Bausparkassen and the State funds.
The market share of the mortgage issuances:	Not available
Proportion of outstanding mortgage loans of the mortgage issuances:	Banks had a market share of 47%, Bausparkassen of 42% and the state funds of 11%.
Typical LTV ratio on residential mortgage loans:	The typical LTV ratio is 70%, but a maximal LTV ratio of 85% is possible.
Any distinction made between residential and non-residential loans:	Not available
Most common mortgage product(s):	Most mortgage loans taken out are loans with a variable rate or with short-term fixed rates.
Typical maturity of a mortgage:	The mortgage loans can be granted for a time frame between 4 and 30 years.
Most common way to fund mortgage lending:	Deposits are for the banks one main source and for the Bausparkassen the only source of funding for their mortgage market activities. Banks also fund the lending activities through issuance of Covered Bonds. Outstanding Covered Bonds equalled to 5% of all outstanding residential lending.
Level of costs associated with a house purchase:	Roundtrip transaction costs (including notary and registration fees, real estate Agent's fee) is between 3% and 6.6%
The level (if any) of government subsidies for house purchases:	Subsidies cover up to 30% of construction costs, excluding land price, and soft loans have an annual interest rate of 1% with a repayment period of up to 30 years and with maximum 80% LTV.

Slovenia

By Andreja Cirman, University of Ljubljiana and Daniele Westig, European Mortgage Federation – European Covered Bond Council

Macroeconomic Overview

In 2015, the rate of economic growth remained relatively high at 2.9%, surpassing the EU average by 0.9 pps and thus definitely emerging from the recession which gripped the country from 2008 to 2013 requesting a cumulative 9% of GDP. Though back on track, crisis legacies continue to weigh on the economy, such as highly leveraged corporations, accumulated nonperforming loans, sharply reduced investment figures, which together mean that GDP and employment remain below pre-crisis levels.

With respect to 2014, the drivers of this sustained growth broadened from net export boosts to increasing private consumption, rising consumer confidence and persistently low energy prices. A further contribution was the increased investment in infrastructure projects supported by EU Funds and also private investments started to show some recovery. With respect to the rest of the world, Slovenia has a buoyant 7.4% current account surplus with respect to GDP, which can be explained by the deeper integration into the foreign supply chain together with still lacklustre domestic demand. Also in the future export growth rates are expected to be higher than import growth rates.

The labour market and unemployment are marginally improving and for the first time since the onset of the crisis more people left than entered registered unemployment. Low-skilled and young people in particular are finding employment, however long-term unemployment only fell slightly, highlighting the risk of a more structural challenge. Though most new contracts are still fixed-term there is an accelerating shift towards permanent contracts, which highlights a growing confidence of employers in the economic recovery.

2015 also saw the first ever negative headline inflation at -0.8% due to the high weight of energy prices in the country. Sluggish domestic demand also continued. On a positive note, however, a slow convergence to the currently low core inflation rate will likely be registered once the effects of subdued energy prices dissipate.

A prolonged recession coupled with bank recapitalisation has significantly increased public debt which stood at 84% of GDP at the end of 2015. Though still below the EU average, public debt has quadrupled since 2007. The deficit continues to decline, although the structural part at 2.8% remains above the euro area average of 1.4%. The reasons for this decline are a more favourable economic situation and a raise in government revenues thanks to, among others, the increase of tax rates on financial services and insurance transactions and the introduction of contributions for student health and pension insurance.

Housing and Mortgage Markets

In 2015, house prices rose for the first time since 2011. Flat prices in Ljubljana rose by 5.3% in 2013, while at national level they increased by 1.3%. The increase in the capital was substantial, however prices are still 25% lower than in 2007. 2015 saw a continuation of the positive trend which began the year before with an increase of 25% in real estate transactions. This was reflected in a nearly 40% increase in gross residential lending and a 3% increase in outstanding loans for residential purposes. This discrepancy between the flow and the stock figures can be explained by the high level of change in mortgage contracts relating to switches between underlying currencies and shifts from variable to more fixed interest rate contracts, which has been largely stimulated by the continuing decrease of interest rates (now at 2.5% on average). According to the Financial Stability Report of the Slovenian Central Bank, a further – albeit not directly confirmed – reason may be an increasing consumer preference for using own funds rather than taking out a mortgage loan to purchase a property. From the Bank Lending Surveys of Slovenian banks it can be seen that credit standards on housing loans have been relaxed. This was also reflected by the slight increase of 1.8 pps of LTVs for new housing loans to 56.3% on average, with a marked increase in LTVs above 70%. These now account for around a third of new housing loans in 2015, a 10 pps increase compared to the previous year[1].

Notwithstanding the clear signs of gradual increases in demand, supply remained subdued, with residential housing starts and permits issued remaining virtually unchanged with respect to the previous year at roughly 25% of the pre-crisis peak in 2007. Furthermore, the number of houses completed marked another record low at less than 2700 units, a more than 12% decrease compared to 2014. However, after several years of economic hardship, companies active in real estate and construction generated profits of EUR 0.1 billion and were also responsible for the most significant decline in the stock and proportion of claims of more than 90 days in arrears.

Mortgage Funding

The mortgage industry in Slovenia is predominantly an integral part of universal banking. Although legislation allows banks to issue mortgage backed securities, no securitisation of residential mortgages has yet taken place. Before the economic crisis in 2008, banks acquired funding on international financial markets to fuel high lending activity, however, the situation changed afterwards.

The increasing constraints on funding on the financial markets also led to an increase in the importance of funding via deposits on the domestic markets. According to the 2016 Financial Stability Report, deposits accounted for 67% of bank funding, up 22 pps compared to the end of 2008. That said, the low interest rate environment has increased the amount of sight deposits in the Slovenian banks.

	Slovenia 2014	Slovenia 2015	EU 28 2015
Real GDP growth (%) (1)	3.0	2.9	2.0
Unemployment Rate (LSF), annual average (%) (1)	9.7	9	9.4
HICP inflation (%) (1)	0.4	-0.8	0.0
Outstanding Residential Loans (mn EUR) (2)	5,348	5,525	7,040,807
Outstanding Residential Loans per capita over 18 (EUR) (2)	3,140	3,244	17,047
Outstanding Residential Loans to disposable income ratio (%) (2)	23.2	23.8	n/a
Gross residential lending, annual growth (%) (2)	6.0	40.0	n/a
Typical mortgage rate, annual average (%) (2)	3.2	2.5	2.8*
Owner occupation rate (%) (1)	76.7	n/a	n/a**
Nominal house price growth (%) (2)	-6.6	0.8	3.6

** Please note that this value is the simple average of the typical interest rate of the EU 28 countries.*

*** Please note that for the EU this data has a one year lag. For the latest available data please refer to statistical table 10.*

Sources:

(1) Eurostat

(2) European Mortgage Federation - Hypostat 2016, Statistical Tables.

[1] Financial Stability Report – June 2016, Bank of Slovenia

Slovenia Fact Table

Entities which can issue mortgage loans:	Commercial banks, savings banks, National Housing Fund
The market share of the mortgage issuances:	Data on market share not available.
Proportion of outstanding mortgage loans of the mortgage issuances:	Commercial banks and savings banks close to 100%, share of the NHF is negligible
Typical LTV ratio on residential mortgage loans:	The typical LTV ratio on new residential mortgages is 56.3%.
Any distinction made between residential and non-residential loans:	Residential loan is designated for purchase or renovation of housing.
Most common mortgage product(s):	15 year variable rate mortgage
Typical maturity of a mortgage:	15-20 years
Most common way to fund mortgage lending:	Mortgage funding in Slovenia is mainly deposit-based. As LTD has decreased from 162% in 2008 to 88% in Q1 2015 the deposits clearly represent the only funding source for the entire credit activity of banks.
Level of costs associated with a house purchase:	2-4% (2% transfer tax, up to 2% for real estate agency fee if realtor was used)
The level (if any) of government subsidies for house purchases:	No subsidies.

Spain

By Lorena Mullor and Amílcar Langarica, Asociación Hipotecaria Española

Macroeconomic Overview

The Spanish real GDP recorded an annual growth of 3.2% in 2015 (1.4% the previous year) consolidating the positive trend registered in 2014 and the second half of 2013. According to the Bank of Spain's estimations, this favourable performance of the Spanish economy is expected to continue in 2016 (with a forecast growth rate of 2.7%) as well as in 2017 and 2018 (forecasts of 2.3% and 2.1% respectively).

The main drivers of Spanish economic performance have not changed significantly as compared to 2014 with the exception of the labour market, which improved notably.

Private and public consumption constitute the main supports of the real GDP, which surpassed EUR 1.08 trillion in 2015. Exports and imports increased in the year with a resulting positive net external demand of over EUR 26.9 billion (2.5% of GDP). Gross fixed capital formation increased by 7.9% y-o-y supported by investment in construction (7.1% y-o-y) and capital goods (11.8% y-o-y).

Moreover, the labour market notably contributed to the positive performance of economic activity with over half a million employments created during the year. Although the unemployment rate remained high in relative terms at 21%, it represents a major improvement when compared to the 27% unemployment rate registered in 2013.

The public deficit fell to 5.1% from 5.7% the year before. The Government did not meet the deficit target established by EU authorities and more structural reforms are expected in the following years. The public indebtedness ratio remained above 99% of GDP.

Regarding inflation, the harmonised consumer price index decreased by 0.5% (-0.2% in 2014). This trend can be related to the decline in prices of commodities, mainly oil. The behaviour of prices in the first months of 2016 appears to follow the same trend as in 2015 and 2014.

Housing and Mortgage Markets

Housing market

The Spanish housing and mortgage markets continued to develop positively in 2015 after the adjustment and stabilisation process that began in 2014. Although the main figures of these markets show clear signs of recovery and the consolidation of a favourable performance trend, there is still room for improvement.

2015 marked an inflexion point in terms of housing prices. For the first time since its decline began in late 2008, the average housing price per square metre (valuation price) registered positive year on year variations in 2015. Prices increased at country level by 1.1% on average in 2015 up to EUR 1,490 per square metre (29% less than the maximum price registered in 2008). Moreover, the latest data available shows that prices increased by 2.4% in the first quarter of 2016. The house price index (2006=100), stood at 74.9 at the end of the year.

14 out of 18 regions recorded positive yearly variations of housing prices at the end of the year. Baleares (southern region with prominent holiday dwellings and foreign house buyers), Madrid and Rioja registered price changes above 3% (5.4%, 3.4% and 3.2% respectively). On the other hand, the most significant negative price variations were recorded in the regions of Cantabria and the Basque Country (both northern regions), at -4% and -1.3% respectively.

Housing demand has also shown signs of recovery. 2015 recorded the largest number of transactions since 2011, amounting to 401,281, a 10% increase with respect to 2014. Although the number of transactions has increased steadily since 2013, figures remain at a low point, especially when compared to the number of transactions recorded before the economic crisis (above 900,000). The majority of transactions are made by Spanish buyers whereas foreign buyers are accountable for approximately 18% of transactions.

Housing investment, measured by the number of new dwelling building permits issued, increased by 42.4% y-o-y in 2015. In absolute terms, 49,695 new dwellings were started. These figures, although positive, differ significantly from the number of building permits granted in the years 2006 and 2007, well above 600,000 and 800,000 respectively. On the other hand, the number of completed dwellings decreased by 3.6% in 2015 with 45,152 completed (over 500,000 were completed in 2007 and 2008).

Mortgage markets

The Spanish mortgage market, much like the housing market, performed favourably during the year in spite of the two main challenges that hinder a scenario of complete recovery and soundness: volume of activity and profitability.

Total outstanding residential and commercial mortgage lending amounted to EUR 692,517 million (60% of total outstanding lending for the private sector) at the end of 2015, with an annual fall of 3.9% and an absolute variation of EUR 28,672 million. The total accumulated loss in outstanding mortgage lending since 2007 exceeds EUR 350,000 million. Lending to the construction and real estate sectors, which were greatly leveraged during the expansive period of the market, experienced a more pronounced adjustment of -10.5%.

Outstanding residential loans also experienced a decrease of 4%, amounting to EUR 562,828 million in December of 2015 (accumulated annual loss of EUR 23,781 million), representing 81% of the total mortgage lending.

Notwithstanding the falls in these figures, new residential lending increased by 33% amounting to EUR 35,721 million (the highest figure since 2011). Gross residential lending has been growing since 2013 even though the figures are far from new residential lending in the pre-crisis peak of EUR 170,299 million in 2006.

The positive performance in new lending is mainly supported by a notably improved macroeconomic and unemployment scenario, which, taking into account the pronounced deleveraging process undertaken by households and businesses, has improved creditworthiness and lending conditions, which also find a driver in the low interest rates environment induced by the ECB's expansive monetary policy (Euribor is the benchmark index for over 90% of Spanish mortgages).

The interest rate weighted average for new residential lending remained on the downward trend recorded in previous periods, in line with shrinking official indexes. Specifically, the interest rate for new residential lending (weighted average) in 2015 was 2.24%, 72 basis points lower than in 2014. Variable interest rates (up to one year of initial rate fixation) decreased from 2.77% in 2014 to 2.04% in 2015. Likewise, rates with an initial fixation period of over 10 years fell over 40% to 2.8%.

Fixed term mortgages have increased their presence in the market given the stability they offer to the family economy and financial institutions given that interest rates are likely to remain low or continue falling in the coming years. Accordingly, up to December 2015, approximately 40% of new residential loans were originated with fixed term rates (in 2008 less than 10% of new loans originated with fixed term rates).

LTV ratios for new loans did not change significantly compared to 2014. On average, the LTV ratio for new loans in 2015 was 62% and approximately 14% of new loans were granted with an LTV of over 80%.

The ratio of doubtful loans improved supported by enhanced economic fundamentals and the actions undertaken by the financial sector regarding their troubled portfolios. In this regard, the doubtfulness ratio of the private sector fell by 20% in 2015 to 10.3%. The same ratio for residential loans also decreased closing the year at 4.8% (19% less than in 2014). The ratio for construction and real estate loans remained high at 28% even though it fell from 35.4% in 2014. It is worth noting that, for reasons of prudence, a portion of refinanced and restructured loans were reclassified as "doubtful" loans (from "normal" loans) in 2014 following the Bank of Spain's recommendations.

Mortgage Funding

The main funding instruments for the Spanish mortgage market have not changed since the previous year: saving deposits and *cédulas hipotecarias* (Spanish covered bonds).

Saving deposits fell mildly in 2015, as they did in 2014, amounting to EUR 1.4 trillion (1.6% less than in 2014). Accordingly, the loan-to-deposit ratio (considering total outstanding mortgage lending) also fell to 50.2% from 51%.

The outstanding volume of mortgage securities amounted to EUR 369,112 million in 2015 (69% corresponding to *cédulas hipotecarias* and 21% to mortgage backed securities (MBS)).

The outstanding volume of *cédulas hipotecarias* amounted to EUR 252,383 million in December 2015, 10.7% less than the previous year. New issuance of *cédulas* increased by 36.2% in 2015, rising to EUR 31,375 million.

Regarding MBS, issuance in 2015 amounted to EUR 10,133 million (41% less than in 2014) and the outstanding volume of MBS as of December 2015 was EUR 114,992 million (4.1% less than the previous year).

	Spain 2014	Spain 2015	EU 28 2015
Real GDP growth (%) (1)	1.4	3.2	2.0
Unemployment Rate (LSF), annual average (%) (1)	24.5	22.1	9.4
HICP inflation (%) (1)	-0.2	-0.6	0.0
Outstanding Residential Loans (mn EUR) (2)	586,609	562,828	7,040,807
Outstanding Residential Loans per capita over 18 (EUR) (2)	15,371	14,771	17,047
Outstanding Residential Loans to disposable income ratio (%) (2)	87.2	81.8	n/a
Gross residential lending, annual growth (%) (2)	22.6	33.3	n/a
Typical mortgage rate, annual average (%) (2)	3.0	2.2	2.8*
Owner occupation rate (%) (1)	78.8	78.2	n/a**
Nominal house price growth (%) (2)	-0.3	1.8	3.6

** Please note that this value is the simple average of the typical interest rate of the EU 28 countries.*

*** Please note that for the EU this data has a one year lag. For the latest available data please refer to statistical table 10.*

Sources:

(1) Eurostat
(2) European Mortgage Federation - Hypostat 2016, Statistical Tables.

Spain Fact Table

Entities which can issue mortgage loans:	In Spain, mortgage lending is always provided by financial institutions. Banks, savings banks, credit cooperatives, and financial credit establishments are the institutions allowed by law to grant mortgage loans and issue securities. It is worth mentioning that saving banks were specially affected by the recent crisis due to the high exposure to the real estate sector. Several saving banks disappeared through liquidation or acquisition, and most of the remaining transformed into banks after Law 26/2013 of 27th of December was passed. Since then, only small and regional saving banks operate in the market.
The market share of the mortgage issuances:	In 2014 around an 85% of the total volume of new mortgage loans was granted by banks. Other financial institutions, like credit cooperatives and financial credit establishments, represented the remaining 15%.
Proportion of outstanding mortgage loans of the mortgage issuances:	Banks and former saving banks stand for the major part of the market, representing around a 91% of total outstanding mortgage lending. The remaining 9% is covered by credit cooperatives (8%) and financial credit establishments (1%).
Typical LTV ratio on residential mortgage loans:	On average terms, the LTV ratio on new residential mortgage loans stands at around 60% (according to Bank of Spain statistics). The most common LTV for first time buyers is 80%.
Any distinction made between residential and non-residential loans:	Residential loans include loans granted to households for housing purchase or renovation.
Most common mortgage product(s):	The most common mortgage loan product in Spain is the variable rate mortgage loan reviewable every 6 or 12 months with a French amortisation system. In variable rate mortgage loans the interest rate is linked to an official reference index (being the most common the Euribor 12m). Since the end of 2008, initial-fixed interest rate mortgage loans, with a fixation period up to 5 year, are gaining increasing importance in the market, representing around a 30% of gross lending.
Typical maturity of a mortgage:	The average maturity for a mortgage loan in Spain is 20-25 year. Although the real amortisation period is usually lower, between 10 to 15 years.
Most common way to fund mortgage lending:	Deposits, covered bonds and RMBS/CMBS.
Level of costs associated with a house purchase:	The main transactions cost associated with house purchase are VAT for new housing, that represents a 10% of the value of the house and the Tax on property transfer for second hand dwellings (normally between 6-10%, depending on the geographical area). Other transaction costs like land property registration, notary fee's, and costs related with the mortgage can come to a 3-5% of the housing value.
The level (if any) of government subsidies for house purchases:	There are not housing subsidies for housing purchase since the end of 2012.

Sweden

By Christian Nilsson, Swedish Bankers' Association

Macroeconomic Overview

The Swedish economy is entering a boom period, writes the National Institute of Economic Research. Their research shows that the influx of refugees will contribute to the expansionary fiscal policy this and the coming year, and that low inflation will keep interest rates low. Both demand and employment will therefore grow quickly, and unemployment will fall. However, challenges include integrating refugees into the labour market and the considerable imbalances in the housing market.

The National Institute of Economic Research writes that the Swedish economy has been growing strongly for more than a year and that GDP increased by 1.3% from the third to the fourth quarter of 2015. This was due to a sharp rise in domestic demand, while exports also grew surprisingly strongly given the weak growth in world trade. After rising rapidly over the past two years, housing investment is now at its highest level relative to GDP in more than 20 years.

Employment has grown relatively strongly in the last years and increased by 0.5 pps in the fourth quarter of 2015. Unemployment decreased further in 2015 to 7.4%, compared to 8.0% in 2014. The National Institute of Economic Research expects unemployment to decrease further the coming years. At the same time, more and more refugees will be joining the labour force, which will continue to grow relatively quickly.

Inflation has been well below the Riksbank's target for the past five years. This is partly explained by a weak growth in prices for internationally traded goods, a slow wage growth and fewer possibilities to transfer cost increases to consumers.

Fiscal policy was expansionary in the period of 2009-2014, resulting in a decline in structural net lending in the government sector. Last year, fiscal policy became more contractionary, as all increases in expenditure were funded with equivalent tax increases.

Housing and Mortgage Markets

Housing completion continues to increase and reached around 35,000 dwellings in 2015, compared to 29,200 dwellings in 2014. The figure is expected to increase further as the numbers of housing starts and building permits have continued to increase in 2015 and 2016. Housing starts increased by 22% in 2015 to around 44,500 dwellings. This is, with the exception of 2006, the highest figure since the beginning of the 1990s. However, the demand for housing is high and the construction figures have been low for many years. Especially in the larger cities there is a lack of housing.

Transactions continued their upwards trend, increasing by 4% with respect to 2014 and surpassing the pre-crisis peak in 2007.

Prices of one-family homes increased by 10.8% during 2015, and the pace of the price increase accelerated during the year. Prices of tenant-owned apartments increased even further, and during 2015 apartments increased by around 18%. Comparing the larger cities in Sweden, price developments in the Malmö-region have been slower than in Stockholm and Gothenburg. Price increases in less-populated areas in Sweden have also been quite different from the developments in large to middle-sized city regions.

One important factor of the price increases in housing is the lack of housing and the large imbalances on the housing markets. Construction figures are increasing in Sweden, but according to the National Board of Housing, there is a lack of housing in 240 of the 290 municipalities in Sweden.

In 2016, the price development seems to be calming down especially in the Stockholm region. The price increases seem to have levelled out during the spring of 2016.

Residential mortgage lending rose further in 2015 by 8.1% compared to 2014, when outstanding residential mortgages grew by 5.6%. The growth rate of residential loans has been increasing since 2012, when residential mortgages increased by 4.5%.

Several factors explain the increasing residential lending. An important one is the lack of housing. The Swedish population is growing in record numbers due to high immigration and relatively high birth rates. Inward migration in Sweden towards the south and larger cities has continued for several years. This, in combination with a long period of comparably low residential housing construction, has created a severe lack of housing and housing imbalances. As mentioned above, the construction figures are increasing in Sweden, but according to the National Board of Housing there is still a lack of housing in 240 of the 290 municipalities in Sweden. An additional factor are historically low mortgage interest rates.

The authorities have tried to restrain the development with different measures. An LTV ceiling of 85% on new mortgage lending has been imposed and risk weights on mortgage lending have been increased. The last five years, interest-only loans have been curbed by the banks. In June 2016 an amortisation law has been imposed, which means that all new mortgage loans with an LTV ratio of above 50% must be amortised.

The variable (3-month) mortgage interest rate continued to decrease during 2015, from 1.7% in December 2014 to 1.4% in December 2015. The variable mortgage interest rate seems to have levelled out since the autumn of 2015. Also the initial fixed mortgage interest rates, 1-5 years, decreased during 2015. Initial fixed mortgage interest rates of over 5 years were more or less unchanged during 2015. Initial fixed mortgage rates reached record lows during 2015.

Finansinspektionen, the Swedish FSA, publishes an annual report on the mortgage lending market. The report is an important part of the Finansinspektionen's analysis of the mortgage market and the debt situation of Swedish households. According to the report, there are few new mortgage loans with an LTV above 85%. The average LTV for new mortgage loans was 65% in 2015, which is lower than in 2014. The share of households with new loans that are amortised is increasing, and in 2015 the share increased to 67% compared to 44% in 2011.

Mortgage Funding

Covered bonds are the most common form of funding used in the Swedish market for funding mortgages. During 2015, the Swedish stock of covered bonds increased by 3.5% (in SEK) to EUR 222 billion. The Swedish mortgage institutions issued new covered bonds amounting to EUR 60 billion in 2015.

	Sweden 2014	Sweden 2015	EU 28 2015
Real GDP growth (%) (1)	2.3	4.2	2.0
Unemployment Rate (LSF), annual average (%) (1)	8.0	7.4	9.4
HICP inflation (%) (1)	0.2	0.7	0.0
Outstanding Residential Loans (mn EUR) (2)	339,152	374,754	7,040,807
Outstanding Residential Loans per capita over 18 (EUR) (2)	44,089	48,280	17,047
Outstanding Residential Loans to disposable income ratio (%) (2)	152.3	166.4	n/a
Gross residential lending, annual growth (%) (2)	10.0	18.7	n/a
Typical mortgage rate, annual average (%) (2)	2.1	1.6	2.8*
Owner occupation rate (%) (1)	69.3	n/a	n/a**
Nominal house price growth (%) (2)	6.9	10.8	3.6

** Please note that this value is the simple average of the typical interest rate of the EU 28 countries.*

*** Please note that for the EU this data has a one year lag. For the latest available data please refer to statistical table 10.*

Sources:

(1) Eurostat
(2) European Mortgage Federation - Hypostat 2016, Statistical Tables.

