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HYPOSTAT 2017

HYPOSTAT **2017** | A REVIEW OF EUROPE'S MORTGAGE AND HOUSING MARKETS

European Mortgage Federation
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Dear Reader,

In recent years, housing and mortgage markets have been increasingly present in the public debate in a wide range of contexts, from social and demographic challenges to macroprudential tools put in place in order to guarantee financial stability. Transparent and reliable information on the main trends, developments and realities in Europe are essential to learn from the past, to understand the current challenges and to be able to draw some conclusions for the future of European housing and mortgage markets according to the evolving socio-economic landscape.

The quantitative analysis presented in this publication aims to capture the trends and attitudes of European lenders and borrowers and highlight 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. In addition, if, on the one hand, the purchase of a house represents the most significant acquisition an individual will ever make, on the other hand mortgage and housing markets are deeply influenced by the individual's choice about where, when and what types of dwellings he/she will buy, which as a consequence has an impact on the decisions relating to the real estate market in the medium to long term.

Against this background, we are delighted to present you the 2017 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. 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.

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 the ongoing debate of improving financial stability in Europe, with outstanding residential mortgage accounting for 47% of EU GDP, the financing of residential real estate is undeniably at the centre of the discussion. One of the key indicators for assessing the riskiness of a mortgage loan is the Loan-to-Value (LTV) ratio. As straightforward as it seems, this ratio can be calculated and interpreted in several different ways. In this edition, we contribute to this discussion by presenting an article prepared by European DataWarehouse (EDW) on the various ways the LTV ratio can be assessed in certain countries of the EU together with its policy implications. The article also takes advantage of the granular database of EDW to provide empirical findings on the relationship between LTV and the probability of default.

Considering that in the past years house prices have increased substantially and that wages, especially in the most desirable areas, have not increased at the same pace, the issue of housing affordability is high on the political agenda of EU Member States. With this in mind, our second external article, prepared jointly by the Banking & Payments Federation Ireland and UK Finance, presents the results of a survey on an identikit of first time buyers (FTBs) in Ireland and the UK. It shows that over the past years, in general, the age of FTBs in these two countries has increased and they increasingly face challenges to 'get on the housing ladder' with knock-on effects for policy makers.

The EMF-ECBC, also on behalf of the EMF Research & Data Committee and its Chairman, Kaare Christensen, would like to thank all contributors for making the publication of Hypostat possible and expresses its particular gratitude to them for their support in bringing forward the release date to early 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*

MACROECONOMIC SITUATION

- For the first time since the beginning of the crisis no country was in recession in 2016. Nevertheless, patterns were very heterogeneous, with Ireland and Malta's economies growing by more than 5%, while others, such as Greece, ended the year with a close to 0% growth rate.
- In aggregate terms, the European Union produced positive **GDP** growth of 1.9% in 2016, thus continuing the positive progress of 2015 (2.2%). The Euro area registered growth of 1.8% in 2016. Public finances continued, in aggregate terms, along the deleveraging path observed since 2015, though also here differences between Member States are visible in terms of stocks and flows.
- **Unemployment** decreased in the EU by 0.8 pps in 2016. Youth unemployment (15-24 years old) also decreased by 1.8 pps reaching 18.6% in 2016. However, yet again, there are differences between Member States in this area.
- In 2016 **inflation** started to pick up both in the Euro area and in the non-Euro area Member States.

HOUSING MARKET

- Important for the future challenges of housing market, population projections for the next 50 years show a heterogeneous picture both among and within countries. Besides this development, population flows in 2015 (immigration and emigration) also indicate that countries in central and western Europe and in Scandinavia have seen their population grow. These dynamics will have an important consequence on housing policies in these countries.
- House prices in aggregate terms continued the positive trend of the previous years 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 and only four countries are at a price level below 20% of the 2006 levels.
- 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 London increased by nearly 40pps more than in the rest of the UK, whereas in countries such as Romania, house prices in the capital showed a decrease of nearly 10pps compared to the rest of the country.
- In line with this finding housing affordability in various cities of the EU shows an inverse relationship with the house price developments of the past years.
- Housing supply (as measured by the number of building permits issued, housing projects begun and housing projects completed) confirms the first encouraging signs of 2015 and is picking up.

MORTGAGE MARKETS

- The rate of mortgage lending shows a two-fold picture in 2016. Total outstanding lending in the EU in 2016 decreased by 1.4% with respect to 2015, which was mainly due to the depreciation of the GBP. The Euro area outstanding mortgage market increased by more than 2% in 2016, whereas the non-Euro area decreased by 7%. Not considering exchange rate fluctuations, outstanding residential lending increased by EUR 167 bn.
- The EU mortgage market is dominated by five countries: the UK, Germany, France, the Netherlands and Spain, which accounted for 81% of the overall outstanding residential mortgages in the EU in 2016.
- Some countries contributed more than others to the increase in EU outstanding residential mortgage lending. Germany and France provided the major contribution to the increase in outstanding mortgage lending. At fixed exchange rates, the UK and Sweden also saw an increase in their outstanding mortgage lending.
- Interest rates on mortgage loans appeared to have stopped their downward trajectory. In some jurisdictions interest rates actually