Sweden Fact Table

Entities which can issue mortgage loans:	There are no specific limitations as regards issuing mortgages. In practice 99.9% of all mortgage lending in Sweden is issued by banks and credit market institutions.
The market share of the mortgage issuances:	There is an approximate share of 75% for credit market institutions (mortgage credit institutions) and 25% for banks.
Proportion of outstanding mortgage loans of the mortgage issuances:	Approximately the same as in question 2 above.
Typical LTV ratio on residential mortgage loans:	According to Finansinspektionen the average LTV for new mortgage loans in 2015 was 65%.
Any distinction made between residential and non-residential loans:	The distinction is made based on how the loan is secured. Residential loans are secured on residential property.
Most common mortgage product(s):	Ordinary mortgage loans. Variable interest is the most common interest rate on mortgages.
Typical maturity of a mortgage:	The expected average length of a mortgage loan is 7.5 years. Contractual lengths of mortgage loans vary normally between 30 to 50 years. However, for many different reasons mortgage borrowers either terminate their mortgage permanently or terminate and get a new one before the contractual length is reached.
Most common way to fund mortgage lending:	Covered bonds.
Level of costs associated with a house purchase:	Different studies seem to indicate that the level of cost associated with a house purchase is very low in Sweden. Transaction costs in Sweden consist mainly of stamp tax (1.5%) and, if you need a loan, of a mortgage fee (2% of the new or increased mortgage). Normally you do not pay any fee to the mortgage lender.
The level (if any) of government subsidies for house purchases:	There are no direct subsidies in Sweden. However, borrowers are allowed to deduct 30% of the interest payments from their tax payments.

United Kingdom

By Mohammad Jamei, Council of Mortgage lenders

Macroeconomic Overview

Economic growth in the UK continues to remain strong, as GDP growth was 2.2% in 2015. This was driven mainly by household consumption, and gross fixed capital formation. Public consumption continued to contribute positively to economic growth while net exports were the biggest drag on growth.

The labour market has performed strongly in 2015 as the unemployment rate fell from 5.7% at the end of 2014 to 5.1% by the end of 2015. In level terms, there was a fall of 161,000 unemployed people, bringing the total to 1.69 million. On the other side, employment numbers grew by 594,000 over the course of 2015, leading to an employment rate of 74.1% from 73.2% at the start of the year. The employment rate is currently higher than at any point over the last 45 years. At the end of 2015, there were 31.5 million people in work in the UK.

Inflation over the course of 2015 was at or close to 0% for the whole year, after falling below the Bank of England's 2% target at the start of 2014. The inflation rate (as measured by the Harmonised Index of Consumer Prices) was 0.0% in 2015, compared to 1.5% in 2014. This fall in inflation has been driven mainly by a fall in commodity prices, which is expected to fall away towards the second half of 2016.

Austerity continues to be the theme of public finances in the UK. At the time of the March 2016 Budget, the Office for Budget Responsibility (OBR) were projecting that the government will balance its underlying structural borrowing position by the end of 2019-20. Public sector net debt as a proportion of GDP is forecast to have peaked at 83.7% in 2015-16, and to then fall to 74.7% by 2020-21.

Housing and Mortgage Markets

The UK housing market can be characterised as dysfunctional and highly diverse. The underlying picture is that housing demand has outstripped new supply for more than a decade bringing heightened affordability pressures, particularly for first-time buyers. However, there are large differences across the UK, with some areas experiencing particularly high demand with limited supply response, while other areas have the opposite problem.

The supply-demand imbalance has grown since the financial crisis. Housing completions in the UK peaked at 226,000 in 2007, but dropped back in the aftermath of the crisis and were 145,000 in 2014 – significantly lower than the projected growth in the number of households of around 225,000 households per year.

During 2015, new housing supply in England [data not yet available for the UK overall] remained subdued – while completions increased by 21% compared to 2014 and new starts increased by 7%, these figures are about 20% below their respective pre-crisis peaks. They also remain substantially below the level required to keep up with household formation levels.

UK house prices fell by 15% from the peak in October 2007 following the financial crisis. Prices have since increased and are now 19% higher than the pre-crisis peak. During 2015 there was strong growth, with prices on average 9% higher than in 2014 (as measured by the Office for National Statistics house price index at the mortgage completion stage).

The UK-wide figures hide significant variations across the UK. Parts of southern England have experienced the largest increases – particularly in London where, at the end of 2014, prices were 9% higher than a year earlier. On the other hand, prices in the north east of England grew by just 0.9% in the same period. There has been a mixed picture in other parts of the UK with a general trend for weaker growth in northern parts of England and in Scotland compared to the south, but with some locations within regions bucking this overall trend.

After peaking at 69% in 2003 the UK home-ownership rate has drifted downwards. In 2014, 63% of dwellings in the UK were owner-occupied.

The value of outstanding mortgages in the UK totalled GBP 1,278 billion at the end of 2015, a small increase from GBP 1,256 billion at the end of 2014, while gross mortgage lending totalled GBP 219.8 billion in 2015, up from GBP 203.3 billion in 2014.

The growth in total gross mortgage lending was driven by lending for remortgage and lending to the buy-to-let (BTL) sector. There was a 39% increase in BTL lending, albeit from a low base, to GBP 37.9 billion. Lending for remortgage (excluding BTL remortgage) increased by 12% through 2015 to reach GBP 55.1 billion.

Mortgage interest rates in the UK fell in 2015, reaching new historic lows. The average mortgage interest rate on new lending was 2.62% (down from 3.12% in 2014) in 2015. This was driven by improvements in funding conditions, a fall in swap rates and increased competition amongst lenders as they looked to increase their market shares.

Consistent with the increase in house purchase lending, the number of property transactions also increased in 2015 – totalling 1,229,000 in 2015, which is up slightly from 1,219,000 in 2014, but still about a quarter lower than the level seen before the financial crisis when around 1,600,000 transactions in a year were more typical.

Regulation that came into effect in 2014 continued to impact the market in 2015. These changes were the introduction of the regulators' mortgage market review (MMR), which came into effect in April 2014, and had some impact on activity in the housing market. It did not cause dramatic changes or lasting market disruptions, as lenders were preparing for the changes months before they came into effect. The MMR rules were designed to ensure borrowers can only borrow loans that they can afford to service. This then places more responsibility with lenders to ensure they assess customers' affordability longer term.

The other noteworthy change in 2014 was that the Bank of England's Financial Policy Committee (FPC) was given powers to limit high LTV and LTI mortgages if they believed the housing market posed a risk to financial stability. The FPC announced in June 2014 that lenders should assess affordability in the event of mortgage rates rising by 3% and limit the number of loans above 4.5 times a borrower's income to no more than 15% of each firm's new lending. This came into effect in October 2014, though as with MMR, lenders began preparations soon after the announcement and were building up to it before the rules came into effect.

A fiscal change in the housing market was announced and took effect at the end of 2014. This was a change to the transaction tax (Stamp Duty Land Tax) paid when purchasing properties in the UK. The move was expected to benefit 98% of house buyers, with the vast majority of transactions valued up to GBP 937,500 better off, but the benefits of this change are likely to have been diluted by stronger house price growth.

The performance of the outstanding mortgage book continued to improve during 2015, a trend observed from the end of 2010. Loans with arrears representing more than 2.5% of the outstanding balance fell to 0.91% of all loans outstanding (from 1.03% at the end of 2014). Also showing an improvement, the number of properties taken into possession totalled 10,200 in 2015, down from 20,900 in 2014 and the lowest total since 2004.

Mortgage Funding

UK lenders continued to experience good funding conditions across a variety of markets in 2015. Retail deposit flows, particularly in the Individual Savings Account market, remain healthy despite the very low interest rate environment in the UK.

Overall, UK lenders have been able to access the wholesale funding capital markets during 2015, raising funding from across a broad spectrum of markets (e.g. senior unsecured, covered bonds and residential mortgage back securities) in different currencies and across different maturities. UK lenders were therefore able to further improve the diversification of their wholesale funding base. However, at times during 2015, wholesale funding markets have been very volatile due to a number of macroeconomic issues (e.g. concerns over the oil price and growth in China) and this volatility has, at certain points in time, impacted the ability of all lenders to access the wholesale funding markets on attractive terms.

While we continue to see a recovery in the securitisation market, this market remains relatively expensive when compared to other alternatives e.g. covered bonds. The market remains considerably smaller than it was pre-crisis, and a number of investors have exited the market given the continuing asymmetrical regulatory treatment (under Solvency II) of residential mortgage-backed securities against covered bonds.

	UK 2014	UK 2015	EU 28 2015
Real GDP growth (%) (1)	3.1	2.2	2.0
Unemployment Rate (LSF), annual average (%) (1)	6.1	5.3	9.4
HICP inflation (%) (1)	1.5	0.0	0.0
Outstanding Residential Loans (mn EUR) (2)	1,612,453	1,741,369	7,040,807
Outstanding Residential Loans per capita over 18 (EUR) (2)	31,810	34,043	17,047
Outstanding Residential Loans to disposable income ratio (%) (2)	110.9	104.2	n/a
Gross residential lending, annual growth (%) (2)	20.6	20.1	n/a
Typical mortgage rate, annual average (%) (2)	3.1	2.6	2.8*
Owner occupation rate (%) (1)	64.8	n/a	n/a**
Nominal house price growth (%) (2)	10.0	7.1	3.6

** Please note that this value is the simple average of the typical interest rate of the EU 28 countries.*

*** Please note that for the EU this data has a one year lag. For the latest available data please refer to statistical table 10.*

Sources:

(1) Eurostat
(2) European Mortgage Federation - Hypostat 2016, Statistical Tables.

United Kingdom Fact Table

Entities which can issue mortgage loans:	Monetary and Financial Institutions (MFIs), which includes banks and building societies Other specialist lenders (non-bank, non-building society UK credit grantors, specialist mortgage lenders, retailers, central and local government, public corporations, insurance companies and pension funds) Other (anything not covered elsewhere)
The market share of the mortgage issuances:	MFIs – 91% Other specialist lenders – 8% Other – 1%
Proportion of outstanding mortgage loans of the mortgage issuances:	MFIs – 87% Other specialist lenders – 9% Other – 4%
Typical LTV ratio on residential mortgage loans:	75%
Any distinction made between residential and non-residential loans:	[We have taken non-residential loans to mean commercial in this context] The distinction is based on the property being purchased and the purpose it will be used for. A residential loan is used to purchase a property that a person will live in. A commercial loan is one that is used to purchase commercial land or buildings.
Most common mortgage product(s):	Initial fixed rate products
Typical maturity of a mortgage:	25 years
Most common way to fund mortgage lending:	Retail deposits and wholesale funding
Level of costs associated with a house purchase:	Stamp Duty Land Tax – ranges from 0% to 12%, depending on property value Valuation fee – ranges from GBP 150 to GBP 1,500, depending on property value Surveyor's fee – ranges from GBP 250 to GBP 600 Legal fees – ranges from GBP 500 to GBP 1,500 Electronic transfer fee – around GBP 40 to GBP 50
The level (if any) of government subsidies for house purchases:	There are no subsidies which apply to house purchase on the whole, there are however some subsidies for specific parts of the market, such as those who live in social housing

Statistical Tables

A. The Mortgage Market

1. Total Outstanding Residential Loans

Total Amount , End of the Year, EUR million

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Austria	48,078	54,828	61,793	65,897	72,061	73,455	80,008	83,960	86,281	87,622	90,710	96,925
Belgium	89,414	101,092	114,105	126,383	137,016	151,738	161,723	172,049	183,615	189,484	197,327	207,590
Bulgaria	n/a	n/a	n/a	2,795	3,806	3,798	3,714	3,589	3,573	3,507	3,499	3,522
Croatia	2,840	3,818	5,201	6,473	7,501	7,663	8,258	8,363	8,293	8,059	7,865	7,734
Cyprus	1,487	4,131	5,421	6,935	8,501	10,388	11,921	12,545	12,679	11,854	11,655	11,644
Czech Republic	3,791	5,754	8,675	12,539	14,786	20,942	24,128	25,556	27,851	27,222	28,732	32,085
Denmark	134,774	157,106	177,868	195,693	207,267	216,697	224,036	228,743	230,741	231,850	234,518	238,787
Estonia	1,495	2,618	4,278	5,626	6,209	6,111	5,973	5,882	5,846	5,896	6,064	6,323
Finland	41,543	48,489	55,307	62,172	67,632	71,860	76,747	81,781	86,346	88,313	89,762	91,955
France	433,500	498,300	572,600	646,500	700,200	730,500	795,200	843,200	870,040	902,640	922,600	949,900
Germany	1,157,026	1,162,588	1,183,834	1,155,742	1,145,404	1,146,969	1,152,195	1,163,783	1,184,853	1,208,822	1,237,410	1,278,909
Greece	34,052	45,420	57,145	69,363	77,700	80,559	80,507	78,393	74,634	71,055	69,408	67,593
Hungary	7,765	10,565	13,688	17,397	22,346	22,463	24,659	21,950	19,985	18,499	17,146	14,872
Ireland	77,615	99,416	123,988	140,562	148,803	147,947	104,282	101,759	98,697	95,967	91,617	89,147
Italy	184,951	217,147	244,314	265,454	264,288	280,337	352,111	367,645	365,588	361,390	359,137	361,835
Latvia	1,312	2,490	4,639	6,702	7,192	6,870	6,559	5,991	5,334	5,062	4,703	4,503
Lithuania	1,258	2,268	2,997	4,849	6,055	6,027	5,983	5,866	5,811	5,836	5,945	6,093
Luxembourg	9,335	10,586	12,018	14,676	15,940	17,077	18,591	20,255	21,715	23,389	25,038	26,599
Malta	1,256	1,521	1,770	2,015	2,220	2,458	2,666	2,893	3,088	3,278	3,588	3,901
Netherlands	433,383	480,191	511,156	550,283	592,114	615,487	632,267	646,504	652,725	632,223	634,391	638,562
Poland	8,767	13,167	20,480	32,733	46,573	52,545	67,526	71,883	79,434	80,812	82,555	88,121
Portugal	71,101	79,452	91,896	101,094	105,209	110,685	114,515	113,916	110,520	106,585	102,469	98,516
Romania	n/a	766	2,176	4,203	5,715	5,687	6,722	7,561	8,766	9,327	10,095	11,501
Slovakia	2,196	3,078	5,209	6,773	8,536	9,469	10,849	12,320	13,701	15,304	17,364	19,714
Slovenia	800	1,368	1,956	2,670	3,398	3,933	4,844	5,164	5,259	5,307	5,348	5,525
Spain	384,631	475,571	571,803	646,676	674,434	678,872	680,208	666,946	641,510	612,819	586,609	562,828
Sweden	163,713	176,551	205,210	217,881	206,210	238,424	292,263	308,498	334,922	340,379	339,152	374,754
UK	1,218,030	1,377,023	1,567,072	1,576,978	1,245,107	1,342,736	1,392,970	1,439,814	1,501,265	1,483,422	1,612,453	1,741,369
Euro area 19	2,974,433	3,290,554	3,626,229	3,880,372	4,042,912	4,150,741	4,297,149	4,390,851	4,428,242	4,432,847	4,461,145	4,528,062
EU 28	4,514,113	5,035,305	5,626,599	5,947,065	5,802,222	6,061,696	6,341,424	6,506,809	6,643,072	6,635,924	6,797,160	7,040,807
Australia	191,941	234,621	253,447	283,394	267,804	401,294	536,739	596,014	621,219	533,808	563,057	625,256
Iceland	6,920	9,831	9,287	11,252	6,747	7,056	8,649	8,375	8,134	8,939	9,167	9,687
Japan	1,325,084	1,351,499	1,199,012	1,155,157	1,512,622	1,432,282	1,761,525	1,923,924	1,709,992	1,359,218	1,366,066	1,536,651
Norway	113,088	135,541	151,401	175,091	157,299	187,720	209,586	227,272	260,725	245,449	241,128	242,633
Russia	n/a	1,558	6,744	16,985	25,927	23,425	27,667	35,412	49,522	58,442	48,777	49,362
Turkey	278	1,261	6,356	12,744	13,984	16,386	20,317	24,079	31,111	28,755	38,729	39,468
USA	6,506,424	8,508,858	8,473,576	8,114,598	8,622,907	8,185,478	8,464,601	8,551,125	8,234,425	7,835,327	8,956,429	10,178,194

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

1) Time series breaks:

- Cyprus: 2004 (reclassification of loans)
- Ireland: 2010 (different definition used from 2010 - see point (1) Notes).
- Italy: 2010 (due to a change of methodology)
- Luxembourg: 2003 (due to a change in the statistical source)
- Netherlands: 2006 (due to a change of methodology)
- Norway: 2009 (due to a change in methodology)
- Malta: 2005 (due to a change in the statistical source)
- Poland: 2007 (due to a change of methodology)
- Romania: 2007 (due to a change of methodology)
- Slovakia: 2006 (due to a change of methodology)
- Sweden: 2004 (due to a change in the statistical source)

2) The series has been revised for at least two years in:

- Czech Republic
- Denmark
- Poland
- UK
- Iceland
- Norway
- Russia
- US

3) Notes:

- For further details on the methodologies, please see "Annex : Explanatory Note on data".
- n/a: figure not available.
- Please note that the conversion to euros is based on the bilateral exchange rate at the end of the period (provided by the ECB and Bloomberg).
- Please note that due to the conversion to euros, changes observed for countries not belonging to the euro area may be due to exchange rate fluctuations. To obtain values in national currency, please refer to the exchange rates used, on Table 30 of this publication.
- For Denmark the entire series has been updated.
- For Ireland, this series includes all housing loans until 2009. From 2010, this series represents only housing loans for owner-occupied dwellings.
- For Malta, this series does not include non-resident lending.
- For the UK, the entire series has been updated.
- For Japan, the reference year is the Japanse Fiscal year, from April to March.

2. Change in Outstanding Residential Loans

End of period, EUR million

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Austria	8,332	6,750	6,965	4,104	6,164	1,394	6,553	3,952	2,321	1,341	3,079	6,224
Belgium	8,070	11,679	13,013	12,277	10,634	14,722	9,985	10,326	11,566	5,869	7,843	10,263
Bulgaria	n/a	n/a	n/a	n/a	1,011	-8	-85	-125	-16	-66	-8	23
Croatia	606	978	1,382	1,272	1,028	162	595	105	-70	-234	-194	-130
Cyprus	325	2,644	1,291	1,514	1,566	1,886	1,533	624	134	-825	-199	-11
Czech Republic	1,362	1,964	2,920	3,865	2,246	6,156	3,186	1,428	2,296	-630	1,510	3,353
Denmark	12,185	22,333	20,761	17,825	11,574	9,430	7,339	4,707	1,998	1,110	2,668	4,269
Estonia	548	1,124	1,660	1,348	584	-98	-138	-91	-36	51	168	259
Finland	5,496	6,947	6,818	6,865	5,460	4,228	4,887	5,034	4,565	1,967	1,449	2,193
France	52,240	64,800	74,300	73,900	53,700	30,300	64,700	48,000	26,840	32,600	19,960	27,300
Germany	685	5,562	21,246	-28,092	-10,338	1,565	5,226	11,588	21,070	23,969	28,588	41,499
Greece	7,274	11,368	11,725	12,218	8,337	2,859	-52	-2,114	-3,759	-3,579	-1,646	-1,815
Hungary	2,020	2,799	3,124	3,709	4,948	117	2,196	-2,708	-1,965	-1,486	-1,353	-2,274
Ireland	17,994	21,801	24,572	16,574	8,241	-856	-43,665	-2,523	-3,062	-2,730	-4,350	-2,470
Italy	30,625	32,195	27,167	21,140	-1,166	16,049	71,775	15,534	-2,057	-4,198	-2,253	2,698
Latvia	619	1,177	2,150	2,063	490	-321	-312	-568	-657	-272	-359	-200
Lithuania	590	1,010	729	1,852	1,206	-29	-44	-117	-55	25	108	148
Luxembourg	1,044	1,251	1,432	2,658	1,264	1,137	1,514	1,664	1,460	1,674	1,649	1,561
Malta	226	266	249	245	205	238	208	227	195	190	310	313
Netherlands	33,230	46,808	30,965	39,127	41,831	23,373	16,780	14,237	6,221	-20,502	2,168	4,171
Poland	2,476	4,401	7,312	12,253	13,840	5,972	14,981	4,357	7,551	1,378	1,743	5,566
Portugal	4,676	8,351	12,444	9,198	4,115	5,476	3,830	-599	-3,396	-3,935	-4,116	-3,953
Romania	n/a	n/a	1,410	2,027	1,512	-28	1,035	839	1,205	562	767	1,406
Slovakia	781	882	2,131	1,564	1,763	933	1,380	1,471	1,381	1,603	2,060	2,350
Slovenia	537	568	588	714	728	535	911	320	95	48	41	177
Spain	71,715	90,940	96,232	74,873	27,757	4,438	1,337	-13,262	-25,436	-28,691	-26,210	-23,781
Sweden	29,330	12,838	28,659	12,671	-11,671	32,214	53,838	16,236	26,424	5,457	-1,227	35,602
UK	144,338	158,993	190,049	9,906	-331,872	97,630	50,234	46,844	61,450	-17,842	129,031	128,916
Euro area 19	245,006	316,121	335,675	254,143	162,540	107,829	146,408	93,702	37,391	4,605	28,298	66,917
EU 28	437,322	521,192	591,294	320,466	-144,842	259,474	279,727	165,385	136,263	-7,147	161,227	243,647
Australia	13,700	42,680	18,826	29,947	-15,590	133,490	135,446	59,274	25,205	-87,411	29,249	62,199
Iceland	1,240	2,911	-544	1,965	-4,505	309	1,593	-274	-241	805	228	520
Japan	-42,117	26,415	-152,487	-43,856	357,466	-80,340	329,243	162,399	-213,932	-350,774	6,848	170,586
Norway	14,680	22,452	15,861	23,690	-17,792	30,421	21,866	17,686	33,453	-15,275	-4,322	1,506
Russia	n/a	n/a	5,187	10,241	8,942	-2,501	4,242	7,745	14,110	8,920	-9,665	585
Turkey	128	983	5,095	6,388	1,240	2,402	3,931	3,762	7,031	-2,356	9,974	739
USA	353,296	2,002,434	-35,282	-358,978	508,309	-437,429	279,123	86,523	-316,700	-399,097	1,121,101	1,221,766

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

1) Time series breaks:
- See Table 1

2) The series has been revised for at least two years in:
- See Table 1

3) Notes:
- For further details on the methodologies, please see "Annex : Explanatory Note on data".
- n/a : figure not available.
- Please note that the time series are the result of the variation between two consecutive amounts of outstanding mortgage loans.
- Please note that the conversion to euros is based on the bilateral exchange rate at the end of the period (provided by the ECB and Bloomberg).
- Please note that due to the conversion to euros, changes observed for countries not belonging to the euro area may be due to exchange rate fluctuations. To obtain values in national currency, please refer to the exchange rates used, on Table 27 of this publication.

3. Gross Residential Loans

Total Amount, EUR million

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Austria	7,064	8,861	9,467	10,765	11,130	11,761	12,941	14,501	15,441	15,874	16,877	21,166
Belgium	17,264	25,198	24,323	22,825	21,531	22,076	26,768	28,074	25,994	25,077	29,441	35,912
Bulgaria	n/a	n/a	n/a	1,783	1,648	617	669	656	599	635	697	973
Czech Republic	1,590	2,609	4,094	5,395	4,935	2,689	3,216	4,757	4,566	5,453	7,081	8,646
Cyprus	n/a	n/a	n/a	n/a	n/a	2,098	3,017	1,907	1,518	1,399	525	644
Denmark	40,239	66,414	42,049	35,796	31,340	44,593	41,386	24,095	43,199	24,700	35,303	50,700
Estonia	805	1,465	2,339	2,136	1,433	446	419	490	566	686	819	942
Finland	17,721	25,957	27,000	28,931	26,669	19,739	20,972	22,537	21,400	17,514	17,540	33,307
France	105,384	129,014	150,142	154,887	128,600	109,600	138,437	145,546	117,093	109,954	111,170	127,583
Germany	114,400	123,100	133,600	132,000	132,800	131,300	142,700	150,600	162,900	170,100	177,100	208,600
Greece	8,036	13,610	15,444	15,199	12,435	7,966	n/a	n/a	n/a	n/a	n/a	475
Hungary	n/a	2,931	4,197	5,787	6,240	1,907	1,398	1,294	1,214	623	885	1,343
Ireland	16,933	34,114	39,872	33,808	23,049	8,076	4,746	2,463	2,636	2,495	3,855	4,848
Italy	62,273	72,678	82,148	83,604	74,102	64,021	67,800	59,196	32,683	28,904	34,880	66,390
Latvia	n/a	n/a	n/a	n/a	n/a	n/a	119	160	176	221	247	271
Lithuania	594	865	1,171	1,852	1,808	1,050	706	876	856	856	876	1,050
Luxembourg	3,390	4,004	4,374	4,669	3,979	4,456	5,095	5,065	5,523	4,817	5,694	6,347
Malta	n/a	226	266	245	205	238	210	227	n/a	n/a	n/a	n/a
Netherlands	74,900	102,793	106,661	82,711	73,197	53,107	63,500	73,315	54,580	53,256	68,064	109,462
Poland	n/a	n/a	n/a	n/a	n/a	n/a	2,666	n/a	6,646	7,716	8,003	9,850
Portugal	18,260	17,578	18,391	19,630	13,375	9,330	10,105	4,853	1,935	2,049	2,313	4,013
Romania	n/a	2,119	3,648	2,256	2,337	921	1,458	1,472	1,455	1,521	1,542	2,516
Slovakia	n/a	n/a	n/a	n/a	n/a	2,332	3,329	3,922	3,803	4,873	5,840	6,362
Slovenia	n/a	n/a	n/a	n/a	672	1,456	1,213	928	705	597	633	886
Spain	122,548	154,336	170,299	145,298	87,074	73,155	69,479	37,448	32,279	21,857	26,800	35,721
Sweden	33,299	43,885	41,290	43,895	33,776	39,909	45,077	38,887	40,616	46,498	51,168	60,761
UK	429,081	416,496	499,758	521,524	311,071	157,923	156,090	159,123	178,450	209,123	252,196	302,822
euro area 19**	569,571	713,573	785,232	738,315	611,854	519,871	568,328	549,973	478,569	459,130	502,149	663,979
EU 28*	1,073,780	1,248,253	1,380,534	1,354,996	1,003,406	770,766	823,515	782,391	756,832	756,798	859,547	1,101,590
Australia	73,449	88,714	97,128	108,455	88,274	104,737	108,197	117,497	131,817	132,369	135,060	157,716
Iceland	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	858	994	1,769
Japan	169,000	173,149	145,129	121,445	129,575	148,236	169,821	180,760	197,864	159,097	137,036	149,101
Russia	n/a	1,601	7,726	15,891	18,006	3,455	9,439	17,536	25,847	31,980	34,623	17,065
Turkey	n/a	7,732	8,626	8,696	8,057	9,811	15,939	12,728	12,305	19,893	12,566	15,464
USA	2,347,456	2,507,837	1,174,737	1,773,076	1,019,853	1,319,186	1,229,539	1,073,994	1,650,062	1,423,086	978,547	1,563,767

Source: European Mortgage Federation National Experts, European Central Bank, Japan Housing Finance Agency, National Central Banks, Federal Reserve, Inside Mortgage Finance

1) Time series breaks:
- France (2007)
- The Netherlands (2003: change of source; 2004-2007: change of methodology)
- USA (2006)

2) The series has been revised for at least two years in:
- Denmark
- France
- Italy
- Spain
- UK
- Iceland
- Turkey

3) Notes:
- For further details on the methodologies, please see "Annex: Explanatory Note on data".
- n/a : figure not available.
- Please note that the conversion to euros is based on the yearly average bilateral exchange rate (provided by the ECB).
- Please note that due to the conversion to euros, changes observed for countries not belonging to the euro area may be due to exchange rate fluctuations. To obtain values in national currency, please refer to the exchange rates used, on Table 30 of this publication.
- Data includes internal remortgaging for the following countries: Slovakia and Italy.
- For Austria and Turkey the figure includes only new loans.
- For Spain the figure also includes credits to households.
- For Sweden only residential lending from mortgage credit institutions is included. Lending by banks is not included in the above. However, mortgage credit institutions are estimated to constitute around 75% of the total residential mortgage credit market.
- For Denmark the figure does not include second homes.
- For Japan, the reference year is the Japanse Fiscal year, from April to March.

* "EU 28" = AT, BE, BG, CZ, DE, DK, EE, EL, ES, FI, FR, HU, IE, IT, LT, LV, LU, PT, RO, SE, SI, SK, UK.

** "euro area" = AT, BE, CY,DE, EE, EL, ES, FI, FR, IE, IT, LT, LU, LV, MT, NL, PT, SI, SK (when available).

4. Representative Interest Rates on New Residential Loans

Annual average based on monthly figures, %

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Type
Austria	3.90	3.58	3.80	4.79	5.32	3.71	2.71	2.86	2.71	2.39	2.29	2.02	1
Belgium	4.17	3.65	4.08	4.71	5.09	4.25	3.59	3.81	3.63	3.45	3.17	2.50	1
Bulgaria	n/a	n/a	n/a	8.31	9.09	10.09	8.97	8.23	7.51	6.90	6.58	5.81	1
Croatia	6.19	5.20	4.81	4.94	5.78	6.36	6.32	5.48	5.45	5.04	5.05	5.07	1
Cyprus	6.61	5.90	5.45	5.61	6.47	5.01	5.16	5.73	5.32	4.67	4.36	3.28	2
Czech Republic	4.79	3.96	4.18	4.69	5.61	5.61	4.90	4.04	3.52	3.26	2.56	2.42	1
Denmark	3.05	3.32	4.28	5.36	5.77	3.21	2.17	2.41	1.41	1.20	1.29	1.09	1
Estonia	4.07	3.28	4.28	5.49	5.82	3.87	3.50	3.42	2.86	2.54	2.43	2.25	1
Finland	3.14	2.99	3.72	4.71	5.01	2.45	1.98	2.50	1.97	1.98	1.80	1.35	1
France	3.92	3.49	3.71	4.26	4.84	4.09	3.42	3.80	3.56	3.01	2.72	2.13	1
Germany	4.74	4.25	4.61	5.09	5.22	4.26	3.69	3.84	3.06	2.76	2.49	1.95	4
Greece	4.21	3.86	4.36	4.76	4.92	3.08	3.65	4.18	3.04	2.81	2.94	2.69	2
Hungary	16.07	13.15	9.82	9.98	10.91	11.55	10.88	10.46	10.51	9.85	8.48	6.21	2
Ireland	3.44	3.42	4.06	4.93	5.17	3.14	3.13	3.46	3.28	3.44	3.42	3.50	1
Italy	3.66	3.73	4.87	5.72	5.09	2.88	2.97	4.03	3.69	3.50	2.83	2.50	1
Latvia	5.60	4.53	4.96	6.10	7.02	4.95	4.09	4.12	3.66	3.53	3.44	3.43	1
Lithuania	n/a	3.32	4.06	5.40	5.83	4.17	3.70	3.71	2.97	2.39	2.15	1.88	1
Luxembourg	3.38	3.48	3.95	4.74	4.90	2.49	2.16	2.40	2.23	2.13	2.03	1.86	2
Malta	n/a	n/a	n/a	n/a	3.84	3.51	3.43	3.38	3.40	3.03	2.85	2.99	1
Netherlands	4.15	3.76	4.38	4.97	5.34	4.86	4.52	4.55	4.27	3.78	3.37	2.93	1
Poland	7.80	6.98	5.74	6.09	8.05	7.23	6.48	6.70	6.95	5.14	4.10	3.60	1
Portugal	3.45	3.34	3.98	4.78	5.42	2.69	2.43	3.74	3.89	3.26	3.21	2.38	2
Romania	n/a	n/a	n/a	6.60	6.67	7.16	5.31	5.84	5.03	4.73	5.06	3.99	2
Slovakia	n/a	n/a	n/a	n/a	6.04	5.90	5.24	4.84	4.74	4.10	3.38	2.70	1
Slovenia	4.90	4.99	5.83	6.50	6.73	4.45	3.34	3.77	3.37	3.20	3.21	2.53	1
Spain	3.24	3.22	4.05	5.10	5.67	3.25	2.53	3.37	3.30	3.04	2.96	2.24	2
Sweden	3.12	2.50	3.53	4.54	5.15	2.02	2.35	3.85	3.45	2.70	2.15	1.55	2
UK	4.95	5.17	5.05	5.69	5.75	4.21	3.81	3.62	3.69	3.24	3.12	2.62	1
Australia	7.05	7.26	7.61	8.20	8.91	6.02	7.28	7.74	6.98	6.18	5.95	5.58	2
Iceland	4.21	4.17	4.69	5.24	6.03	5.67	5.18	4.86	4.26	3.92	3.87	4.03	6
Japan	2.73	2.38	2.83	2.82	2.89	2.74	2.36	2.32	1.95	1.87	1.62	1.52	6
Norway	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	3.98	3.78	2.86	6
Russia	n/a	14.90	13.70	12.60	12.90	14.30	13.10	11.90	12.29	12.44	12.45	13.35	1
Turkey	25.19	15.10	21.53	16.21	21.78	12.21	9.53	14.35	9.90	10.73	11.03	14.07	1
USA	5.84	5.86	6.41	6.34	6.04	5.04	4.69	4.46	3.66	3.98	4.17	3.85	6

Source: European Mortgage Federation National Experts, European Central Bank, Japan Housing Finance Agency, National Central Banks, Federal Reserve, Housing Industry Association

1) Time series breaks:

- Czech Republic: 2013 (source was changed from 2013 to the Central Bank data)
- Croatia: 2012 (new series from 2012 onwards due to revised methodology)
- Iceland: 2005 (in 2004, the average is based on data between September and December)
- Romania: 2014 (change in the methodology of the NBR to reflect the changes in granting mortgages by currency)
- Slovakia: 2009 (before 2009, the reference currency for the interest rate was SKK)
- Slovenia: 2007 (before 2007, the reference currency for the interest rate was SIT)
- Sweden: 2005 (before 2005, the average was calculated with quarterly data)
- Japan: 2003 (the underlying mortgage products were changed due to a succession in Japan of government agencies dealing with housing finance)

2) The series has been revised for at least two years in:

- Belgium
- Denmark
- Estonia
- Germany
- Greece
- Slovenia
- Turkey

3) Notes:

- For further details on the methodologies, please see “Annex : Explanatory Note on data”.
- n/a : figure not available.
- For national definitions of representative interest rates on new residential loans, please see the methodological Annex (“Explanatory Note on data”).
- **Type:** The type of new residential loan related to the published representative interest rate is provided in the column “type”. There are 6 main types:
  (1) Weighted average interest rate on loans to households for house purchase
  (2) Initial fixed period interest rate up to 1 year on loans for house purchase
  (3) Initial fixed period interest rate over 1 and up to 5 years on loans for house purchase
  (4) Initial fixed period interest rate over 5 and up to 10 years on loans for house purchase
  (5) Initial fixed period interest rate of over 10 years on loans for house purchase
  (6) Other
- For Iceland the number represents real interest rate.

5. Average amount of a Mortgage granted
EUR

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Czech Republic	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	41,833	40,703	41,929
Denmark	n/a	n/a	n/a	n/a	119,073	122,730	126,849	129,030	131,649	130,288	132,820	138,767
Finland	65,995	73,326	79,838	85,377	87,391	90,626	93,186	93,990	94,502	94,416	94,171	95,735
Germany	n/a	n/a	n/a	n/a	n/a	175,000	n/a	n/a	185,000	n/a	n/a	212,000
Hungary	n/a	n/a	n/a	n/a	n/a	n/a	n/a	16,358	15,108	13,945	15,322	17,032
Latvia	n/a	n/a	n/a	n/a	n/a	n/a	39,041	30,709	25,445	27,438	30,315	31,390
Poland	20,818	27,231	35,714	49,499	58,421	46,781	51,557	50,445	47,493	47,604	49,364	50,633
Slovakia	n/a	35,869	42,705	47,937	51,921	53,195	52,401	55,141	53,692	59,267	62,091	59,035
Spain	110,275	124,797	140,324	148,865	139,655	117,655	116,860	111,950	102,822	99,838	102,253	105,931
UK	137,713	160,715	174,556	185,571	152,012	126,266	139,886	138,268	151,226	150,131	169,328	198,942
Australia	121,384	132,036	134,619	148,387	147,680	159,145	210,965	224,878	240,677	220,343	220,594	239,968
Iceland	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	72,842	72,003	52,278
Japan	227,165	219,583	203,191	186,853	204,723	239,527	269,959	286,139	312,713	244,794	231,274	253,220
Norway	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	131,236	n/a	n/a	116,653
Russia	n/a	n/a	n/a	n/a	51,520	26,561	31,315	33,492	37,367	38,761	34,185	24,396
Turkey	12,555	23,393	24,899	25,247	25,695	20,281	26,643	23,310	23,932	23,782	21,509	22,530

Source: European Mortgage Federation National Experts, National Central Banks, Japan Housing Finance Agency

Notes:
- Please note that the conversion to euros is based on the yearly average bilateral exchange rate (provided by the ECB).
- Please note that due to the conversion to euros, changes observed for countries not belonging to the euro area may be due to exchange rate fluctuations. To obtain values in national currency, please refer to the exchange rates used, on Table 30 of this publication.
- For Denmark the statistics includes only owner occupation from mortgage banks.
- For Germany the statistics contain average amount of a mortgage for the purchase of a second hand single family house.
- For the UK the figure represents the median advance mate to home-owner for house purchase activity.

6. Total Outstanding Non-Residential Mortgage Loans

Total Amount, End of the Year, EUR million

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Czech Republic	4,841	6,331	8,269	11,275	13,682	12,099	12,356	12,010	12,023	12,035	13,544	14,435
Denmark	81,591	88,228	95,633	106,379	118,637	127,141	130,405	133,754	138,160	145,158	151,264	143,426
Estonia	1,073	1,812	3,109	3,943	4,111	3,937	3,658	3,395	3,371	3,223	3,250	3,339
Finland	18,472	20,555	22,647	24,406	25,784	26,528	27,526	27,770	28,452	28,309	29,045	30,026
Germany	258,045	258,569	256,332	260,008	254,862	255,721	251,450	259,134	254,014	250,631	247,345	250,310
Greece	4,040	4,190	4,194	4,774	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Hungary	2,633	2,949	3,609	4,744	7,401	7,838	8,380	7,051	6,805	6,112	n/a	n/a
Ireland	n/a	n/a	n/a	n/a	n/a	n/a	31,495	28,808	28,034	26,605	24,079	21,482
Italy	50,782	53,888	63,752	69,150	66,240	71,311	74,303	73,234	93,216	87,260	79,915	87,869
Latvia	668	1,504	2,917	3,770	4,600	4,370	3,658	3,144	2,582	2,298	2,054	1,898
Netherlands	23,204	24,317	25,065	23,440	23,772	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Poland	3,485	4,322	5,627	9,765	11,582	12,192	12,125	11,722	13,693	13,116	13,055	13,952
Romania	n/a	n/a	n/a	n/a	n/a	n/a	18,363	19,135	18,937	18,368	17,697	16,839
Spain	197,801	263,763	339,620	400,765	414,512	420,669	396,719	339,739	235,151	159,599	134,581	129,690
Australia	174,141	214,867	233,954	257,177	219,891	275,377	352,771	377,303	402,616	360,129	428,357	435,632
Iceland	14,657	16,846	18,153	22,416	23,042	21,925	22,958	13,660	11,430	11,332	11,092	n/a
Japan	n/a	n/a	n/a	n/a	n/a	188,721	239,740	259,354	230,187	182,063	182,876	208,277
Norway	n/a	n/a	n/a	n/a	n/a	9,100	11,943	12,391	14,195	13,626	13,550	13,027
Russia	n/a	2,149	3,353	4,066	4,841	3,936	4,068	3,492	3,119	2,573	1,791	819
USA	1,227,443	1,622,362	1,662,263	1,668,705	1,950,780	1,827,364	1,886,020	1,881,985	1,823,101	1,787,978	2,118,030	2,491,228

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

1) Time series breaks:
- Latvia: 2003 (due to a change in the statistical source)

2) The series has been revised for at least two years in:
- Czech Republic
- Denmark
- Poland
- Norway

3) Notes:
- For further details on the methodologies, please see "Annex : Explanatory Note on data".
- n/a : figure not available.
- Please note that the conversion to euros is based on the bilateral exchange rate at the end of the period (provided by the ECB and Bloomberg).
- Please note that due to the conversion to euros, changes observed for countries not belonging to the euro area may be due to exchange rate fluctuations. To obtain values in national currency, please refer to the exchange rates used, on Table 30 of this publication.

7. Total Outstanding Residential Loans to GDP Ratio

%

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Austria	19.9	21.7	23.2	23.3	24.7	25.7	27.2	27.2	27.2	27.1	27.5	28.7
Belgium	29.9	32.5	34.9	36.7	38.7	43.5	44.3	45.4	47.4	48.3	49.3	50.7
Bulgaria	n/a	n/a	n/a	8.5	10.2	10.2	9.8	8.8	8.6	8.4	8.2	8.0
Croatia	8.5	10.5	12.9	14.7	15.6	17.0	18.3	18.7	18.9	18.5	18.3	17.6
Cyprus	10.7	27.6	33.6	39.7	45.2	56.2	62.4	64.2	65.1	65.6	67.0	66.8
Czech Republic	4.0	5.3	7.0	9.1	9.2	14.1	15.4	15.6	17.3	17.3	18.3	19.2
Denmark	66.6	73.8	78.8	83.8	86.0	94.1	92.8	93.0	91.2	90.8	90.0	89.7
Estonia	15.4	23.2	31.6	34.6	37.6	43.2	40.6	35.3	32.5	31.0	30.4	30.9
Finland	26.2	29.5	32.0	33.3	34.9	39.7	41.0	41.5	43.2	43.4	43.7	44.4
France	25.3	28.1	30.9	33.2	35.1	37.7	39.8	40.9	41.7	42.7	43.1	43.6
Germany	51.0	50.5	49.5	46.0	44.7	46.6	44.7	43.1	43.0	42.9	42.4	42.3
Greece	17.6	22.8	26.2	29.8	32.1	33.9	35.6	37.9	39.0	39.4	39.1	38.4
Hungary	9.3	11.7	15.0	17.1	20.8	24.0	25.1	21.8	20.2	18.3	16.4	13.7
Ireland	49.7	58.5	67.0	71.3	79.3	87.3	62.8	58.5	56.4	53.5	48.5	41.5
Italy	12.8	14.6	15.8	16.5	16.2	17.8	21.9	22.5	22.7	22.5	22.3	22.1
Latvia	11.3	18.2	26.9	29.6	29.6	36.7	36.9	29.7	24.3	22.2	19.9	18.5
Lithuania	6.9	10.8	12.4	16.7	18.5	22.4	21.3	18.8	17.4	16.7	16.3	16.4
Luxembourg	33.7	35.6	36.0	39.9	42.3	47.1	47.0	48.0	49.8	50.3	51.2	51.0
Malta	25.8	29.6	32.9	35.0	36.2	40.0	40.4	42.1	42.8	42.8	44.4	44.3
Netherlands	82.7	88.0	88.3	89.7	92.6	99.7	100.1	100.6	101.2	96.9	95.7	94.4
Poland	4.3	5.3	7.5	10.4	12.7	16.6	18.7	18.9	20.4	20.5	20.1	20.6
Portugal	46.7	50.1	55.3	57.6	58.8	63.1	63.6	64.7	65.6	62.6	59.1	54.9
Romania	n/a	1.0	2.2	3.4	4.0	4.7	5.3	5.7	6.6	6.5	6.7	7.2
Slovakia	6.3	7.8	11.5	12.1	13.0	14.8	16.1	17.5	18.9	20.7	23.0	25.3
Slovenia	2.9	4.7	6.2	7.6	9.0	10.9	13.4	14.0	14.6	14.8	14.3	14.3
Spain	44.7	51.1	56.7	59.8	60.4	62.9	62.9	62.3	61.5	59.4	56.3	52.1
Sweden	53.3	56.4	61.3	61.1	58.5	77.0	79.2	76.2	79.1	78.1	78.8	84.3
UK	63.3	68.3	73.4	70.5	63.4	78.7	76.0	76.7	72.7	72.4	71.3	67.6
Euro area 19	36.4	38.9	40.7	41.2	41.9	44.6	45.0	44.7	45.0	44.6	44.1	43.5
EU 28	40.9	43.7	46.2	46.0	44.6	49.5	49.6	49.4	49.5	49.0	48.7	48.1
Australia	39.0	42.1	42.6	45.5	37.4	60.4	62.3	59.7	51.9	45.3	51.4	51.8
Iceland	62.8	73.0	68.4	72.4	56.6	76.6	86.6	79.5	73.6	77.2	71.5	64.8
Japan	35.4	36.8	34.6	36.3	45.9	39.7	42.5	45.3	36.9	36.8	39.5	41.3
Norway	53.2	54.6	55.0	59.9	50.1	67.8	64.8	63.5	65.7	62.4	64.0	69.3
Russia	n/a	0.3	0.9	1.8	2.3	2.7	2.4	2.4	2.9	3.5	3.2	4.1
Turkey	0.1	0.3	1.5	2.7	2.8	3.7	3.7	4.3	5.1	4.6	6.4	6.1
USA	65.9	80.8	76.8	76.8	86.2	79.2	75.0	76.7	65.5	62.4	68.6	62.9

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

1) Time series breaks:

- See Table 1

2) The series has been revised for at least two years in:

- Belgium
- Bulgaria
- Cyprus
- Czech Republic
- Denmark
- Estonia
- Greece
- Hungary
- Ireland
- Latvia
- Malta
- Poland
- Slovakia
- Spain
- UK
- Iceland
- Norway
- Russia
- Turkey
- USA

3) Notes:

- For further details on the methodologies, please see "Annex : Explanatory Note on data".
- n/a : figure not available.
- Please note that the GDP at current prices has been taken in euros directly from Eurostat.
- See Tables 1 and 27 for further information on the data used.

8. Total Outstanding Residential Loans to Disposable Income of Households Ratio

%

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Austria	31.8	34.0	36.6	37.3	39.6	40.3	43.6	44.4	43.7	44.3	44.7	47.2
Belgium	50.6	55.2	59.1	62.3	63.9	69.6	73.6	76.8	79.9	82.1	84.6	87.7
Bulgaria	n/a	n/a	n/a	15.7	17.5	17.4	16.8	15.1	14.6	13.9	n/a	n/a
Croatia	12.9	16.4	20.8	24.4	25.7	26.3	28.0	28.2	28.2	28.2	27.5	26.7
Cyprus	16.2	41.8	50.4	59.1	64.3	81.2	90.6	93.8	97.2	91.1	103.9	101.3
Czech Republic	7.3	10.5	13.8	17.9	19.2	23.8	28.9	29.2	30.6	30.6	32.6	37.7
Denmark	141.2	158.2	171.1	185.7	191.8	195.5	190.6	188.9	186.2	187.3	185.5	174.7
Estonia	29.0	44.7	61.5	67.6	65.9	71.4	70.4	63.4	61.0	56.5	56.5	54.1
Finland	48.0	54.7	59.8	63.6	65.4	67.7	69.5	71.0	72.8	72.4	73.1	74.0
France	39.1	43.7	48.1	51.6	54.2	56.4	59.9	62.3	63.9	65.7	66.4	67.5
Germany	75.5	74.5	74.2	71.1	68.7	69.4	68.0	66.7	66.3	66.4	66.3	66.7
Greece	25.9	32.2	37.8	43.0	45.7	46.5	50.4	53.6	55.9	57.9	58.6	57.9
Hungary	15.8	19.7	25.8	30.2	37.5	42.2	45.0	37.8	34.7	31.8	29.5	24.5
Ireland	107.4	125.4	145.7	152.5	152.1	162.6	120.9	120.1	116.9	114.4	106.4	94.6
Italy	18.5	21.2	23.0	24.0	23.5	25.5	32.1	32.7	33.4	32.9	32.6	32.6
Latvia	18.8	29.0	42.5	49.3	45.7	53.3	54.9	49.9	42.3	38.0	33.6	30.2
Lithuania	9.8	16.1	18.4	27.6	28.9	31.3	30.8	28.7	27.5	26.2	26.1	n/a
Luxembourg	n/a	n/a	95.2	109.0	108.9	113.9	118.1	123.9	127.4	139.8	145.4	149.9
Netherlands	157.5	172.6	178.2	183.9	194.9	202.6	207.2	207.2	209.0	200.0	195.9	192.6
Poland	6.4	8.3	11.7	16.9	20.6	26.4	29.8	31.1	33.4	33.5	33.3	34.6
Portugal	66.4	70.9	79.1	83.0	83.0	87.7	88.3	91.1	91.7	88.6	84.7	80.1
Romania	n/a	1.5	3.7	5.5	6.6	7.8	8.8	9.9	11.9	9.2	12.6	13.5
Slovakia	7.9	10.2	15.9	18.5	21.2	23.2	25.6	28.6	31.3	33.9	37.3	41.1
Slovenia	4.7	7.5	10.1	12.7	14.9	17.1	20.9	21.9	22.8	23.3	23.2	23.8
Spain	69.0	80.4	91.4	99.4	98.3	97.1	98.8	96.1	95.4	91.9	87.2	81.8
Sweden	113.9	120.8	132.7	131.5	123.0	149.6	159.5	150.8	151.5	149.5	152.3	166.4
UK	101.7	111.0	120.3	115.4	102.5	118.5	112.5	115.8	107.9	110.0	110.9	104.2
Euro area 19	55.9	60.0	63.6	65.4	65.9	68.0	69.8	70.0	70.6	70.1	69.8	n/a
EU 28	60.4	68.7	73.5	74.3	71.4	76.0	77.4	77.8	77.8	77.4	77.9	n/a
Norway	111.0	116.1	135.9	145.5	125.4	150.4	147.4	147.7	154.0	142.9	143.0	147.3
USA	88.0	110.0	103.6	103.7	113.0	102.1	97.6	98.6	83.4	81.9	89.8	n/a

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

1) Time series breaks:
- See Table 1

2) The series has been revised for at least two years in:
- See Table 1

3) Notes:
- For further details on the methodologies, please see “Annex : Explanatory Note on data”.
- n/a : figure not available.
- Please note that the disposable income of households at current prices has been taken in euros directly from AMECO.

9. Total Outstanding Residential Loans per Capita

Population over 18 years, EUR

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Austria	7,369	8,323	9,296	9,851	10,707	10,845	11,749	12,255	12,506	12,602	12,930	13,679
Belgium	10,866	12,215	13,695	15,051	16,172	17,752	18,749	19,648	20,787	21,322	22,118	23,147
Bulgaria	n/a	n/a	n/a	444	607	608	597	581	581	574	577	585
Croatia	822	1,101	1,495	1,855	2,146	2,190	2,361	2,397	2,381	2,318	2,266	2,234
Cyprus	2,747	7,471	9,595	11,959	14,205	16,781	18,604	18,954	18,518	17,158	16,962	17,180
Czech Republic	459	694	1,040	1,494	1,741	2,442	2,800	2,958	3,213	3,137	3,317	3,703
Denmark	32,099	37,354	42,180	46,228	48,651	50,462	51,869	52,589	52,702	52,546	52,703	53,184
Estonia	1,374	2,408	3,937	5,179	5,710	5,614	5,490	5,418	5,406	5,477	5,656	5,916
Finland	10,105	11,738	13,321	14,884	16,086	16,969	18,003	19,059	19,990	20,311	20,519	20,917
France	9,010	10,259	11,683	13,091	14,083	14,602	15,812	16,677	17,130	17,691	17,998	18,400
Germany	17,147	17,180	17,440	16,978	16,783	16,788	16,865	17,012	17,266	17,555	18,280	18,784
Greece	3,779	5,010	6,271	7,578	8,448	8,746	8,745	8,553	8,173	7,840	7,710	7,545
Hungary	955	1,297	1,679	2,131	2,737	2,747	3,012	2,681	2,453	2,269	2,106	1,828
Ireland	25,792	32,204	39,076	42,763	44,098	43,317	30,442	29,665	28,835	28,111	26,830	26,030
Italy	3,879	4,524	5,076	5,499	5,433	5,727	7,168	7,454	7,401	7,277	7,094	7,137
Latvia	724	1,379	2,577	3,731	4,014	3,872	3,758	3,494	3,150	3,019	2,841	2,750
Lithuania	477	863	1,154	1,878	2,359	2,355	2,356	2,368	2,375	2,404	2,466	2,542
Luxembourg	26,364	29,461	32,851	39,460	42,102	44,094	47,089	50,225	52,227	54,839	57,208	59,127
Malta	4,049	4,840	5,563	6,275	6,820	7,445	7,964	8,578	9,061	9,495	10,260	11,024
Netherlands	34,248	37,787	40,083	43,013	46,046	47,500	48,411	49,150	49,286	47,478	47,390	47,401
Poland	294	438	676	1,074	1,521	1,707	2,183	2,298	2,530	2,602	2,656	2,832
Portugal	8,427	9,380	10,817	11,854	12,289	12,892	13,292	13,180	12,791	12,382	11,951	11,523
Romania	n/a	45	128	247	341	342	407	459	534	575	623	713
Slovakia	526	731	1,229	1,588	1,988	2,192	2,498	2,824	3,124	3,477	3,937	4,460
Slovenia	491	836	1,186	1,607	2,041	2,333	2,851	3,039	3,089	3,117	3,140	3,244
Spain	10,983	13,329	15,761	17,519	17,922	17,841	17,796	17,388	16,680	15,977	15,371	14,771
Sweden	23,274	24,964	28,848	30,348	28,438	32,520	39,391	41,152	44,281	44,624	44,089	48,280
UK	26,182	29,344	33,076	32,979	25,794	27,569	28,347	29,025	30,019	29,464	31,810	34,043
Euro area 19	11,318	12,422	13,597	14,449	14,939	15,252	15,736	16,022	16,111	16,084	16,192	16,379
EU 28	11,469	12,715	14,115	14,830	14,374	14,931	15,568	15,915	16,197	16,133	16,513	17,047
Iceland	32,635	45,802	42,129	49,309	28,677	29,573	36,503	35,185	33,931	36,923	37,320	38,890
Norway	32,356	38,524	42,678	48,838	43,239	50,793	55,904	59,715	67,412	62,481	60,540	60,047
Russia	n/a	n/a	59	147	224	202	239	304	n/a	n/a	n/a	n/a
Turkey	6	27	132	n/a	290	334	407	472	598	543	718	900
USA	29,641	38,329	37,724	35,714	37,493	35,186	35,985	35,959	34,254	32,266	36,511	41,079

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

1) Time series breaks:

2) The series has been revised for at least two years in:

- Czech Republic
- Denmark
- Finland
- Greece
- Ireland
- UK
- Iceland
- Norway
- Turkey
- USA

3) Notes:

- For further details on the methodologies, please see "Annex: Explanatory Note on data".
- n/a : figure not available.
- Please note that the population concerns residents who are more than 18 years old.

B. The Housing Market

10. Owner Occupation Rate

%

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Austria	n/a	n/a	n/a	59.2	57.9	57.6	57.4	52.4	57.5	57.3	57.2	55.7
Belgium	72.2	72.2	73.7	72.9	73.1	72.7	71.6	71.8	72.4	72.3	72.0	n/a
Bulgaria	n/a	85.4	85.4	87.6	87.1	86.8	86.9	87.2	87.4	85.7	84.3	82.3
Croatia	n/a	n/a	n/a	n/a	n/a	n/a	88.2	90.1	89.6	88.5	89.7	n/a
Cyprus	n/a	n/a	n/a	74.1	72.3	74.1	73.1	73.5	73.2	74.0	72.9	n/a
Czech Republic	n/a	73.5	74.1	74.5	75.8	76.6	78.7	80.1	80.4	80.1	78.9	n/a
Denmark	67.2	66.6	67.4	67.1	66.5	66.3	66.6	68.7	66.0	64.5	63.3	62.7
Estonia	n/a	n/a	87.8	86.8	88.9	87.1	85.5	83.5	82.2	81.1	81.5	n/a
Finland	71.4	71.8	73.3	73.6	73.2	74.1	74.3	74.1	73.9	73.6	73.2	72.7
France	n/a	61.8	62.5	60.5	62.1	63.0	62.0	63.1	63.7	64.3	65	n/a
Germany	n/a	53.3	n/a	n/a	n/a	n/a	53.2	53.4	53.3	52.6	52.5	n/a
Greece	n/a	n/a	n/a	75.6	76.7	76.4	77.2	75.9	75.9	75.8	74.0	n/a
Hungary	n/a	88.1	87.6	88.5	89.0	89.8	89.7	89.3	89.8	88.7	88.2	86.3
Ireland	81.8	78.2	78.0	78.1	77.3	73.7	73.3	70.2	69.6	69.9	n/a	n/a
Italy	72.2	72.8	72.9	73.2	72.8	72.8	72.6	73.2	74.2	73.3	73.1	n/a
Latvia	n/a	n/a	n/a	86.0	86.0	87.2	84.3	82.8	81.5	81.2	80.9	80.2
Lithuania	n/a	88.3	91.8	89.4	92.2	91.5	93.6	92.2	91.9	92.2	89.9	n/a
Luxembourg	n/a	n/a	n/a	74.5	73.8	70.4	68.1	68.2	70.8	73.0	72.5	n/a
Malta	n/a	79.6	80.1	79.8	79.9	78.5	79.5	80.2	81.8	80.3	80	n/a
Netherlands	n/a	63.9	65.4	66.6	67.5	68.4	67.2	67.1	67.5	67.1	67	67.8
Poland	n/a	n/a	n/a	62.5	66.0	68.7	81.3	82.1	82.4	83.8	83.5	n/a
Portugal	74.6	74.4	75.5	74.2	74.5	74.6	74.9	75.0	74.5	74.2	74.9	n/a
Romania	n/a	n/a	n/a	96.1	96.5	96.5	97.5	96.6	96.6	95.6	96.1	n/a
Slovakia	n/a	82.1	88.9	89.1	89.3	89.5	90.0	90.2	90.4	90.5	90.3	n/a
Slovenia	n/a	83.2	84.5	81.3	81.3	81.3	78.1	77.5	76.2	76.6	76.7	n/a
Spain	n/a	n/a	n/a	80.6	80.2	79.6	79.8	79.7	78.9	77.7	78.8	78.2
Sweden	66.6	68.1	68.8	69.5	68.8	69.7	70.8	69.7	70.1	69.6	69.3	n/a
UK	n/a	70.0	71.4	73.3	72.5	69.9	70.0	67.9	66.7	64.6	64.8	n/a
Euro area 19	n/a	63.9	n/a	71.3	71.7	71.8	66.7	66.9	67.2	66.9	66.9	n/a
EU 28	n/a	n/a	n/a	n/a	n/a	n/a	70.6	70.5	70.6	70.1	70.1	n/a
Iceland	85.3	86.8	86.2	86.4	85.8	84.2	81.3	77.9	77.3	77.5	78.2	77.8
Norway	82.9	82.7	83.7	83.8	86.1	85.4	82.9	84.0	84.8	83.5	84.4	82.8
Turkey	n/a	n/a	60.7	60.8	60.9	60.8	n/a	59.6	60.7	n/a	n/a	n/a

Source: Eurostat

1) Time series breaks:
- None

2) The series has been revised for at least two years in:
- Denmark
- Hungary
- Italy

3) Notes:
- For further details on the methodologies, please see "Annex: Explanatory Note on data".
- n/a: figure not available.
- At the time of writing, the majority of Eurostat's 2015 owner occupation rates were not yet available.

11. Building Permits
Number issued

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Austria	43,500	44,059	47,858	46,951	47,097	47,511	50,973	58,108	52,208	59,385	61,284	64,623
Belgium	52,230	59,384	61,083	53,923	52,651	45,456	49,872	44,352	46,811	49,141	54,903	46,406
Bulgaria	n/a	n/a	53,049	64,185	49,407	20,166	12,832	10,973	10,616	12,278	15,848	17,264
Croatia	20,358	23,484	25,517	24,877	24,585	17,018	13,378	13,470	9,742	7,744	7,743	6,950
Cyprus	8,252	9,098	9,794	9,521	8,896	8,950	8,777	7,506	7,172	5,341	4,933	5,014
Czech Republic	51,464	47,974	49,777	47,298	47,389	41,954	39,158	39,656	34,006	29,475	28,127	28,886
Denmark	29,776	35,878	35,631	23,144	16,267	8,976	17,057	17,308	12,279	11,441	15,559	20,474
Estonia	9,447	9,151	12,863	8,925	5,468	2,081	2,581	2,830	3,035	3,049	3,941	5,588
Finland	33,640	36,773	35,418	31,902	25,721	26,697	32,836	34,554	31,752	26,583	29,156	30415
France	500,500	551,700	602,300	571,300	476,200	380,200	476,500	517,600	480,100	421,400	376,200	387,100
Germany	268,123	240,468	247,541	182,336	174,595	177,939	187,667	228,311	241,090	272,433	285,079	313,296
Greece	43,447	56,342	45,406	41,790	34,021	27,447	23,380	15,114	9,066	5,675	4,620	4,618
Hungary	57,459	51,490	44,826	44,276	43,862	28,400	17,353	12,488	10,600	7,536	9,633	12,515
Ireland	110,958	108,178	85,820	92,130	75,042	43,752	20,022	12,522	6,741	7,624	7,861	13,595
Italy	268,385	278,602	261,455	250,271	191,783	141,587	119,409	112,391	82,058	53,404	50,112	n/a
Latvia	4,312	5,298	6,461	5,877	3,749	2,244	1,844	2,022	2,262	2,369	2,295	2,193
Lithuania	4,155	5,500	7,482	8,869	8,189	5,994	5,876	4,951	5,768	7,118	6,868	7,152
Luxembourg	3,919	4,692	4,411	4,934	4,017	3,693	3,892	4,323	4,305	3,761	6,360	4,558
Malta	6,707	9,081	10,409	11,343	6,836	5,298	4,444	3,955	3,064	2,705	2,937	3,947
Netherlands	76,180	83,273	96,447	87,918	87,198	72,646	61,028	55,804	37,370	26,184	39,365	53,533
Poland	105,831	115,862	160,545	236,731	223,372	168,440	165,116	184,146	165,282	138,837	156,878	188,798
Portugal	77,115	73,922	71,921	65,828	45,981	27,298	25,002	17,335	11,251	7,286	6,782	8,219
Romania	n/a	43,542	51,065	56,618	61,092	48,833	42,189	39,424	37,852	37,776	37,672	39,112
Slovakia	16,586	19,796	20,592	18,116	28,321	20,325	16,211	12,740	n/a	n/a	n/a	n/a
Slovenia	6,000	6,000	8,000	9,000	8,000	5,209	4,225	3,285	2,700	2,675	2,197	2,179
Spain	543,518	603,633	734,978	633,430	267,876	130,418	91,509	75,894	57,486	31,213	33,643	36,059
Sweden	28,374	34,273	45,193	28,753	24,996	21,622	28,843	29,582	26,045	34,265	42,216	52,340
Australia	171,536	157,853	155,440	160,796	150,002	149,995	181,960	153,755	156,634	181,248	208,556	238,289
Norway	n/a	n/a	n/a	32,402	25,917	19,576	21,278	27,735	30,142	30,252	27,130	30,927
Turkey	262130	424346	491230	478107	389468	412758	701,297	558,025	664,533	730,149	934,805	787,635
USA	2,070,100	2,155,300	1,838,900	1,398,400	905,400	583,000	604,600	624,100	829,700	990,800	1,052,124	1,182,582

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

1) Time series breaks:
- Austria: 2005 (source was changed from 2005 onwards)
- Denmark: 2012 (source was changed from 2012 onwards)

2) The series has been revised for at least two years in:
- Austria
- Belgium
- Denmark
- Finland
- France
- Ireland
- Sweden
- Turkey

3) Notes:
- For further details on the methodologies, please see "Annex: Explanatory Note on data".
- n/a: figure not available.
- For Ireland: new data series taking into account the number of dwelling units.
- For Italy: 2014 estimate.

12. Housing Starts

Number of projects started per year

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Belgium	48,164	54,415	57,907	54,450	50,380	44,929	47,569	41,574	44,818	44,696	51,151	40,358
Bulgaria	n/a	n/a	n/a	n/a	n/a	n/a	8,009	7,096	6,789	7,669	8,355	12,308
Czech Republic	39,037	40,381	43,747	43,796	43,531	37,319	28,135	27,535	23,853	22,108	24,351	26,378
Denmark	28,665	34,058	35,792	25,727	17,096	10,165	15,591	16,836	14,118	10,780	14,579	12,147
Estonia	n/a	n/a	n/a	n/a	n/a	n/a	n/a	1,645	2,057	3,007	4,620	4,663
Finland	34,458	35,194	35,578	32,044	23,360	23,467	33,641	32,981	29,894	27,683	25,553	32,007
France	414,400	465,000	493,900	488,800	399,200	346,500	415,000	432,300	388,400	377,100	343,600	350,800
Greece	122,148	195,207	125,387	103,865	79,601	61,490	52,344	29,974	18,817	11,748	9,619	9,264
Hungary	42,437	35,545	29,208	27,396	22,314	8,985	n/a	n/a	n/a	n/a	n/a	n/a
Ireland	77,691	77,709	75,602	48,876	22,903	8,599	6,391	4,365	4,042	4,708	7,717	8,088
Italy	301,558	310,978	295,201	281,740	219,143	163,427	131,184	123,499	n/a	n/a	n/a	n/a
Malta	6,707	9,081	10,409	11,343	n/a	n/a	n/a	3,955	n/a	n/a	n/a	n/a
Poland	97,000	102,038	137,962	185,117	174,686	142,901	158,064	162,200	141,798	127,392	148,122	168,403
Romania	37,798	49,795	66,817	87,643	143,139	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Slovakia	16,586	19,796	20,592	18,116	28,321	20,325	16,211	12,740	n/a	n/a	n/a	n/a
Slovenia	6,000	8,000	9,000	11,000	7,447	6,019	4,831	3,844	3,066	3,142	2,762	2,749
Spain	687,051	729,652	865,561	651,427	264,795	111,140	91,662	78,286	44,162	34,288	34,873	49,695
Sweden	27,468	31,987	45,628	27,947	21,467	17,753	27,441	26,796	21,381	30,684	36,544	44,453
UK	227,990	223,900	223,990	233,650	141,630	114,100	138,850	138,150	126,110	149,210	164,630	n/a
Australia	168,793	154,621	154,323	154,705	149,292	141,093	176,033	155,385	152,823	169,773	202,502	225,715
Iceland	2,751	4,393	3,746	4,446	3,172	192	321	142	466	769	582	1,612
Japan	1,193,038	1,249,366	1,285,246	1,035,598	1,039,214	775,277	819,020	841,246	893,002	987,254	880,470	920,537
Norway	29,399	30,706	32,559	31,893	25,083	19,021	22,226	28,225	29,202	27,634	25,404	30,150
USA	1,956,000	2,068,000	1,801,000	1,355,000	906,000	554,000	587,000	609,000	780,000	925,000	1,003,000	1,112,000

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

1) Time series breaks:
- Denmark: 2012 (source was changed from 2012 onwards)

2) The series has been revised for at least two years in:
- Belgium
- Denmark
- Finland
- France
- Sweden
- Norway

3) Notes:
- For further details on the methodologies, please see "Annex: Explanatory Note on data".
- n/a: figure not available.

13. Housing Completions

Number of projects completed per year

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Austria	n/a	34,259	37,515	43,028	39,859	38,063	n/a	39,278	43,880	50,957	50,738	n/a
Bulgaria	8,267	12,059	13,270	18,864	20,924	22,058	15,771	13,953	9,970	9,250	9,993	7,806
Croatia	9,069	8,449	8,657	8,480	8,148	6,733	6,108	5,468	4,948	4,566	3,841	n/a
Cyprus	11,013	16,416	16,647	16,501	18,195	16,644	13,434	9,091	6,565	3,833	n/a	n/a
Czech Republic	32,268	32,863	30,190	41,649	38,380	38,473	36,442	28,630	29,467	25,238	23,954	25,095
Denmark	26,350	27,399	29,090	31,588	27,209	19,090	11,882	12,762	16,575	15,107	14,103	13,711
Estonia	3,105	3,928	5,068	7,073	5,300	3,026	2,324	1,918	1,990	2,079	2,756	3,969
Finland	32,392	32,701	33,082	34,650	30,340	21,362	24,408	32,383	32,365	28,815	28,991	28,431
France	345,176	371,653	410,579	458,039	470,976	395,103	347,166	381,620	399,056	404,355	413,627	399,564
Germany	278,008	242,316	249,436	210,739	175,927	158,987	159,832	183,110	200,466	214,817	245,325	247,724
Greece	96,370	166,996	99,882	80,760	59,964	43,780	36,172	18,415	12,096	7,903	6,635	6,221
Hungary	43,913	41,084	33,864	36,159	36,075	31,994	20,823	12,655	10,560	7,293	8,382	7,612
Ireland	76,954	80,957	93,419	78,027	51,724	26,420	14,602	10,480	8,488	8,301	11,016	12,666
Italy	301,558	310,978	295,201	281,740	219,143	163,427	131,184	123,499	n/a	n/a	n/a	n/a
Latvia	2,821	3,812	5,865	9,319	8,084	4,187	1,918	2,662	2,087	2,201	2,631	2,242
Lithuania	6,804	5,900	7,286	9,315	11,829	9,400	3,667	3,733	3,198	3,467	4,456	5,707
Luxembourg	2,155	1,979	2,266	3,023	4,444	3,740	2,824	2,162	2,304	2,642	n/a	n/a
Netherlands	65,314	67,016	72,382	80,193	78,882	82,932	55,999	57,703	48,668	49,311	44,041	48,381
Poland	108,123	114,060	115,187	133,778	165,192	160,019	135,818	131,148	152,904	145,388	143,235	147,821
Portugal	74,261	76,123	68,764	67,463	59,256	47,915	35,442	26,096	27,746	19,060	10,319	7,394
Romania	30,127	32,868	39,638	47,299	67,255	62,520	48,862	45,419	44,016	43,587	44,984	47,017
Slovakia	12,592	14,863	14,444	16,473	17,184	18,834	17,076	14,608	n/a	n/a	n/a	n/a
Slovenia	7,000	8,000	8,000	8,000	9,968	8,530	6,355	5,468	4,307	3,484	3,163	2,776
Spain	398,267	429,017	488,523	552,991	531,127	315,048	198,618	115,797	114,991	64,817	46,822	45,152
Sweden	25,283	23,068	29,832	30,527	32,021	22,821	19,500	20,064	25,993	29,225	29,164	34,603
UK	203,490	209,570	212,820	226,420	188,250	158,370	136,590	140,600	141,530	135,350	144,970	n/a
Iceland	2,355	3,106	3,294	3,348	2,978	893	1,148	565	1,076	934	1,149	1,120
Norway	22,809	28,853	27,744	31,056	28,640	21,705	18,090	20,046	26,275	28,456	28,072	28,265
Russia	477,000	515,000	609,000	722,000	768,000	702,000	717,000	786,000	838,000	929,000	1,124,000	1,195,000
Turkey	100,241	166,646	218,408	246,524	263,402	329,861	306,823	450,033	461,446	613,286	673,606	651,477
USA	1,842,000	1,932,000	1,979,000	1,502,000	1,120,000	794,000	651,000	585,000	649,000	764,000	884,000	968,000

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

1) Time series breaks:
- Denmark: 2012 (source was changed from 2012 onwards)
- Netherlands: 2012 (due to a change in methodology)

2) The series has been revised for at least two years in:
- Denmark
- Finland
- France
- Portugal
- Romania
- Sweden
- UK
- Norway
- Turkey

3) Notes:
- For further details on the methodologies, please see “Annex: Explanatory Note on data”.
- n/a: figure not available.

14. Real Gross Fixed Investment in Housing

Annual % change

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Austria	0.8	1.4	0.4	1.9	0.8	-1.6	0.7	2.9	-1.3	-0.1	-1.2	-1.8
Belgium	7.5	10.2	6.9	2.9	-1.4	-8.6	2.6	-2.4	0.2	-3.5	4.6	n/a
Bulgaria	2.6	57.6	97.4	-7.2	22.4	-20.4	-40.8	-14.2	-26.7	-4.0	-3.3	2.5
Cyprus	14.0	13.4	18.3	8.1	-0.3	-19.6	-16.6	-16.5	-17.8	-24.1	-20.2	13.2
Czech Republic	4.7	6.4	8.0	26.2	-1.5	-4.6	10.3	-5.9	2.7	-7.7	10.2	8.4
Denmark	12.1	16.7	11.4	-5.5	-16.7	-20.4	-8.9	15.8	-5.5	-1.1	3.1	-1.6
Estonia	28.3	39.6	43.6	-3.2	-29.2	-35.9	-9.4	9.9	13.1	8.6	2.9	4.1
Finland	11.2	5.0	3.8	-0.4	-10.6	-13.9	24.1	5.3	-3.5	-5.3	-6.5	-2.4
France	3.0	5.0	5.4	4.0	-3.0	-9.2	2.1	0.9	-2.2	-0.4	-2.8	-1.0
Germany	-3.4	-4.3	6.1	-1.8	-3.2	-3.4	4.3	10.0	3.4	-0.7	3.3	1.6
Greece	17.0	-9.2	17.7	14.4	-23.9	-19.6	-26.2	-14.6	-37.9	-30.7	-52.5	-23.1
Hungary	11.7	-12.9	-16.6	6.6	6.2	-3.4	-24.7	-27.4	-9.9	-27.0	16.8	n/a
Ireland	10.8	16.8	3.8	-8.0	-16.7	-37.6	-32.9	-18.5	-20.3	3.3	15.2	6.4
Italy	3.1	5.5	4.9	1.4	-1.7	-9.2	0.0	-6.9	-7.5	-4.4	-2.9	0.2
Latvia	62.0	17.8	34.4	41.4	-11.9	-52.4	-28.9	1.3	13.8	-1.3	-0.7	-20.7
Lithuania	66.6	0	21.2	14.9	24.3	-7.2	-29.7	1.0	2.3	11.5	16.9	13.6
Luxembourg	8.5	-3.1	24.9	40.0	8.9	-21.9	-16.0	0.6	19.3	4.6	15.8	-7.7
Malta	3.3	-0.3	12.4	12.3	-21.4	-26.6	-16.1	0.6	-9.7	-3.2	-1.2	36.3
Netherlands	4.6	5.5	5.8	5.1	0.4	-14.9	-16.0	-4.4	-12.9	-12.2	6.1	27.4
Poland	4.5	9.7	9.6	13.1	6.2	-2.3	-4.3	2.7	7.0	0.9	1.5	8.3
Portugal	-2.4	0.4	-6.3	-4.8	-13.1	-14.3	-10.4	-11.5	-7.7	-14.3	-8.6	3.1
Romania	-83.5	35.7	-6.3	50.6	40.9	-14.2	2.2	-10.2	5.1	-11.2	n/a	n/a
Slovakia	-7.3	7.2	-12.3	13.8	2.0	14.0	-10.3	-3.6	0.1	17.8	-1.8	-3.5
Slovenia	9.4	15.7	10.3	14.1	12.4	-20.5	-20.4	-12.4	-12.5	-7.6	-5.3	-3.9
Spain	4.9	6.5	6.7	1.3	-9.2	-20.3	-11.6	-13.3	-5.4	-7.2	-1.4	2.4
Sweden	13.0	9.9	14.5	6.8	-13.2	-19.0	12.7	8.0	-11.8	0.9	19.8	16.6
UK	3.3	-2.1	-3.8	-1.5	-7.6	-20.8	5.0	3.9	-3.9	6.5	11.5	4.1
Euro area 19	2.7	3.1	5.9	1.7	-5.3	-11.6	-2.5	-1.2	-3.1	-3.2	-0.7	1.2
EU 28	2.9	3.1	4.8	1.6	-5.2	-12.3	-1.9	-0.6	-3.2	-2.3	1.4	2.4
Iceland	14.2	11.9	16.5	13.2	-21.9	-55.7	-18.0	5.4	6.9	10.8	14.8	-3.1
Norway	16.3	9.7	4.0	2.7	-9.0	-8.1	-1.6	17.0	10.9	5.3	-1.5	1.6
Turkey	11.0	12.3	17.8	6.0	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
USA	10.0	6.6	-7.6	-18.8	-24.0	-21.2	-2.5	0.5	13.5	9.5	1.6	6.9

Sources: Eurostat, OECD

1) Time series breaks:
- None

2) The series has been revised for at least two years in:
- All countries, excluding Austria, Romania and Turkey.

3) Notes:
- For further details on the methodologies, please see "Annex: Explanatory Note on data".
- n/a: figure not available.

15. Total Dwelling Stock

Thousands units

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Austria	3,846	3,872	3,910	3,947	3,983	4,016	n/a	4,441	4,200	4,461	n/a	n/a
Belgium	4,820	4,858	4,903	4,950	4,996	5,043	5,087	5,131	5,180	5,229	5,277	5,319
Bulgaria	3,705	3,716	3,729	3,747	3,767	3,789	3,804	3,900	3,909	3,918	3,928	3,935
Croatia	n/a	n/a	n/a	n/a	n/a	n/a	n/a	1,924	n/a	n/a	n/a	n/a
Cyprus	327	340	359	376	394	410	421	431	437	441	n/a	n/a
Czech Republic	4,453	4,486	4,516	4,558	4,596	4,635	4,671	4,700	4,729	4,754	n/a	n/a
Denmark	2,614	2,641	2,658	2,670	2,696	2,722	2,770	2,786	2,797	2,812	2,827	2,844
Estonia	626	629	633	638	645	651	654	656	658	n/a	n/a	n/a
Finland	2,402	2,429	2,453	2,476	2,499	2,517	2,537	2,556	2,580	2,600	2,618	2,634
France	30,339	30,687	31,060	31,449	31,819	32,174	32,520	32,860	33,212	33,556	33,878	34,204
Germany	39,362	39,551	39,753	39,918	40,058	40,184	40,479	40,630	40,806	40,995	41,221	41,400
Greece	5,843	6,010	6,110	6,190	6,250	6,294	6,330	6,349	6,361	6,369	6,375	6,382
Hungary	4,134	4,173	4,209	4,238	4,270	4,303	4,331	4,349	4,394	4,402	4,408	4,415
Ireland	1,652	1,733	1,838	1,912	1,960	1,982	1,992	1,999	2,003	2,007	2,014	2,022
Italy	29,289	29,771	30,360	31,211	29,598	30,112	30,580	31,791	31,576	n/a	n/a	n/a
Latvia	987	998	1,018	1,036	1,042	1,035	n/a	1,019	n/a	n/a	n/a	n/a
Lithuania	1,300	1,300	1,307	1,316	1,328	1,337	1,341	1,283	1,289	1,298	1,309	1,322
Luxembourg	124	125	n/a	n/a	175	n/a	n/a	223	n/a	n/a	n/a	n/a
Malta	n/a	192	n/a	n/a	n/a	n/a	n/a	224	n/a	n/a	n/a	n/a
Netherlands	6,859	6,912	6,967	7,029	7,105	7,172	7,218	7,266	7,386	7,449	7,535	7,588
Poland	12,758	12,872	12,987	12,994	13,150	13,302	13,422	13,560	13,723	13,853	13,983	n/a
Portugal	5,620	5,672	5,706	5,744	5,793	5,826	5,852	5,879	5,907	5,926	5,937	n/a
Romania	8,177	8,202	8,231	8,271	8,329	8,385	8,428	8,722	8,761	8,800	8,841	8,882
Slovakia	1,926	1,940	1,955	1,970	1,987	2,006	2,023	2,036	n/a	n/a	n/a	n/a
Slovenia	798	805	812	820	830	838	845	850	854	857	860	n/a
Spain	22,380	22,882	23,458	24,027	24,591	24,938	25,131	25,229	25,276	25,257	25,221	25,181
Sweden	4,351	4,373	4,403	4,435	4,466	4,488	4,508	4,524	4,551	4,634	4,669	4,717
UK	26,042	26,274	26,516	26,772	27,047	27,266	27,448	27,614	27,767	27,914	28,073	n/a
Australia	n/a	n/a	n/a	n/a	n/a	n/a	n/a	7,760	n/a	n/a	n/a	n/a
Iceland	114	117	121	126	129	130	131	131	132	133	134	n/a
Japan	n/a	n/a	n/a	n/a	57,586	n/a	n/a	n/a	n/a	60,629	n/a	n/a
Norway	2,026	2,054	2,215	2,243	2,274	2,301	2,324	2,364	2,391	2,418	2,447	2,477
Russia	56,900	57,400	58,000	58,600	59,000	59,500	60,100	60,800	61,500	61,300	62,900	n/a
Turkey	n/a	n/a	n/a	n/a	n/a	n/a	n/a	19,482	n/a	n/a	n/a	n/a
USA	123,355	125,363	127,296	129,064	130,415	131,269	131,778	132,172	132,605	133,203	133,952	134,758

Source: European Mortgage Federation National Experts, National Statistics Offices, Japanese Ministry of Internal Affairs and Communication, US Bureau of Census

1) Time series breaks:
- Denmark: 2007 (due to a change in methodology)
- Netherlands: 2012 (due to a change in methodology)
- Norway: 2006 (due to a change in methodology)

2) The series has been revised for at least two years in:
- Finland
- France
- Ireland
- Romania
- Norway
- USA

3) Notes:
- For further details on the methodologies, please see "Annex: Explanatory Note on data".
- n/a: figure not available.
- For Germany 2015 is a preliminary data.
- For Sweden, 2014 is an approximation by the National Board of Housing.
- For Russia 2013 figure does not include all regions, and it therefore underestimates the true value.

16. Unoccupied Dwelling Stock

Thousands units

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Austria	n/a	n/a	n/a	n/a	n/a	n/a	n/a	796	n/a	n/a	n/a	n/a
Belgium	n/a	n/a	n/a	n/a	n/a	n/a	n/a	745	n/a	n/a	n/a	n/a
Bulgaria	n/a	n/a	n/a	n/a	n/a	n/a	n/a	1,220	n/a	n/a	n/a	n/a
Czech Republic	n/a	n/a	n/a	n/a	n/a	n/a	n/a	652	n/a	n/a	n/a	n/a
Cyprus	n/a	n/a	n/a	n/a	n/a	n/a	n/a	114	n/a	n/a	n/a	n/a
Denmark	n/a	n/a	n/a	n/a	n/a	n/a	167	165	165	164	163	158
Estonia	n/a	n/a	n/a	n/a	n/a	n/a	n/a	93	n/a	n/a	n/a	n/a
Finland	n/a	n/a	n/a	n/a	n/a	n/a	n/a	270	n/a	n/a	n/a	n/a
France	1,926	1,920	1,949	2,014	2,104	2,208	2,304	2,386	2,482	2,578	2,674	2,771
Germany	n/a	n/a	n/a	n/a	n/a	n/a	n/a	3,644	n/a	n/a	n/a	n/a
Greece	n/a	n/a	n/a	n/a	n/a	n/a	n/a	2,250	n/a	n/a	n/a	n/a
Hungary	n/a	n/a	n/a	n/a	n/a	n/a	n/a	477	n/a	n/a	n/a	n/a
Ireland	n/a	n/a	n/a	n/a	n/a	n/a	n/a	289	n/a	n/a	n/a	n/a
Italy	n/a	n/a	n/a	n/a	n/a	n/a	n/a	7,073	n/a	n/a	n/a	n/a
Latvia	n/a	n/a	n/a	n/a	n/a	n/a	n/a	211	n/a	n/a	n/a	n/a
Lithuania	n/a	n/a	n/a	n/a	n/a	n/a	n/a	198	n/a	n/a	n/a	n/a
Luxembourg	n/a	n/a	n/a	n/a	n/a	n/a	n/a	16	n/a	n/a	n/a	n/a
Malta	n/a	n/a	n/a	n/a	n/a	n/a	n/a	71	n/a	n/a	n/a	n/a
Netherlands	n/a	n/a	n/a	n/a	n/a	n/a	n/a	520	n/a	n/a	n/a	n/a
Spain	6,975	6,931	6,986	7,099	7,173	7,280	7,343	7,125	7,270	6,450	6,379	6,300
Poland	n/a	n/a	n/a	n/a	n/a	n/a	n/a	970	n/a	n/a	n/a	n/a
Portugal	n/a	n/a	n/a	n/a	n/a	n/a	n/a	1,868	n/a	n/a	n/a	n/a
Romania	n/a	n/a	n/a	n/a	n/a	n/a	n/a	1,427	n/a	n/a	n/a	n/a
Slovenia	n/a	n/a	n/a	n/a	n/a	n/a	n/a	175	n/a	n/a	n/a	n/a
Slovakia	n/a	n/a	n/a	n/a	n/a	n/a	n/a	196	n/a	n/a	n/a	n/a
Sweden	n/a	n/a	n/a	n/a	n/a	n/a	n/a	822	n/a	n/a	n/a	n/a
UK	711	724	745	763	783	770	737	719	704	635	610	600
Japan	n/a	n/a	n/a	n/a	7,568	n/a	n/a	n/a	n/a	8,196	n/a	n/a
USA	15,749	15,880	16,603	17,806	18,743	18,974	18,903	18,740	18,240	18,180	17,900	17,362

Sources: European Mortgage Federation National Experts, Eurostat (Census 2001 and 2011), Japan Ministry of Internal Affairs and Communication, US Bureau of Census

1) Time series breaks:
- none

2) The series has been revised for at least two years in:
- none

3) Notes:
- For further details on the methodologies, please see “Annex: Explanatory Note on data”.
- n/a: figure not available.

17. Number of Transactions

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Belgium	118,921	118,919	121,312	125,718	121,604	115,069	128,094	128,621	124,339	124,190	130,368	138,712
Croatia	2,166	2,145	3,389	3,110	3,025	2,861	2,319	2,169	2,357	1,997	2,410	1,672
Cyprus	n/a	n/a	23,213	28,371	18,565	11,444	13,701	12,279	11,424	8,609	9,398	11,469
Denmark	79,566	85,196	71,905	70,225	53,248	46,215	52,955	44,064	45,506	46,566	52,490	62,006
Estonia	35,784	47,215	44,858	37,495	25,080	17,715	21,044	21,814	24,888	28,774	29,820	32,652
Finland	75,955	84,340	83,848	87,411	70,483	71,012	70,689	69,099	71,645	63,440	58,520	61,578
France	1,023,200	1,028,500	1,138,300	1,164,800	941,100	842,000	1,056,000	1,078,000	931,000	918,000	906,000	1,053,000
Germany	441,000	503,000	442,000	456,000	454,000	472,000	512,000	555,000	576,000	561,000	566,000	596,000
Greece	165,988	215,148	172,897	167,699	157,978	135,967	117,948	83,665	57,650	49,774	43,443	n/a
Hungary	171,678	193,792	225,734	191,170	154,097	91,137	90,271	87,730	85,957	88,713	103,697	119,000
Ireland	104,305	110,495	110,790	84,194	53,616	25,097	18,313	18,201	24,980	29,818	43,237	48,566
Italy	804,126	833,350	845,051	806,225	686,587	609,145	611,878	598,224	444,018	403,124	417,524	448,893
Latvia	60,536	65,491	76,469	61,798	41,422	33,026	35,535	40,472	42,762	47,770	48,293	46,889
Luxembourg	4,908	5,011	n/a	5,091	4,409	4,509	5,165	5,749	5,474	5,471	6,477	6,269
Netherlands	191,941	206,629	209,767	202,401	182,392	127,532	126,127	120,739	117,261	110,094	153,511	178,293
Poland	81,541	70,757	67,936	65,792	77,526	60,894	76,698	86,897	116,555	124,685	130,656	n/a
Portugal	n/a	n/a	n/a	n/a	n/a	120,431	129,950	93,618	76,398	79,775	84,215	107,302
Romania	n/a	535,000	682,000	521,000	484,000	352,000	352,324	371,569	434,954	473,319	454,001	483,699
Slovenia	n/a	n/a	n/a	n/a	6,994	5,705	7,923	6,882	6,336	5,783	7,448	9,317
Spain	848,390	901,574	955,186	836,871	564,464	463,719	491,287	349,118	363,623	300,568	365,621	401,581
Sweden	141,035	149,072	151,448	163,676	146,882	146,582	152,072	144,946	143,675	151,582	159,536	165,943
UK	1,780,000	1,535,000	1,670,450	1,613,810	900,200	858,350	885,770	884,790	932,480	1,074,450	1,218,750	1,229,080
Iceland	12,761	13,415	9,876	13,163	5,218	3,039	4,012	5,887	6,691	7,433	8,316	10,067
Japan	186,100	170,900	167,300	150,500	170,800	168,800	164,600	166,800	154,900	169,467	n/a	n/a
Norway	69,107	74,435	78,455	74,926	65,241	70,995	77,246	83,891	83,441	81,343	85,172	88,283
Russia	n/a	1,864,310	1,998,910	2,528,292	2,518,470	2,161,398	3,081,526	3,867,324	4,194,451	4,088,947	4,492,775	3,851,909
Turkey	n/a	n/a	n/a	n/a	427,105	555,184	607,098	708,275	701,621	1,157,190	1,165,381	1,289,320
USA	7,981,000	8,359,000	7,529,000	5,816,000	4,595,000	4,715,000	4,513,000	4,566,000	5,090,000	5,519,000	5,377,000	5,751,000

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

1) Time series breaks:
- Ireland: 2011 (the source was changed from 2011 onwards)
- Germany: 2007 (the source was changed from 2007 onwards)
- Portugal: 2000

2) The series has been revised for at least two years in:
- Estonia
- Finland
- France
- Germany
- UK
- Iceland
- Norway

3) Notes:
- For further details on the methodologies, please see “Annex : Explanatory Note on data”.
- n/a : figure not available.
- In Belgium, the number includes only transaction on second hand houses.
- In Croatia, the number refers to new dwellings only.
- In Cyprus, the number refers to properties sold and transferred.
- In Denmark, the number excludes self-build dwellings but covers second homes.
- In Germany: 2015 is a preliminary data
- In Ireland, please note that data prior to 2011 is an estimation based on mortgage approvals, and must thus be used with caution.
- In the Netherlands, the number includes commercial transactions also.
- In Poland, the data for 2012 concerns only the dwellings of the secondary market and excludes single family houses.
- In Portugal, the number covers only urban areas including commercial transactions.
- In Romania, the number includes commercial transactions also.
- For Finland 2000-2007 are estimates by the Federation of Finnish Financial Service.
- For Denmark 2000-2003 is an estimation.

18. Nominal House Price Indices

2006=100

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Austria	95.7	98.0	100.0	102.1	101.0	104.5	109.1	112.3	117.8	121.3	123.0	127.8
Belgium	73.1	95.5	100.0	104.6	107.6	107.2	106.9	111.7	114.9	116.7	118.9	121.0
Bulgaria	63.8	87.2	100.0	128.9	161.1	128.2	115.2	108.8	106.8	104.4	105.9	108.9
Croatia	100.4	99.7	100.0	125.9	135.3	133.6	122.7	131.6	129.4	116.6	117.7	119.6
Cyprus	n/a	n/a	100.0	123.3	144.9	138.1	136.5	132.0	125.0	116.8	106.6	102.0
Czech Republic	89.2	92.2	100.0	119.4	133.5	123.2	123.6	122.8	121.9	122.0	126.7	132.3
Denmark	69.3	81.8	100.0	104.4	100.0	89.5	92.0	88.7	84.7	85.4	86.7	92.5
Estonia	50.8	66.9	100.0	120.8	109.1	68.5	72.4	78.6	84.3	93.3	106.1	113.4
Finland	87.7	93.0	100.0	105.5	106.1	105.8	115.0	118.1	120.1	122.0	121.3	120.3
France	79.1	90.9	100.0	105.7	101.7	97.5	104.9	108.8	106.5	104.5	101.8	101.5
Germany	96.4	99.8	100.0	99.8	102.8	102.3	102.9	105.5	108.7	112.2	115.7	120.9
Greece	79.6	88.3	100.0	105.9	107.7	103.7	98.9	93.5	82.6	73.6	68.1	64.7
Hungary	92.8	95.1	100.0	104.8	105.9	99.2	94.1	92.4	89.7	84.2	87.0	102.4
Ireland	n/a	87.2	100.0	107.3	99.8	81.1	71.0	61.2	54.2	55.3	62.5	69.0
Italy	n/a	94.7	100.0	104.5	105.0	104.9	105.2	106.0	103.0	97.3	95.7	92.9
Latvia	n/a	n/a	100.0	136.3	137.8	86.4	76.9	84.9	87.5	93.4	99.0	97.4
Lithuania	66.5	81.5	100.0	119.3	117.2	78.8	72.0	73.7	71.3	71.5	76.0	79.6
Luxembourg	85.2	92.3	100.0	104.8	105.9	104.0	108.5	109.7	112.4	116.5	120.8	127.0
Malta	n/a	83.5	100.0	121.1	134.5	128.6	130.0	130.0	132.0	131.2	134.6	140.1
Netherlands	92.0	95.6	100.0	104.2	107.3	103.6	101.3	98.9	92.5	86.4	87.8	90.7
Poland	n/a	n/a	100.0	129.5	128.1	119.3	116.6	115.9	106.3	105.3	107.2	108.4
Portugal	103.0	101.5	100.0	98.1	99.1	100.0	99.0	92.6	84.6	82.3	85.2	87.2
Romania	n/a	n/a	n/a	n/a	n/a	100.0	86.6	71.8	70.8	71.0	71.1	73.6
Slovakia	n/a	n/a	100.0	125.6	141.8	123.6	117.5	111.4	104.8	104.3	106.0	111.8
Slovenia	n/a	n/a	100.0	120.6	129.0	116.8	117.0	120.1	111.9	106.0	99.0	99.8
Spain	81.3	91.7	100.0	104.8	101.4	95.1	91.7	85.5	76.9	73.7	73.50	74.9
Sweden	81.9	89.8	100.0	110.7	113.9	116.2	124.8	125.8	124.1	128.5	137.4	152.2
UK	89.7	91.7	100.0	109.8	100.3	100.6	104.5	104.0	106.4	112.2	123.4	132.2
EU (simple average)	n/a	90.8	100.0	112.9	116.2	105.7	104.2	103.4	101.1	100.3	102.3	102.3
Euro area 19 (simple average)	n/a	n/a	100.0	111.3	113.7	102.7	101.9	101.8	99.5	98.9	100.1	102.2
Australia	91.9	93.5	100.0	110.5	114.9	119.5	133.5	130.6	130.2	138.8	151.4	165.1
Iceland	72.7	85.6	100.0	109.4	116.2	104.9	101.7	106.4	113.8	120.4	130.5	141.2
Japan	n/a	n/a	n/a	n/a	100.0	94.6	95.6	95.1	94.0	95.6	95.2	95.3
Norway	78.4	85.5	100.0	104.6	96.1	108.3	115.9	125.1	135.1	134.5	145.3	152.6
Russia	56.2	66.2	100.0	122.0	137.5	124.7	126.6	134.6	149.9	156.1	164.6	161.7
Turkey	n/a	n/a	n/a	n/a	n/a	n/a	100.0	110.2	123.1	138.7	158.8	188.0
USA	85.5	94.4	100.0	100.1	92.1	86.8	84.1	80.7	83.2	89.3	94.2	99.5

Sources: European Mortgage Federation, National Statistics Offices, OECD, ECB (for the euro area (19)), EUROSTAT (for the EU), Central Statistical Bureau of Latvia (LV), Federal Housing Finance Agency (US), Ministry of Land Infrastructure Transport and Tourism (JP)

1) Time series breaks:
- Croatia: 2005 (change of source)
- Czech Republic: 2008 (change in source)
- Iceland: 2005 (change of source)
- Portugal: 2005

2) The series has been revised for at least two years in:
- Austria
- Belgium
- Bulgaria
- Croatia
- Cyprus
- Czech Republic
- Denmark
- Estonia
- Germany
- Lithuania
- Luxembourg
- Poland
- Portugal
- Romania
- Slovakia
- UK
- Norway
- Russia
- USA

3) Notes:
- For further details on the methodologies, please see "Annex: Explanatory Note on Data".
- n/a : figure not available.
- For Romania 2009=100.
- For Japan 2008=100.
- For Turkey 2010=100.
- For Austria, the index covers new and used condominiums and for single-family houses.
- For Bulgaria, the index excludes new flats.
- For Croatia, the index covers the average price of new dwellings sold.
- For Cyprus, the index covers houses and flats and is calculated on year averages of valuation data.
- For Czech Republic, the index covers second-hand flat prices in CZ and also new flat prices Prague.
- For Denmark, second homes and flats are included.
- For Estonia, both new and existing dwellings are included.
- For Finland, the index covers the change in the prices of single-family houses and single-family house plots.
- For France, the index covers the weighted average of existing homes and the price index for new housing.
- For Greece, the index covers only urban areas.
- For Poland, the index includes only transactions in the secondary market, covering the 7 biggest cities in Poland.
- For Sweden, the index covers one- and two-dwellings buildings.
- For the UK, the index covers only market prices, self-built dwellings are excluded.
- For Australia, the index is a weighted average of the seven largest cities.
- For Japan, the index covers monthly price indices for detached houses.

19. Nominal House Price Index - cities

2006 = 100

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
AUSTRIA												
Vienna	87.1	92.6	100.0	105.1	110.7	117.7	126.9	137.7	159.3	173.1	180.4	184.5
BULGARIA												
Sofia	103.8	102.1	100.0	109.0	101.1	88.8	97.8	96.3	97.8	98.3	98.8	96.9
Varna	107.6	98.5	100.0	103.9	97.9	90.8	93.6	94.7	95.4	95.1	96.3	85.3
Plovdiv	112.9	100.1	100.0	103.1	103.7	86.4	97.7	95.1	96.7	97.3	97.7	91.8
CROATIA												
Zagreb	114.1	100.8	100.0	134.4	156.3	153.9	134.5	134.8	136.7	121.2	130.6	128.8
Rest of the country	90.4	98.4	100.0	113.2	112.1	116.8	111.0	125.4	118.1	109.6	107.2	111.1
CYPRUS												
Nicosia	n/a	n/a	100.0	118.9	140.1	134.5	133.7	132.0	126.4	117.5	107.5	101.8
Limassol	96.4	99.8	100.0	99.8	102.8	102.3	102.9	105.5	108.7	112.2	115.7	120.9
Larnaca	n/a	n/a	100.0	127.3	144.9	142.2	139.7	133.3	122.5	111.7	101.2	96.5
CZECH REPUBLIC												
Prague	n/a	93.9	100.0	128.2	148.7	133.0	127.6	125.5	124.6	126.0	128.9	132.4
DENMARK												
Copenhagen	61.5	80.6	100.0	96.7	88.9	76.4	85.1	84.8	82.3	88.2	95.4	105.9
Aarhus	65.3	81.5	100.0	101.3	95.3	88.5	94.8	93.5	93.1	94.7	95.9	103.3
Odense	66.3	79.6	100.0	108.1	106.7	96.3	98.5	94.6	91.8	93.9	96.0	100.9
FINLAND												
Helsinki	85.7	91.1	100.0	106.7	107.1	107.8	120.6	125.3	128.4	133.4	134.1	134.5
Tampere	84.8	91.7	100.0	104.6	104.6	103.4	111.8	114.7	116.7	118.5	119.6	120.7
Turku	85.8	92.4	100.0	103.4	100.7	101.2	108.1	110.0	111.9	114.1	117.8	118.7
FRANCE												
Paris	80.1	91.2	100.0	110.5	113.0	108.7	128.4	146.7	145.3	143.2	140.1	140.7
Marseille	75.2	89.6	100.0	100.9	95.1	92.5	97.9	100.0	96.0	91.4	88.3	85.9
Lyon	77.7	88.8	100.0	104.8	97.8	98.8	111.0	118.0	122.8	122.4	120.6	121.7
GERMANY												
Aggregate Berlin, Hamburg, Munich	n/a	n/a	100.0	102.0	105.0	107.0	111.0	119.0	128.0	136.0	145.0	157.0
GREECE												
Athens	82.4	89.5	100.0	106.2	107.2	102.2	98.9	92.6	81.7	71.7	64.9	61.6
Thessaloniki	65.0	82.2	100.0	107.0	108.6	102.1	94.6	88.2	76.2	69.3	64.7	61.3
HUNGARY												
Budapest	96.0	95.7	100.0	102.5	105.7	101.3	95.7	94.7	90.8	82.7	88.8	110.8
Debrecen	106.2	100.9	100.0	107.0	101.7	96.9	92.6	91.2	94.7	83.9	89.2	105.6
Szeged	99.2	99.9	100.0	104.0	102.0	102.8	97.1	96.2	93.3	86.8	90.1	103.6
IRELAND												
Dublin	n/a	84.6	100.0	105.5	95.7	72.6	62.1	52.7	46.3	50.3	60.8	67.0
NETHERLANDS												
Amsterdam	85.1	91.1	100.0	111.3	114.4	109.3	108.7	106.0	99.2	96.7	104.7	116.1
The Hague	92.0	95.1	100.0	104.7	107.2	101.9	102.1	98.6	89.5	87.4	90.6	95.1
Rotterdam	93.1	96.3	100.0	102.3	105.7	102.2	100.6	101.1	94.7	91.8	93.1	98.3

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
POLAND												
Cracovia	n/a	n/a	100.0	105.8	102.9	96.9	99.0	98.0	96.3	91.8	91.9	93.5
Lodz	n/a	n/a	100.0	187.0	186.1	168.3	181.7	182.4	154.7	157.4	161.6	154.7
Warsaw	n/a	n/a	100.0	126.5	126.6	119.0	112.3	110.4	101.3	100.6	103.4	103.6
PORTUGAL												
Lisbon	n/a	n/a	n/a	n/a	n/a	100.0	100.7	97.7	91.6	90.4	94.1	95.7
SLOVAKIA												
Bratislava	93.4	83.4	100.0	121.1	143.3	127.1	125.4	121.9	120.7	120.6	119.8	123.0
Košice	134.1	89.8	100.0	139.8	195.7	158.7	162.0	167.8	167.1	159.7	158.3	162.8
Prešov	82.5	96.7	100.0	122.1	171.7	146.9	135.0	134.3	131.2	128.6	125.0	121.7
SLOVENIA												
Ljubliana	n/a	n/a	n/a	100.0	100.1	90.8	90.3	93.1	87.5	77.3	71.4	75.2
SPAIN												
Barcelona	83.2	90.6	100.0	105.7	104.9	98.5	95.4	87.1	77.9	72.1	72.6	74.8
Madrid	85.2	94.2	100.0	101.8	94.0	88.7	83.4	76.5	67.0	68.4	68.8	71.1
Valencia	78.4	90.4	100.0	105.0	105.9	98.7	93.7	86.1	73.2	71.4	71.5	72.2
SWEDEN												
Stockholm	82.8	88.7	100.0	114.5	117.1	117.8	129.1	131.0	130.1	135.5	149.8	170.6
Malmö	77.7	87.9	100.0	110.7	109.7	111.0	119.8	119.2	113.8	115.6	120.2	131.2
Göteborg	79.9	90.5	100.0	108.8	112.5	114.0	124.2	127.1	126.3	132.1	140.1	156.8
UNITED KINGDOM												
London	86.2	89.4	100.0	112.2	101.5	106.4	113.2	117.5	125.1	140.5	159.2	174.2
AUSTRALIA												
Canberra	92.8	94.0	100.0	111.9	115.7	121.4	135.8	134.6	133.9	134.8	137.8	143.3
Sydney	103.8	100.4	100.0	104.8	105.6	109.4	122.8	122.2	123.9	135.8	155.6	181.1
Melbourne	90.7	93.6	100.0	115.2	124.5	133.4	155.3	151.6	147.2	155.1	167.0	180.3
ICELAND												
Reykjavik	65.6	88.7	100.0	110.2	114.4	103.5	99.5	104.5	111.7	119.0	129.1	141.2
JAPAN												
Tokyo	90.9	94.4	100.0	105.4	96.0	90.3	92.4	91.0	89.0	91.1	90.4	93.7
Osaka	99.0	99.5	100.0	103.4	98.4	92.3	92.8	92.1	90.3	90.4	89.2	90.0
Aichi	98.1	98.0	100.0	102.4	101.8	96.0	94.8	93.2	91.3	91.8	91.2	93.1
NORWAY												
Oslo	76.1	83.1	100.0	100.9	89.7	101.0	109.4	121.0	133.3	130.5	141.9	155.4
Bergen	75.0	83.8	100.0	101.0	87.4	98.7	109.2	118.2	126.9	128.1	140.4	148.7
Trondheim	70.5	79.1	100.0	113.2	106.2	120.7	136.0	150.4	163.1	158.6	162.4	153.8
TURKEY												
Ankara	n/a	n/a	n/a	n/a	n/a	n/a	100.0	108.9	118.9	130.8	145.5	162.6
Istanbul	n/a	n/a	n/a	n/a	n/a	n/a	100.0	112.1	127.3	148.6	181.7	230.6
Izmir	n/a	n/a	n/a	n/a	n/a	n/a	100.0	110.9	124.4	138.1	156.3	181.5
USA												
Washington - DC	77.8	94.8	100.0	103.3	98.3	95.6	98.5	101.5	109.6	122.6	135.7	143.6
New York	87.7	95.8	100.0	100.6	98.6	95.6	94.8	92.4	92.4	94.5	96.5	99.4
Los Angeles	75.1	90.5	100.0	96.2	79.9	73.4	72.8	69.1	70.6	79.9	86.5	93.0

Sources: European Mortgage Federation National Experts, National Central Banks, National Statistics Offices, Federal Housing Finance Agency (US), Ministry of Land Infrastructure Transport and Tourism (JP)

1) Time series breaks:
- none

2) The series has been revised for at least two years in:
- none

3) Notes:
- For Bulgaria: Data referred to flats in the district centres only (newly built flats are excluded).
- For Spain: the indexes refer to the regions around these cities.
- For Slovakia: the indexes refer to the regions around these cities, price per square metre.
- For Slovenia: the index comprises only apartments.

20. Change in Nominal house price

Annual % change

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Austria	-3.6	2.4	2.0	2.1	-1.1	3.5	4.4	3.0	4.9	3.0	1.4	3.9
Belgium	6.0	30.6	4.7	4.6	2.9	-0.4	-0.3	4.6	2.8	1.6	1.9	1.8
Bulgaria	47.5	36.6	14.7	28.9	24.9	-20.4	-10.2	-5.5	-1.9	-2.2	1.4	2.8
Croatia	4.8	-0.7	0.3	25.9	7.5	-1.2	-8.1	7.2	-1.6	-9.9	0.9	1.6
Cyprus	n/a	n/a	n/a	23.3	17.6	-4.7	-1.1	-3.3	-5.3	-6.5	-8.8	-4.3
Czech Republic	1.4	3.3	8.5	19.4	11.8	-7.7	0.3	-0.6	-0.8	0.1	3.8	4.5
Denmark	9.6	18.0	22.2	4.4	-4.2	-10.5	2.8	-3.6	-4.5	0.8	1.5	6.6
Estonia	n/a	31.6	49.5	20.8	-9.6	-37.2	5.7	8.5	7.3	10.7	13.7	6.9
Finland	7.3	6.1	7.5	5.5	0.6	-0.3	8.8	2.7	1.6	1.6	-0.6	-0.8
France	16.0	14.9	10.0	5.7	-3.8	-4.1	7.6	3.7	-2.1	-1.8	-2.6	-0.3
Germany	0.7	3.6	0.2	-0.2	3.0	-0.5	0.6	2.5	3.1	3.2	3.2	4.5
Greece	2.3	10.9	13.2	5.9	1.7	-3.7	-4.7	-5.5	-11.7	-10.8	-7.5	-5.0
Hungary	7.8	2.4	5.2	4.8	1.0	-6.3	-5.2	-1.8	-3.0	-6.1	3.3	17.7
Ireland	n/a	n/a	14.7	7.3	-7.0	-18.7	-12.5	-13.8	-11.4	2.0	13.1	10.3
Italy	n/a	n/a	5.6	4.5	0.5	-0.1	0.3	0.8	-2.9	-5.5	-1.7	-2.9
Latvia	n/a	n/a	n/a	36.3	1.1	-37.3	-11.0	10.4	3.0	6.8	6.0	-1.6
Lithuania	8.3	22.6	22.7	19.3	-1.8	-32.8	-8.6	2.4	-3.2	0.2	6.3	4.6
Luxembourg	11.5	8.3	8.3	4.8	1.0	-1.7	4.3	1.1	2.5	3.7	3.7	5.1
Malta	n/a	n/a	19.8	21.1	11.1	-4.4	1.1	0.0	1.5	-0.7	2.6	4.1
Netherlands	4.2	4.0	4.6	4.2	3.0	-3.4	-2.2	-2.4	-6.5	-6.6	1.6	3.3
Poland	n/a	n/a	n/a	29.5	-1.1	-6.8	-2.3	-0.6	-8.3	-1.0	1.8	1.1
Portugal	-1.6	-1.4	-1.5	-1.9	1.0	0.9	-1.0	-6.5	-8.7	-2.7	3.6	2.3
Romania	n/a	n/a	n/a	n/a	n/a	n/a	-13.4	-17.1	-1.3	0.2	0.2	3.6
Slovakia	n/a	n/a	n/a	25.6	12.9	-12.8	-4.9	-5.2	-5.9	-0.4	1.6	5.4
Slovenia	n/a	n/a	n/a	20.6	7.0	-9.5	0.1	2.7	-6.9	-5.2	-6.6	0.8
Spain	17.2	12.8	9.1	4.8	-3.2	-6.3	-3.5	-6.8	-10.0	-4.2	-0.3	1.8
Sweden	9.6	9.6	11.4	10.7	2.9	2.0	7.4	0.7	-1.3	3.6	6.9	10.8
UK	12.3	2.2	9.1	9.8	-8.7	0.3	3.9	-0.5	2.3	5.5	10.0	7.1
Australia	1.1	1.8	6.9	10.5	3.9	4.0	11.7	-2.2	-0.3	6.6	9.1	9.0
Iceland	23.3	17.7	16.9	9.4	6.2	-9.7	-3.0	4.6	7.0	5.8	8.4	8.2
Norway	9.9	9.1	17.0	4.6	-8.1	12.7	7.0	8.0	8.0	-0.5	8.1	5.0
Russia	21.3	17.8	51.0	22.0	12.7	-9.3	1.5	6.3	11.4	4.2	5.4	-1.8
Turkey	n/a	n/a	n/a	n/a	n/a	n/a	n/a	10.2	11.7	12.7	14.5	18.4
USA	9.5	10.5	5.9	0.1	-8.0	-5.8	-3.0	-4.1	3.1	7.4	5.4	5.6

Sources: European Mortgage Federation, National Statistics Offices, OECD, ECB (for the euro area)

1) Time series breaks:
- See Table 18

2) The series has been revised for at least two years in:
- See Table18

3) Notes:
- For further details on the methodologies, please see “Annex : Explanatory Note on data”.
- n/a : figure not available.
- See Table 18 for further notes.

21. Nominal House Price to Disposable Income of Households Ratio

2006 = 100

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Austria	106.7	102.7	100.0	97.5	93.7	96.6	100.1	100.2	100.7	103.4	102.3	104.9
Belgium	80.0	100.7	100.0	99.6	97.0	94.9	94.0	96.4	96.6	97.7	98.4	98.8
Bulgaria	79.5	99.1	100.0	115.9	119.0	93.9	83.7	73.2	70.1	66.5	n/a	n/a
Croatia	114.5	106.9	100.0	118.9	116.0	115.0	104.0	111.3	110.2	102.0	103.1	103.2
Cyprus	0.0	0.0	100.0	112.9	117.9	116.0	111.6	106.0	103.0	96.5	102.2	95.4
Czech Republic	108.3	106.0	100.0	106.7	109.0	87.9	92.8	88.1	84.1	86.0	90.3	97.8
Denmark	75.5	85.7	100.0	103.0	96.2	84.0	81.4	76.1	71.1	71.7	71.3	70.3
Estonia	68.7	79.5	100.0	100.9	80.5	55.7	59.3	58.9	61.2	62.2	68.7	67.4
Finland	93.7	96.9	100.0	99.7	94.9	92.1	96.3	94.8	93.6	92.5	91.3	89.5
France	85.1	95.1	100.0	100.5	93.7	89.7	94.2	95.7	93.1	90.7	87.3	85.9
Germany	100.3	102.0	100.0	97.8	98.3	98.6	96.8	96.3	97.0	98.2	98.9	100.5
Greece	91.7	94.6	100.0	99.3	95.7	90.5	93.6	96.9	93.5	90.7	87.3	80.2
Hungary	100.0	93.8	100.0	96.3	94.3	98.7	91.0	84.3	82.4	76.7	79.4	89.3
Ireland	n/a	93.6	100.0	99.1	86.8	75.9	70.0	61.5	54.6	56.1	61.8	62.3
Italy	n/a	98.2	100.0	100.7	99.4	101.7	102.1	100.3	100.2	94.2	92.5	89.1
Latvia	n/a	n/a	100.0	109.5	95.7	73.2	70.3	77.3	75.8	76.6	77.4	71.5
Lithuania	83.9	93.9	100.0	110.5	91.1	66.5	60.3	58.6	54.9	52.2	54.2	n/a
Luxembourg	n/a	n/a	100.0	98.2	91.3	87.5	86.9	84.6	83.2	87.9	88.6	90.3
Netherlands	95.9	98.6	100.0	99.9	101.3	97.9	95.2	90.9	85.0	78.4	77.8	78.5
Poland	n/a	n/a	100.0	116.7	99.0	104.7	89.7	87.3	77.9	76.1	75.3	74.2
Portugal	111.8	105.3	100.0	93.6	90.9	92.1	88.7	86.1	81.5	79.5	81.9	82.4
Romania	n/a	n/a	n/a	n/a	n/a	100.0	82.8	68.5	70.3	51.1	64.8	63.0
Slovakia	n/a	n/a	100.0	112.1	115.6	99.2	90.8	84.7	78.4	75.7	74.6	76.2
Slovenia	n/a	n/a	100.0	110.9	109.4	98.6	97.8	98.5	94.1	90.2	83.1	83.4
Spain	91.3	97.0	100.0	100.7	92.5	85.1	83.4	77.1	71.6	69.2	68.4	68.1
Sweden	88.1	95.0	100.0	103.3	105.0	112.8	105.3	95.0	86.8	87.3	95.3	104.5
UK	97.6	96.2	100.0	104.6	107.5	115.6	109.9	108.9	99.6	108.3	110.6	103.0
Japan	n/a	n/a	n/a	n/a	100.0	82.1	73.5	70.0	63.9	82.0	87.8	82.9
Norway	85.7	81.6	100.0	96.8	85.3	96.6	90.7	90.5	88.9	87.2	96.0	103.2
United States	94.6	99.9	100.0	104.6	98.7	88.5	79.4	76.1	69.0	76.4	77.3	n/a

1) Time series breaks:
- See Table 18

2) The series has been revised for at least two years in:
- All revised

3) Notes:
- For further details on the methodologies, please see "Annex : Explanatory Note on data".
- n/a : figure not available.
- See Tables 18 and 28 for further notes.

C. Funding of the Mortgage Market

22. Total Covered Bonds Outstanding, Backed by Mortgages

EUR million

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Austria	4,000	4,000	3,880	4,125	4,973	5,317	7,645	17,174	17,010	18,854	22,450	27,345
Belgium	-	-	-	-	-	-	-	-	2,590	8,188	10,575	15,105
Cyprus	-	-	-	-	-	-	-	5,200	4,550	1,000	1,000	650
Czech Republic	1,956	4,452	5,543	8,213	8,091	8,179	8,234	8,546	9,056	10,355	11,106	11,656
Denmark	216,133	246,411	260,367	244,696	255,140	319,434	332,505	345,529	359,560	359,646	369,978	377,903
Finland	250	1,500	3,000	4,500	5,750	7,625	10,125	18,839	26,684	29,783	32,031	33,974
France	47,491	57,153	73,977	103,604	159,407	176,043	200,585	243,279	249,077	239,329	223,373	222,512
Germany	246,636	237,547	223,306	206,489	217,367	225,100	219,947	223,676	215,999	199,900	189,936	197,726
Greece	-	-	-	-	5,000	6,500	19,750	19,750	18,046	16,546	14,546	4,961
Hungary	4,962	5,072	5,924	5,987	7,105	7,375	6,323	5,175	4,958	4,016	3,272	3,022
Ireland	2,000	4,140	11,900	13,575	23,075	29,725	29,037	30,007	25,099	20,827	18,473	16,916
Italy	-	-	-	-	6,500	14,000	26,925	50,768	116,405	122,099	122,464	122,135
Latvia	54	60	63	90	90	85	63	37	-	-	-	-
Luxembourg	-	-	150	150	150	-	-	-	-	-	-	-
Netherlands	-	2,000	7,477	15,093	20,534	27,664	40,180	51,970	59,822	61,015	58,850	61,101
Poland	220	558	453	676	561	583	511	527	657	707	882	1,230
Portugal	-	-	2,000	7,850	15,270	20,270	27,690	33,248	34,321	36,016	33,711	34,461
Slovakia	1,052	1,583	2,214	2,738	3,576	3,608	3,442	3,768	3,835	4,067	3,939	4,198
Spain	94,707	150,213	214,768	266,959	315,055	336,750	343,401	369,208	406,736	334,572	282,568	252,383
Sweden	n/a	n/a	55,267	92,254	117,628	133,903	188,750	208,894	220,374	217,854	209,842	221,990
UK (regulated)	-	-	-	-	125,764	109,473	125,250	121,623	147,425	114,395	114,654	106,674
UK (non regulated)	15,668	28,384	54,265	84,874	78,092	90,993	77,965	63,429	37,818	18,077	16,143	8,236
Australia	-	-	-	-	-	-	-	2,142	34,902	46,021	61,326	68,604
Iceland	-	-	467	478	492	685	807	808	893	803	927	1,205
Norway	-	-	-	6,371	21,924	53,582	70,401	91,852	107,242	105,202	102,704	107,694
USA	-	-	4,000	12,859	12,937	12,888	11,497	9,546	6,000	6,000	4,000	4,000

Source: European Covered Bond Council

1) Time series breaks:

2) The series has been revised for at least two years in:
- Portugal
- Slovakia
- UK regulated

3) Notes:
- For further details on the methodologies, please see "Annex : Explanatory Note on data".
- n/a : figure not available.
- Please note that the conversion to euros was performed by the ECBC.

23. Total Covered Bonds Issuances, Backed by Mortgages

EUR million

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Austria	n/a	214	2,176	1,959	1,321	1,442	3,600	3,664	3,805	6,093	7,111	5,457
Belgium	-	-	-	-	-	-	-	-	2,590	5,598	2,387	4,530
Cyprus	-	-	-	-	-	-	-	5,200	-	-	-	-
Czech Republic	744	2,558	956	3,501	938	738	723	770	1,309	1,791	2,188	2,729
Denmark	95,009	149,708	114,014	70,955	103,230	125,484	148,475	145,147	185,845	149,989	154,310	163,050
Finland	250	1,250	1,500	1,500	1,250	2,125	5,250	9,964	9,368	3,771	6,469	7,425
France	11,312	12,972	21,269	33,511	64,009	37,285	51,525	88,776	53,310	21,386	17,558	33,903
Germany	40,773	33,722	35,336	26,834	57,345	56,852	42,216	40,911	38,540	33,583	29,145	40,369
Greece	-	-	-	-	5,000	1,500	17,250	5,000	-	-	750	-
Hungary	2,381	808	1,418	331	3,331	3,209	542	2,264	1,140	559	91	888
Ireland	2,000	2,000	7,753	1,675	9,506	14,801	6,000	9,290	5,500	3,235	2,535	5,225
Italy	-	-	-	-	6,500	7,500	12,925	29,261	70,768	24,520	39,475	27,650
Latvia	22	4	20	19	25	-	-	-	-	-	-	-
Luxembourg	-	-	150	-	-	-	-	-	-	-	-	-
Netherlands	-	2,000	5,477	7,648	5,355	7,725	13,660	14,143	10,738	4,478	3,910	7,908
Poland	63	224	52	206	197	88	138	269	228	116	269	416
Portugal	-	-	2,000	5,850	7,420	6,000	11,570	8,450	4,850	4,500	3,825	8,675
Slovakia	549	584	676	803	1,414	707	1,179	867	785	841	654	1,159
Spain	37,835	57,780	69,890	51,801	54,187	43,580	51,916	72,077	98,846	22,919	23,038	31,375
Sweden	n/a	n/a	17,569	36,638	43,488	53,106	79,910	69,800	48,936	51,633	48,424	60,729
UK (regulated)	-	-	-	-	10,145	8,254	25,000	36,983	37,109	1,480	12,529	15,015
UK (non regulated)	10,668	12,675	25,813	31,673	110,761	22,177	900	-	-	-	-	-
Australia	-	-	-	-	-	-	-	2,142	32,731	13,519	12,716	9,835
Iceland	-	-	467	-	321	-	-	25	113	51	91	414
Norway	-	-	-	6,458	15,660	30,105	21,062	28,135	22,946	18,339	14,474	17,750
USA	-	-	4,000	8,859	-	-	-	-	-	-	-	-

Source: European Covered Bond Council

1) Time series breaks:

2) The series has been revised for at least two years in:

- Portugal

3) Notes:

- For further details on the methodologies, please see "Annex : Explanatory Note on data".
- n/a : figure not available.
- Please note that the conversion to euros was performed by the ECBC.

24. Total Covered Bonds Outstanding, Backed by Mortgages
As % of GDP

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Austria	1.7	1.6	1.5	1.5	1.7	1.9	2.6	5.6	5.4	5.8	6.8	8.1
Belgium	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	2.1	2.6	3.7
Cyprus	0.0	0.0	0.0	0.0	0.0	0.0	0.0	26.6	23.4	5.5	5.7	3.7
Czech Republic	2.0	4.1	4.5	6.0	5.0	5.5	5.3	5.2	5.6	6.6	7.1	7.0
Denmark	106.8	115.7	115.4	104.8	105.8	138.8	137.7	140.4	142.2	140.9	142.0	142.0
Finland	0.2	0.9	1.7	2.4	3.0	4.2	5.4	9.6	13.4	14.6	15.6	16.4
France	2.8	3.2	4.0	5.3	8.0	9.1	10.0	11.8	11.9	11.3	10.4	10.2
Germany	10.9	10.3	9.3	8.2	8.5	9.1	8.5	8.3	7.8	7.1	6.5	6.5
Greece	0.0	0.0	0.0	0.0	2.1	2.7	8.7	9.5	9.4	9.2	8.2	2.8
Hungary	5.9	5.6	6.5	5.9	6.6	7.9	6.4	5.1	5.0	4.0	3.1	2.8
Ireland	1.3	2.4	6.4	6.9	12.3	17.5	17.5	17.3	14.4	11.6	9.8	7.9
Italy	0.0	0.0	0.0	0.0	0.4	0.9	1.7	3.1	7.2	7.6	7.6	7.5
Latvia	0.5	0.4	0.4	0.4	0.4	0.5	0.4	0.2	0.0	0.0	0.0	0.0
Luxembourg	0.0	0.0	0.4	0.4	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Netherlands	0.0	0.4	1.3	2.5	3.2	4.5	6.4	8.1	9.3	9.3	8.9	9.0
Poland	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.3
Portugal	0.0	0.0	1.2	4.5	8.5	11.6	15.4	18.9	20.4	21.2	19.4	19.2
Slovakia	3.0	4.0	4.9	4.9	5.4	5.7	5.1	5.3	5.3	5.5	5.2	5.4
Spain	11.0	16.1	21.3	24.7	28.2	31.2	31.8	34.5	39.0	32.4	27.1	23.3
Sweden	n/a	n/a	16.5	25.9	33.4	43.2	51.1	51.6	52.1	50.0	48.7	49.9
UK (regulated)	0.0	0.0	0.0	0.0	6.4	6.4	6.8	6.5	7.1	5.6	5.1	4.1
UK (non regulated)	0.8	1.4	2.5	3.8	4.0	5.3	4.3	3.4	1.8	0.9	0.7	0.3
Australia	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	2.9	3.9	5.6	5.7
Iceland	0.0	0.0	3.4	3.1	4.1	7.4	8.1	7.7	8.1	6.9	7.2	8.1
Norway	0.0	0.0	0.0	2.2	7.0	19.3	21.8	25.7	27.0	26.7	27.3	30.8
USA	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0

Source: European Covered Bond Council, Eurostat

1) Time series breaks:

2) The series has been revised for at least two years in:
- Denmark
- Greece
- Hungary
- Ireland
- Portugal
- Spain
- Sweden
- UK (regulated)
- UK (non regulated)
- Norway
- USA

3) Notes:
- For further details on the methodologies, please see "Annex : Explanatory Note on data".
- n/a : figure not available.
- For a detailed defintion of covered bonds, please see the glossary.
- Please note that the conversion to euros was performed by the ECBC.
- See Tables 22 and 27 for further notes.

25. Total Residential Mortgage-Backed Securities (RMBS) Outstanding
EUR million

	2009	2010	2011	2012	2013	2014	2015
Austria	2,174	2,099	2,015	1,869	1,815	1,702	1,576
Belgium	59,551	61,679	70,998	71,237	63,318	55,813	47,729
Finland	5,671	4,449	3,677	0	0	0	0
France	15,458	12,839	19,325	17,687	10,237	50,147	59,336
Germany	45,932	40,557	34,762	28,092	23,793	20,158	26,563
Greece	10,143	6,785	6,311	6,422	4,274	3,658	2,600
Ireland	68,754	68,900	59,508	51,183	37,626	36,159	31,532
Italy	167,280	144,365	122,062	101,739	90,205	80,685	69,473
Netherlands	275,066	290,052	287,326	269,518	250,142	239,768	209,590
Portugal	39,681	43,186	37,800	29,149	27,621	26,051	22,736
Spain	192,173	191,241	171,914	127,685	118,040	122,570	118,604
Sweden	0	96	96	96	380	302	499
UK	507,528	455,517	409,738	301,776	254,807	217,984	160,668
Russia	3,332	2,931	2,728	1,725	1,281	505	380

Source: Association for Financial Markets in Europe (AFME)

1) Time series breaks:

2) The series has been revised for at least two years in:
- Austria
- Belgium
- France
- Germany
- Italy
- Netherlands
- Portugal
- UK

3) Notes:
- For further details on the methodologies, please see "Annex : Explanatory Note on data".
- n/a : figure not available.
- Please note that the conversion to euros was performed by AFME.

26. Total RMBS Issuances
EUR million

	2009	2010	2011	2012	2013	2014	2015
Belgium	19,154	7,860	19,029	4,699	2,018	0	1,216
France	195	5,000	13,841	2,628	0	47,216	11,362
Germany	215	363	0	0	0	40	20,487
Greece	1,410	0	1,750	1,343	0	0	0
Ireland	13,869	4,157	0	890	1,021	2,072	206
Italy	44,971	9,965	9,202	35,826	4,914	4,756	6,589
Netherlands	40,523	124,093	82,945	47,196	39,462	14,231	19,359
Portugal	8,585	9,352	1,340	1,107	1,373	0	1,192
Spain	25,831	18,215	14,094	3,302	7,322	17,321	9,566
UK	70,536	87,149	80,782	40,075	8,399	25,201	30,687

Source: Association for Financial Markets in Europe (AFME)

1) Time series breaks:
- All countries: 2007

2) The series has been revised for at least two years in:
- All countries

3) Notes:
- For further details on the methodologies, please see "Annex : Explanatory Note on data".
- n/a : figure not available.
- Please note that the conversion to euros was performed by AFME.

D. Macroeconomic Indicators

27. GDP at Current Market Prices

EUR million

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Austria	241,505	253,009	266,478	282,347	291,930	286,188	294,628	308,630	317,056	322,878	329,296	337,286
Belgium	298,711	311,481	326,662	344,713	354,066	348,781	365,101	379,106	387,447	392,675	400,408	409,407
Bulgaria	21,042	24,002	27,350	32,708	37,373	37,245	37,724	40,955	41,693	41,912	42,751	44,162
Croatia	33,465	36,508	40,198	43,926	48,130	45,091	45,004	44,709	43,934	43,487	43,020	43,897
Cyprus	13,848	14,946	16,141	17,454	18,822	18,482	19,118	19,547	19,469	18,065	17,394	17,421
Czech Republic	95,879	109,394	123,743	138,004	160,962	148,357	156,370	164,041	161,434	157,742	156,660	166,964
Denmark	202,317	212,907	225,592	233,440	241,087	230,213	241,517	246,075	252,915	255,235	260,582	266,179
Estonia	9,708	11,262	13,522	16,246	16,517	14,146	14,719	16,668	18,006	19,015	19,963	20,461
Finland	158,477	164,387	172,614	186,584	193,711	181,029	187,100	196,869	199,793	203,338	205,268	207,220
France	1,710,760	1,771,978	1,853,267	1,945,670	1,995,850	1,939,017	1,998,481	2,059,284	2,086,929	2,115,256	2,139,964	2,181,064
Germany	2,270,620	2,300,860	2,393,250	2,513,230	2,561,740	2,460,280	2,580,060	2,703,120	2,754,860	2,820,820	2,915,650	3,025,900
Greece	193,716	199,242	217,862	232,695	241,990	237,534	226,031	207,029	191,204	180,389	177,559	176,023
Hungary	83,497	90,543	91,345	101,606	107,503	93,671	98,198	100,705	98,973	101,273	104,239	108,748
Ireland	156,177	169,978	184,923	197,054	187,547	169,432	166,158	173,940	174,844	179,448	189,046	214,623
Italy	1,448,363	1,489,726	1,548,473	1,609,551	1,632,151	1,572,878	1,604,515	1,637,463	1,613,265	1,604,478	1,611,884	1,636,372
Latvia	11,662	13,711	17,235	22,640	24,318	18,731	17,772	20,144	21,983	22,805	23,581	24,378
Lithuania	18,237	21,002	24,079	29,041	32,696	26,935	28,028	31,263	33,335	34,962	36,444	37,124
Luxembourg	27,661	29,734	33,409	36,766	37,647	36,268	39,526	42,227	43,574	46,541	48,898	52,113
Malta	4,867	5,142	5,386	5,758	6,129	6,139	6,600	6,880	7,217	7,665	8,084	8,806
Netherlands	523,939	545,609	579,212	613,280	639,163	617,540	631,512	642,929	645,164	652,748	663,008	676,531
Poland	206,120	246,201	274,603	313,874	366,182	317,083	361,744	380,177	389,273	394,602	410,856	427,737
Portugal	152,372	158,653	166,249	175,468	178,873	175,448	179,930	176,167	168,398	170,269	173,446	179,369
Romania	61,404	80,226	98,419	125,403	142,396	120,409	126,746	133,306	133,511	144,254	150,230	160,353
Slovakia	34,702	39,220	45,396	56,091	65,840	63,819	67,387	70,444	72,420	73,835	75,561	78,071
Slovenia	27,737	29,235	31,561	35,153	37,951	36,166	36,252	36,896	35,988	35,908	37,303	38,543
Spain	861,420	930,566	1,007,974	1,080,807	1,116,207	1,079,034	1,080,913	1,070,413	1,042,872	1,031,272	1,041,160	1,081,190
Sweden	307,433	313,218	334,877	356,434	352,317	309,679	369,077	404,946	423,341	435,752	430,642	444,617
UK	1,922,721	2,017,340	2,135,221	2,237,031	1,964,450	1,705,456	1,833,021	1,876,151	2,065,737	2,048,328	2,260,805	2,575,719
Euro area 19	8,164,481	8,459,740	8,903,693	9,400,545	9,633,149	9,287,847	9,543,829	9,799,018	9,833,825	9,931,770	10,106,163	10,406,506
EU 28	11,023,756	11,516,983	12,181,944	12,914,632	12,994,980	12,254,797	12,793,540	13,179,490	13,431,785	13,548,113	13,957,519	14,635,154
Australia	492,560	557,090	594,840	622,439	716,996	664,299	861,621	998,505	1,196,667	1,177,585	1,094,976	1,207,336
Iceland	11,017	13,463	13,572	15,537	11,919	9,217	9,985	10,535	11,048	11,578	12,824	14,960
Japan	3,742,908	3,674,839	3,469,855	3,178,656	3,296,971	3,609,938	4,147,784	4,244,963	4,636,714	3,696,155	3,459,659	3,716,321
Norway	212,523	248,149	275,107	292,509	314,079	277,017	323,244	357,872	396,719	393,605	376,755	349,991
Russia	475,132	614,112	788,412	948,344	1,129,213	876,573	1,150,273	1,459,606	1,689,092	1,679,563	1,528,771	1,195,147
Turkey	315,272	388,216	422,826	472,204	496,558	440,604	551,534	556,576	613,997	619,865	601,278	647,338
USA	9,868,099	10,524,657	11,035,272	10,563,761	10,007,195	10,337,496	11,287,902	11,147,935	12,574,140	12,546,615	13,058,390	16,175,751

Sources: Eurostat, World Bank

1) Time series breaks:
- For all counties: 2003 and onwards

2) The series has been revised for at least two years in:
- All countries

3) Notes:
- For further details on the methodologies, please see "Annex: Explanatory Note on data".
- n/a : figure not available.
- Please note that the GDP at current prices has been taken in euros directly from Eurostat.
- Please note that for the non European countries GDP figures have been downloaded from the World Bank and the year-average USD/EUR exchange rate (Table 30) has been applied.

28. Gross Disposable Income of Households

EUR million

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Austria	151,367	161,071	168,692	176,572	181,866	182,485	183,692	189,085	197,324	197,802	202,925	205,547
Belgium	176,657	183,208	193,186	202,915	214,338	218,124	219,614	223,938	229,690	230,873	233,331	236,582
Bulgaria	12,862	14,098	16,026	17,824	21,696	21,876	22,063	23,829	24,392	25,168	n/a	n/a
Croatia	21,966	23,338	25,034	26,505	29,193	29,082	29,533	29,606	29,404	28,624	28,574	29,000
Cyprus	9,162	9,881	10,749	11,736	13,220	12,798	13,154	13,380	13,049	13,014	11,214	11,499
Czech Republic	51,752	54,601	62,809	70,229	76,866	88,025	83,616	87,613	91,008	89,054	88,068	85,027
Denmark	95,415	99,289	103,945	105,365	108,083	110,834	117,515	121,102	123,903	123,810	126,438	136,716
Estonia	5,145	5,854	6,955	8,325	9,426	8,563	8,488	9,282	9,576	10,435	10,742	11,698
Finland	86,460	88,726	92,410	97,727	103,375	106,157	110,416	115,207	118,536	121,939	122,733	124,207
France	1,108,256	1,139,296	1,191,393	1,253,515	1,292,871	1,295,767	1,327,486	1,354,440	1,362,500	1,372,840	1,388,644	1,408,133
Germany	1,532,416	1,560,094	1,594,486	1,626,612	1,666,687	1,653,881	1,693,870	1,746,060	1,786,210	1,821,223	1,865,074	1,917,404
Greece	131,279	141,221	151,271	161,315	170,046	173,150	159,713	146,236	133,522	122,791	118,466	116,732
Hungary	49,237	53,760	53,016	57,669	59,518	53,287	54,831	58,077	57,655	58,188	58,118	60,791
Ireland	72,258	79,295	85,099	92,187	97,854	90,979	86,261	84,724	84,405	83,911	86,088	94,194
Italy	998,542	1,026,404	1,064,499	1,104,016	1,124,388	1,098,244	1,097,001	1,125,176	1,094,462	1,099,116	1,100,864	1,109,743
Latvia	6,992	8,596	10,927	13,602	15,737	12,894	11,949	12,001	12,603	13,326	13,991	14,893
Lithuania	12,882	14,115	16,260	17,552	20,919	19,264	19,425	20,442	21,119	22,249	22,808	n/a
Luxembourg	n/a	n/a	12,620	13,468	14,638	14,995	15,744	16,354	17,047	16,732	17,220	17,743
Netherlands	275,134	278,255	286,853	299,173	303,807	303,818	305,193	312,078	312,292	316,075	323,777	331,471
Poland	137,268	159,454	174,379	193,507	225,617	198,731	226,715	231,491	238,055	241,275	248,185	254,637
Portugal	107,039	112,005	116,190	121,784	126,704	126,182	129,750	124,984	120,492	120,269	120,987	122,951
Romania	39,556	49,886	59,300	76,535	86,252	73,087	76,421	76,615	73,675	101,504	80,188	85,408
Slovakia	27,809	30,167	32,739	36,673	40,183	40,783	42,369	43,058	43,764	45,114	46,532	48,020
Slovenia	17,136	18,354	19,373	21,073	22,842	22,941	23,175	23,621	23,034	22,766	23,087	23,181
Spain	557,354	591,488	625,742	650,741	686,073	698,869	688,395	694,224	672,120	666,602	672,537	688,253
Sweden	143,793	146,190	154,598	165,658	167,710	159,348	183,211	204,567	221,077	227,714	222,741	225,256
UK	1,197,489	1,240,649	1,302,359	1,366,924	1,214,465	1,133,409	1,238,346	1,243,719	1,390,985	1,349,001	1,454,027	1,671,802
Euro area 19	5,315,189	5,483,008	5,700,766	5,929,800	6,122,963	6,093,222	6,146,603	6,262,975	6,266,967	6,313,778	6,386,861	n/a
European Union	7,055,697	7,330,423	7,653,739	8,007,420	8,122,015	7,980,090	8,192,328	8,362,243	8,534,853	8,568,635	8,720,232	n/a
Japan	2,364,988	2,327,095	2,192,792	1,988,780	2,084,384	2,403,249	2,710,917	2,833,038	3,065,938	2,428,756	2,261,261	2,397,038
Norway	101,896	116,724	111,373	120,297	125,414	124,848	142,225	153,900	169,301	171,764	168,625	164,710
United States	7,392,877	7,733,221	8,180,790	7,827,654	7,634,009	8,015,128	8,669,609	8,672,126	9,872,587	9,565,394	9,972,676	n/a

Source: European Commission AMECO Database), National Statistical Offices

1) Time series breaks:

2) The series has been revised for at least two years in:

- All countries

3) Notes:

- For further details on the methodologies, please see "Annex: Explanatory Note on data".
- n/a : figure not available.
- Please note that the disposable income of households at current prices has been taken in euros directly from AMECO, except for Greece which was taken from ELSTAT.
- Figures from Malta not available.

29. Population

18 years of age or over

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Austria	6,524,762	6,587,283	6,647,030	6,689,506	6,730,188	6,772,979	6,809,974	6,851,056	6,899,032	6,953,033	7,014,528	7,085,887
Belgium	8,229,047	8,275,919	8,331,936	8,396,748	8,472,359	8,547,467	8,625,749	8,756,344	8,833,129	8,886,633	8,921,498	8,968,437
Bulgaria	6,381,685	6,379,644	6,370,686	6,288,980	6,268,322	6,244,348	6,216,530	6,181,328	6,145,788	6,106,540	6,066,969	6,019,998
Croatia	3,453,827	3,469,438	3,478,511	3,488,997	3,494,947	3,498,699	3,497,844	3,489,108	3,482,850	3,475,931	3,470,956	3,461,959
Cyprus	541,397	552,932	564,986	579,869	598,457	619,004	640,785	661,878	684,689	690,884	687,113	677,766
Czech Republic	8,254,247	8,290,239	8,340,176	8,395,089	8,490,760	8,576,764	8,617,502	8,639,375	8,668,769	8,676,895	8,662,146	8,665,578
Denmark	4,198,678	4,205,916	4,216,893	4,233,174	4,260,307	4,294,246	4,319,228	4,349,596	4,378,227	4,412,327	4,449,811	4,489,821
Estonia	1,087,470	1,087,090	1,086,620	1,086,180	1,087,380	1,088,470	1,087,930	1,085,600	1,081,355	1,076,483	1,072,179	1,068,868
Finland	4,111,020	4,130,843	4,151,882	4,177,242	4,204,459	4,234,754	4,262,971	4,290,980	4,319,501	4,347,944	4,374,590	4,396,261
France	48,115,314	48,572,576	49,010,534	49,384,484	49,720,834	50,026,691	50,289,714	50,561,775	50,783,443	51,023,819	51,260,330	51,625,433
Germany	67,476,832	67,672,014	67,880,591	68,072,756	68,247,754	68,318,799	68,320,564	68,410,713	68,624,472	68,861,003	67,691,934	68,085,517
Greece	9,011,531	9,065,058	9,111,859	9,153,000	9,197,244	9,211,160	9,205,702	9,165,757	9,131,374	9,063,145	9,002,883	8,958,738
Hungary	8,133,136	8,147,132	8,150,716	8,162,060	8,164,552	8,176,847	8,187,583	8,187,767	8,148,079	8,151,220	8,142,944	8,133,934
Ireland	3,009,305	3,087,045	3,173,018	3,286,982	3,374,379	3,415,449	3,425,549	3,430,232	3,422,850	3,413,840	3,414,691	3,424,783
Italy	47,679,397	48,003,440	48,135,168	48,271,301	48,644,498	48,948,648	49,125,682	49,321,210	49,396,435	49,662,299	50,624,663	50,699,447
Latvia	1,812,412	1,804,956	1,800,478	1,796,373	1,791,626	1,774,385	1,745,489	1,714,389	1,693,261	1,676,807	1,655,631	1,637,436
Lithuania	2,639,904	2,628,887	2,598,042	2,582,404	2,567,153	2,559,069	2,539,358	2,477,645	2,447,378	2,428,149	2,410,825	2,396,789
Luxembourg	354,077	359,321	365,836	371,924	378,602	387,286	394,805	403,289	415,783	426,500	437,663	449,861
Malta	310,122	314,365	318,159	321,101	325,462	330,123	334,759	337,240	340,819	345,286	349,724	353,880
Netherlands	12,654,365	12,707,935	12,752,453	12,793,540	12,859,287	12,957,546	13,060,511	13,153,716	13,243,578	13,316,082	13,386,487	13,471,533
Poland	29,840,800	30,086,768	30,293,256	30,464,912	30,627,711	30,786,207	30,756,819	30,878,251	30,981,112	31,057,690	31,083,811	31,120,744
Portugal	8,437,632	8,470,671	8,495,894	8,528,160	8,561,019	8,585,358	8,615,642	8,643,390	8,640,208	8,607,853	8,574,343	8,549,207
Romania	16,967,480	16,632,502	16,748,292	16,661,834	16,481,177	16,539,284	16,417,888	16,336,812	16,254,443	16,234,182	16,204,893	16,135,980
Slovakia	4,177,722	4,210,798	4,238,819	4,266,375	4,293,057	4,320,057	4,343,880	4,361,987	4,385,503	4,401,188	4,410,901	4,419,854
Slovenia	1,628,855	1,636,449	1,648,733	1,661,268	1,665,097	1,685,679	1,698,911	1,699,493	1,702,224	1,702,827	1,703,087	1,702,971
Spain	35,021,216	35,680,164	36,280,525	36,913,705	37,631,695	38,051,708	38,223,380	38,356,620	38,460,731	38,356,537	38,162,985	38,102,545
Sweden	7,034,234	7,072,239	7,113,513	7,179,337	7,251,275	7,331,508	7,419,589	7,496,476	7,563,649	7,627,772	7,692,386	7,762,073
UK	46,521,774	46,926,251	47,377,251	47,817,442	48,271,326	48,704,715	49,140,673	49,605,268	50,010,040	50,346,420	50,690,098	51,152,323
Euro area 19	262,699,066	264,722,532	266,468,972	268,217,167	270,231,250	271,743,269	272,697,912	273,683,314	274,505,765	275,240,312	275,156,055	276,075,213
EU 28	393,608,241	396,007,673	398,619,941	401,024,743	403,660,927	405,987,250	407,325,011	408,847,295	410,138,722	411,324,012	411,635,275	413,017,623
Iceland	212,028	214,642	220,441	228,203	235,271	238,587	236,948	238,035	239,724	242,099	245,631	249,094
Norway	3,495,131	3,518,330	3,547,491	3,585,131	3,637,892	3,695,771	3,749,043	3,805,931	3,867,645	3,928,378	3,982,920	4,040,722
Russia	n/a	n/a	114,814,582	115,206,540	115,599,905	115,848,565	115,933,934	116,647,838	n/a	n/a	n/a	n/a
Turkey	46,468,990	47,369,939	48,237,815	n/a	48,286,261	49,019,859	49,922,901	51,023,485	52,014,986	52,935,210	53,906,162	54,857,422
USA	219,507,563	221,992,930	224,622,198	227,211,802	229,989,364	232,637,362	235,223,828	237,801,767	240,392,551	242,834,652	245,308,220	247,773,709

Sources : Eurostat, US Bureau of Census

1) Time series breaks:

2) The series has been revised for at least two years in:
- France
- Greece
- Poland
- Romania
- UK

3) Notes:
- For further details on the methodologies, please see "Annex: Explanatory Note on data".
- n/a : figure not available.

30. Bilateral Nominal Exchange Rate with the Euro

End of the year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
EU 28												
Bulgarian lev	1.956	1.956	1.956	1.956	1.956	1.956	1.956	1.956	1.956	1.956	1.9558	1.9558
Croatian kuna	7.665	7.372	7.350	7.331	7.356	7.300	7.383	7.537	7.558	7.627	7.658	7.638
Czech koruna	30.46	29.00	27.49	26.63	26.88	26.47	25.06	25.79	25.15	27.43	27.735	27.023
Danish krone	7.439	7.461	7.456	7.458	7.451	7.442	7.454	7.434	7.461	7.459	7.4453	7.4626
Hungarian forint	246.0	252.9	251.8	253.7	266.7	270.4	278.0	314.6	292.3	297.0	315.54	315.98
Polish zloty	4.085	3.860	3.831	3.594	4.154	4.105	3.975	4.458	4.074	4.154	4.2732	4.264
Romanian leu	n/a	3.680	3.384	3.608	4.023	4.236	4.262	4.323	4.445	4.471	4.4828	4.524
Swedish krona	9.021	9.389	9.040	9.442	10.87	10.25	8.966	8.912	8.582	8.859	9.393	9.190
UK pound sterling	0.705	0.685	0.672	0.733	0.953	0.888	0.861	0.835	0.816	0.834	0.7789	0.73395
Non-EU												
Australian dollar	1.7459	1.6109	1.6691	1.6757	2.0274	1.6008	1.3136	1.2723	1.2712	1.5423	1.4829	1.4897
Icelandic krona*	83.41	74.79	93.75	91.64	169.33	179.76	153.78	158.98	168.89	158.29	154.31	141.38
Japanese yen	139.65	138.9	156.93	164.93	126.14	133.16	108.65	100.20	113.61	144.72	145.23	131.07
Norwegian krone	8.237	7.985	8.238	7.958	9.750	8.300	7.800	7.754	7.348	8.363	9.042	9.603
Russian rouble	37.79	33.92	34.68	35.99	41.28	43.15	40.82	41.77	40.33	45.32	72.337	80.67
Turkish lira	1.821	1.592	1.864	1.717	2.149	2.155	2.069	2.443	2.355	2.961	2.832	3.177
US dollar	1.362	1.180	1.317	1.472	1.392	1.441	1.336	1.294	1.319	1.379	1.2141	1.089

Yearly Average	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
EU 28												
Bulgarian lev	1.953	1.956	1.956	1.956	1.956	1.956	1.956	1.956	1.956	1.956	1.956	1.956
Croatian kuna	7.497	7.401	7.325	7.338	7.224	7.340	7.289	7.439	7.522	7.579	7.634	7.614
Czech koruna	31.891	29.782	28.342	27.766	24.946	26.435	25.284	24.590	25.149	25.980	27.536	27.279
Danish krone	7.440	7.452	7.459	7.451	7.456	7.446	7.447	7.451	7.444	7.458	7.455	7.459
Hungarian forint	251.660	248.050	264.260	251.350	251.510	280.330	275.480	279.370	289.250	296.870	308.710	310.000
Polish zloty	4.527	4.023	3.896	3.784	3.512	4.328	3.995	4.121	4.185	4.198	4.184	4.184
Romanian leu	n/a	3.621	3.526	3.335	3.683	4.240	4.212	4.239	4.459	4.419	4.444	4.445
Swedish krona	9.124	9.282	9.254	9.250	9.615	10.619	9.537	9.030	8.704	8.652	9.099	9.354
UK pound sterling	0.679	0.684	0.682	0.684	0.796	0.891	0.858	0.868	0.811	0.849	0.806	0.726
Non-EU												
Australian dollar	1.6905	1.632	1.6668	1.6348	1.7416	1.7727	1.4423	1.3484	1.2407	1.3777	1.4719	1.4777
Icelandic krona	87.150	78.210	87.920	87.690	127.480	172.730	161.950	161.490	160.930	162.200	154.850	146.305
Japanese yen	134.440	136.850	146.020	161.250	152.450	130.340	116.240	110.960	102.490	129.660	140.310	134.310
Norwegian krone	8.370	8.009	8.047	8.017	8.224	8.728	8.004	7.793	7.475	7.807	8.354	8.9496
Russian rouble	35.819	35.188	34.112	35.018	36.421	44.138	40.263	40.885	39.926	42.337	50.952	68.072
Turkish lira	n/a	1.677	1.809	1.787	1.906	2.163	1.997	2.338	2.314	2.534	2.907	3.0255
US dollar	1.244	1.244	1.256	1.371	1.471	1.395	1.326	1.392	1.285	1.328	1.329	1.110

Source: European Central Bank

1) Time series breaks:

2) The series has been revised for:
- Icelandic krona

3) Notes:
- For further details on the methodologies, please see "Annex: Explanatory Note on data".
- n/a : figure not available.

* For Iceland, the source for end-of-year was Bloomberg.

Annex: Explanatory Note on Data

A. The Mortgage Market

1. Total Outstanding Residential Loans, Total amount, end of the year, EUR million

Total residential loans on lender's books at the end of the period. The definition of residential loans can vary somewhat across EU28 countries, depending on the collateral system and the purpose of the loans. Some countries only integrate secured residential loans, while some others include both secured and non-secured loans. In some countries, this collateral is generally the property, whilst some others favour a system of personal guarantees.

Regarding the purpose, a few countries exclude residential loans whose purpose is above all commercial (such as purchasing a building to let). In addition, there are some methodological differences across EU28 countries regarding the statistical treatment of loans made for renovations of existing dwellings: under some assumptions, some of these loans can be considered as consumption loans.

The conversion to EUR is based on the bilateral exchange rate at the end of the period (provided by the European Central Bank).

2. Change in Outstanding Residential Loans, End of period, EUR million

Year-on-year changes in Table 2. It also corresponds to new residential loans advanced during the period minus repayments.

3. Gross Residential Loans, Total Amount, EUR million

Total amount of residential loans advanced during the period. Gross lending includes new mortgage loans and external remortgaging (i.e. remortgaging with another bank) in most countries. Internal remortgaging (i.e. remortgaging with the same bank) is not included, unless it is otherwise stated.

The conversion to EUR is based on the average bilateral exchange rate over the given year (provided by the European Central Bank).

Denmark: Denmark the figure does not include second homes.
Italy: Includes the total value of residential loans during the period, including new lending and remortgaging/refinancing of existing loan on same property.
Poland: The estimated value of newly granted loans was based on increases in the volume of loans to households adjusted for loan amortization and flows between the foreign currency loan portfolio and the zloty loan portfolio; the entire banking system was taken into account, including credit unions.
Spain: Total amount of loans and credits to households.
Sweden: The figures covers only gross lending by mortgage institutions. New mortgage lending from banks are not included.

4. Representative Interest Rates on New Mortgage Loans, %

This series aims at providing the most representative figures on interest rates on mortgage loans in the EU 28 countries and beyond. For most of these countries, the source of the data is the European Central Bank (ECB), which in turn collects data from the respective national central bank. The ECB's definition of the interest rate reported is the following:

"Dataset name: MFI Interest Rate Statistics ; BS reference sector breakdown: Credit and other institutions (MFI except MMFs and central banks) ; Balance sheet item: Lending for house purchase excluding revolving loans and overdrafts, convenience and extended credit card debt ; MFI interest rate data type: Annualised agreed rate (AAR) / Narrowly defined effective rate (NDER) ; BS counterpart sector: Households and non-profit institutions serving households ; Currency of transaction: Euro ; IR business coverage: New business"

The data provided normally refers to weighted averages.

Below is a list of countries for which the above does not apply (at least in part):
Bulgaria: Weighted average of interest rates on loans for house purchase, excluding revolving loans and overdrafts, convenience and extended credit card debt, BGN (the monthly data is based on the average of observations through the period); Source: Bulgarian National Bank (BNB).
Croatia: Weighted average interest rate on HRK housing credits indexed to foreign currency (to households); Source: Croatian National Bank.
Czech Republic: Weighted average mortgage rate on loans to households for house purchase; Source: Hypoindex until 2012; Czech National Bank from 2013.
Denmark: Data reflects interest rates fixed up to 12 months on mortgage loans from mortgage banks
Germany: Initial fixed period interest rate between 5 and 10 years on loans for house purchase, excluding revolving loans and overdrafts, convenience and extended credit card debt, EUR (the monthly data is based on the average of observations through the period); Source: Deutsche Bundesbank.
Greece: Initial fixed period interest rate up to 1 year on loans for house purchase, excluding revolving loans and overdrafts, convenience and extended credit card debt, EUR (the monthly data is based on the average of observations through the period); Source: National Bank of Greece.
Hungary: Weighted average rate of housing purpose residential loans with different interest rate periods. The data is the average rate over the year. Source: National Bank of Hungary.
Lithuania: Total initial rate fixation on loans for house purchase; Source: Bank of Lithuania.
Luxembourg: Initial fixed period interest rate up to 1 year on loans for house purchase; Source: Central Bank of Luxembourg.
Malta: Weighted average of interest rates on loans for house purchase to households and NPISH; Source: Central Bank of Malta.
Poland: Weighted average interest rate on housing loans; Source: National Bank of Poland.
Romania: Mortgage loans granted in EUR with a maturity of 10 years or more with a charged rate fixed for 1 year; Source: National Bank of Romania.
Spain: Initial fixed period interest rate up to 1 year on loans for house purchase, excluding revolving loans and overdrafts, convenience and extended credit card debt, EUR, (the monthly data is based on the average of observations through the period); Source: European Central Bank.
Sweden: Housing credit institutions' lending rates on new agreements with variable interest rates, to Swedish households (incl. NPISH) and non-financial corporations. Variable interest rates are defined as interest rates up to 3 months fixed interest rates.
United Kingdom: Weighted average interest rate on loans secured on dwellings, GBP; Source: Bank of England.
Iceland: Average of the lowest mortgage interest rates provided by lending institutions for indexed housing loans; these mortgage interest rates are real mortgage interest rates (nominal mortgage interest rates adjusted for CPI inflation).
Japan: Since the Japanese Fiscal Year 2003 the statistics depicted is the average rates of monthly lowest interest rates of Flat 35 of which the maturity is 21-35 years. Flat35 is a long term fixed rate mortgage which is provided by the securitization business of Japan Housing Finance Agency.
Russia: Weighted average interest rates of total new housing mortgage lending in RUB; Source: Central Bank of Russia.
Turkey: Weighted average interest rates for banks' loans in TYR; Source: Central Bank of the Republic of Turkey.
United States: Contract interest rate on 30-year, fixed-rate conventional home mortgage commitments. Source: Federal Reserve.

5. Average amount of Mortgage Loan, in EUR

This series aims at providing an average figure of the amount of mortgage loans a prospective homeowner is granted in the various countries.
Denmark: The statistics captures values of owner occupation from mortgage banks.
Germany: The statistics captures the average amount of a mortgage for the purchase of a second hand single family house.
Slovakia: The statistics has been constructed by dividing the total volume of gross residential loans of a given year by the total number of concluded contracts and is based on data of the Central Bank.
UK: This figure represents the median advance made to home-owners for house purchase activity. It excludes loans made for the purpose of buy-to-let, although the figures are not that different from one another.
Iceland: The downsize of 2015 figures can be explained by the partial remortgaging due to government financed prepayment on selected loans, which spurred a large number of small mortgages in the beginning of that year.
Japan: Flat35 data for detached houses. Flat35 is a long term fixed rate mortgage which is provided by the securitisation business of Japan Housing Finance Agency. The data is avaliable only from Japanese Fiscal Year 2004. Entire market data are not available.

6. Total Outstanding Non-Residential Mortgage Loans, Total Amount, end of the year, EUR million

Total non-residential loans on lender's books at the end of the period. Typically, these loans are the mortgage loans whose main purpose is not residential. The sum of "Total Outstanding Residential Loans" and "Total Outstanding Non-Residential Mortgage Loans" gives the total outstanding housing loans.

7. Total Outstanding Residential Loans to GDP ratio, %

Total Outstanding Residential Loans is provided by the European Mortgage Federation (Table 1). GDP at current prices is provided by Eurostat (Table 27).

8. Total Outstanding Residential Loans to Disposable Income of Households Ratio, %

Total Outstanding Residential Loans is provided by the European Mortgage Federation (Table 1). Data on Disposable Income of Households at current prices is provided by the European Commission (AMECO Database) (Table 28).

9. Total Outstanding Residential Loans per Capita, Population over 18, EUR

Total Outstanding Residential Loans is provided by the European Mortgage Federation (Table 1). Data on population is provided by Eurostat and the US Bureau of Census, and concerns the population whose age is 18 years or more (Table 29).

B. The Housing Market

10. Owner Occupation Rate, %

Distribution of population by tenure status: owner; Source: Eurostat.

11. Building Permits, Number Issued

A building permit is an authorisation to start work on a building project. As such, a permit is the final stage of planning and building authorisations from public authorities, prior to the start of work. In Hypostat, the building permit concerns only dwellings.

12. Housing Starts, Number of projects started per year

Number of new residential construction projects that have begun during a given period. Housing Starts is usually considered to be a critical indicator of economic strength (since it has an effect on related industries, such as banking, the mortgage sector, raw materials, employment, construction, manufacturing and real estate).

13. Housing Completions, Number of projects completed per year

Number of new residential construction projects that have been completed during a given period. Housing Completions is directly integrated into the dwelling stocks and, as such, is a determinant of the housing supply.

14. Real Gross Fixed Investment in Housing, Annual % change

Real Gross fixed capital investment in housing is measured by the total value of producers' acquisitions, less disposals, of new dwellings during the accounting period; Source: Eurostat, OECD.

15. Total Dwelling Stock, Thousand units

According to the "1993 SNA" (System of National Account), dwellings are buildings that are used entirely or primarily as residences, including any associated structures, such as garages, and all permanent fixtures customarily installed in residences; movable structures, such as caravans, used as principal residences of households are included.

For many countries, the yearly change in total dwelling stock is above the number of yearly completions because these two variables have been created with different methodologies.

16. Unoccupied Dwelling Sock

The statistics, except for some countries, is provided by the Eurostat Census in 2011.

17. Number of Transactions

Total number of new or second hand dwellings purchased or transferred in the period, including those occupied for the first time.

The national methodologies used to calculate this index are the following:

EU28
Belgium: transactions on second hand houses only.
Croatia: number of new dwellings purchased.
Denmark: excludes self-build.
Finland: 2000-2007 are estimates of Federation of Finnish Financial Services (FFI), calculated by utilising the average housing completions of the years 2008-2014.
France: new apartments as principal and secondary residence or rental.
Ireland: estimate based on mortgage approvals until 2011.
Latvia: new or second hand real estate purchased or transferred, including those occupied for the first time.
Netherlands: includes commercial transactions.
Romania: includes commercial transactions.
Sweden: from year 2000, not only one-family homes are included in the transaction figures but also apartment transactions.

NON EU28
USA: number of existing home sales.

18. Nominal House Prices Indices, 2006=100

Indices computed to reflect the changes in house prices observed over the period. Eurostat data is used for a number of countries. The data description is as follows:

Eurostat: House Price Indices (HPIs) measure inflation in the residential property market. The HPI captures price changes of all kinds of residential property purchased by households (flats, detached houses, terraced houses, etc.), both new and existing. Only market prices are considered, self-build dwellings are therefore excluded. The land component of the residential property is included. These indices are the result of the work that National Statistical Institutes (NSIs) have been doing mostly within the framework of the Owner-Occupied Housing (OOH) pilot project coordinated by Eurostat.

For the countries for which Eurostat data is not employed, the following national methodologies are used to calculate the published indices:

EU28
Austria: The RPPI for Vienna and for Austria excluding Vienna (regional breakdown) is a so-called "dummy index." It is calculated on the basis of the euro price per square meter for new and used condominiums and for single-family houses. The dummy index is calculated by Vienna University of Technology on the basis of data provided by the Internet platform Ametanet of the Austrian real estate software company EDI-Real. The calculation uses a hedonic regression model with a fixed structure over time. This approach may produce biased estimates if the effects of the variables change over time. Source: OeNB.
Bulgaria: annual average market price index of dwellings, flats in the district centres (new flats are excluded); Source: National Statistical Institute.
Croatia: the average prices per m^2 of new dwellings sold.
Cyprus: The indices are based on property valuation data collected since 2006 by the contracted banks, which receive the relevant information from independent property surveyors in connection with mortgage transactions, such as housing loans, mortgage refinancing and mortgage collateral. The data, which are representative of the Cyprus property market, cover all the areas under the effective control of the Republic of Cyprus (Nicosia, Limassol, Larnaca, Paphos and Famagusta) and refer to residential properties (houses and apartments). Source: Central Bank of Cyprus.
Czech Republic: Index of realised new and second-hand flat prices. New flats published for Prague only. Source: Czech Statistical Office.
Denmark: The House Price Statistics are based on statements of properties offered for sale on the internet and registered as sold in the public Sales and Valuation Register, SVUR, or the joint municipal property register, ESR.
Estonia: New and existing dwellings, whole country; Source: Estonian Statistics Database.
Finland: The statistics on prices of dwellings in housing companies are compiled from the Finnish Tax Administration's asset transfer tax data. The preliminary data on monthly statistics include around two-fifths of all housing transactions and quarterly statistics around two-thirds, though coverage varies by area. For transactions of old dwellings in housing companies the coverage of the annual statistics is almost complete. These statistics describe the levels of the prices and changes in the prices of single-family houses and single-family house plots quarterly and annually. Source: Statistics Finland.
France: The index of housing prices (IPL) is a quarterly index, average annual base 100 in 2010. The IPL is a transaction price index measuring, between two consecutive quarters, the pure evolution of prices of homes sold. For a given quarter, the index is obtained as the weighted average of two indices: (1) the Notaries - INSEE index of existing homes; and (2) the price index for new housing. Source: National Institute of Statistics and Economic Studies (INSEE).
Germany: VDP Price Index for Owner Occupied Housing, calculated by vdpResearch.
Greece: Urban areas only.

Hungary: The house price changes observed over the period are based on the data of the FHB house price index. The index is based on real transactions and comprises newbuilt and existing (used) residential properties (flats, detached houses, terraced houses). The methodology for the calculations is the hedonic regression model ,that is also used by European institution (Eurostat, ECB). The index shows the annual avg. change compared to the base year of 2006. All dwellings, FHB house price Index.
Italy: Source: Bank of Italy, Istat, Revenue Agency Property Market Observatory (Osservatorio del mercato immobiliare), Consulente Immobiliare and Tecnoborsa.
Poland: The data contains average transaction prices on secondary market - 7 biggest cities in Poland, weighted with the market housing stock of the city. Analysed cities: Gdańsk, Gdynia, Kraków, Łódź, Poznań, Warszawa, Wrocław.
Portugal: Annual average. Source: Statistics Portugal.
Romania: Source: National Institute of Statistics.
Slovenia: existing dwellings; y-o-y variation in the last quarter of each year; Source: Statistical Office of the Republic of Slovenia.
Spain: all dwellings; Source: Ministerio de foment.
Sweden: one- and two-dwellings buildings annual average.
UK: All dwellings. Source: Office for National Statistics

NON EU28
Australia: Residential Property Price index, average of the eight largest cities. Source: Australian Bureau of Statistics
Japan: The indices are based on monthly prices for detached houses. Source: Ministry of Land Infrastructure, Transport and Tourism.
Russia: y-o-y variation in the last quarter of each year.
Turkey: Data on house prices, in percentage change over previous period. Source: OECD.
USA: Data on house prices, in percentage change over previous period. Source: OECD.

19. Nominal House Price Index – Cities (100=2006)

Indices computed to reflect the changes in house prices observed over the period in the capital cities and in the largest cities of a given country. The provided statistics are based on heterogeneous data sources, methodologies and also areas (considering either the city as such or also the surrounding region). The indexes provided in this section have to be compared with caution. The following national methodologies (if explanation available) have been applied for the calculation:

EU 28
Austria: Residential Property price index for overall dwellings in Vienna
Bulgaria: annual average market price index of dwellings, flats in the district centres (new flats are excluded); Source: National Statistical Institute.
Croatia: the average prices per m^2 of new dwellings sold. Source: Croatian Bureau of Statistics
Cyprus: The indices are based on property valuation data collected since 2006 by the contracted banks, which receive the relevant information from independent property surveyors in connection with mortgage transactions, such as housing loans, mortgage refinancing and mortgage collateral. The data is available at district level for Nicosia, Limassol, Larnaca, Paphos and Famagusta and refer to residential properties (houses and apartments). Source: Central Bank of Cyprus.
Denmark: The House Price Statistics are based on statements of properties offered for sale on the internet and registered as sold in the public Sales and Valuation Register, SVUR, or the joint municipal property register, ESR. Data is available until postal code level. Source: Association of Danish Mortgage Banks
Finland: The statistics on prices of dwellings in housing companies are compiled from the Finnish Tax Administration's asset transfer tax data. The preliminary data on monthly statistics include around two-fifths of all housing transactions and quarterly statistics around two-thirds, though coverage varies by area. For transactions of old dwellings in housing companies the coverage of the annual statistics is almost complete. These statistics describe the levels of the prices and changes in the prices of single-family houses and single-family house plots quarterly and annually. Source: Statistics Finland.
France: the statistics considers only apartments. Source: National Institute of Statistics and Economic Studies
Germany: VDP Price Index for Owner Occupied Housing, calculated by vdpResearch.
Hungary: The house price changes observed over the period are based on the data of the FHB house price index. The index is based on real transactions and comprises newbuilt and existing (used) residential properties (flats, detached houses, terraced houses). The methodology for the calculations is the hedonic regression model ,that is also used by European institution (Eurostat, ECB). The index shows the annual avg. change compared to the base year of 2006. All dwellings, FHB house price Index.
Ireland: All residential properties. Source: Central Statistical Office
Poland: average transaction prices on secondary market
Slovakia: prices Euro per square metre. Source: Central Bank of Slovakia
Slovenia: captures only existing flats in Ljubljana. Source: Statistical Office of the Republic of Slovenia.
Spain: the indexes refer to the regions around these cities calculated with valuation prices. Source: Ministerio de foment.
Sweden: One- or two-dwelling buildings for permanent living. Source: Statistics Sweden
UK: All dwellings. Source: Office for National Statistics

Non EU 28
Australia: Residential Property Price index. Source: Australian Bureau of Statistics
Iceland: total residential property. Source: Statistics Iceland
Japan: The indices are based on monthly prices for detached houses. The sources are the Associations of Real Estate Appraisers of respectively Tokyo, Osaka and Aichi
Norway: Source: Real Estate Norway
Turkey: Source: Central Bank of the Republic of Turkey
US: Source: Federal Housing Finance Agency

20. Change in Nominal House Prices, Annual % change

The annual percentage change computed using the house price indices found in Table 16.

21. Nominal House Price to Disposable Income of Households Ratio, 2006=100

This indicator is a measure of housing affordability. The nominal house price to disposable income ratio is also used by the OECD to provide a measure of housing affordability. However, this index is partially biased since it does not integrate financing costs: mortgage interest rate, taxes, notary costs, etc.

C. Funding of the Mortgage Market

22. Total Covered Bonds Outstanding, Backed by Mortgages, EUR million

Covered bonds are a dual recourse debt instruments issued by credit institutions and secured by a cover pool of financial assets, typically composed of mortgage loans, public-sector debt or ship mortgage. Three different models of covered bonds co-exist in Europe:

- Direct/on-balance issuance (German model): the originator issues the covered bonds and the assets are ring-fenced on the balance sheet of the originator.
- Specialist issuer (French model): an originator establishes a credit institution subsidiary which issues the covered bonds and holds the collateral.
- Direct issuance with guarantee (UK model): the originator issues the covered bonds, which are guaranteed by a special purpose entity of the originator, which holds the cover pool assets.

25. Total Residential Mortgage-Backed Securities (RMBS) Outstanding, EUR million

A RMBS is a derivative whose value is derived from home equity loans and residential mortgages. In line with the other mortgage-backed securities, the owner is entitled to a claim on the principal and interest payments on the residential loans underpinning the security.

D. Macroeconomic Indicators

27. GDP at Current Market Prices, EUR million

Within the approach of GDP at current prices, the fundamental principle is that output and intermediate consumption is valued at the prices current at the time the production takes place. This implies that goods withdrawn from inventories by producers must be valued at the prices prevailing at the times the goods are withdrawn, and consumption of fixed capital in the system is calculated on the basis of the estimated opportunity costs of using the assets at the time they are used, as distinct from the prices at which the assets were acquired.

28. Gross Disposable Income of Households, EUR million

According to the "1993 SNA", Gross Disposable Income of Households is the sum of household final consumption expenditures and savings (minus the change in net equity of households in pension funds). It also corresponds to the sum of wages and salaries, mixed income, net property income, net current transfers and social benefits other than social transfers in kind, less taxes on income and wealth and social security contributions paid by employees, the self-employed and the unemployed.

The indicator for the household sector includes the disposable income of non-profit institutions serving households (NPISH).

EMF Hypostat 2016

EUROPEAN MORTGAGE FEDERATION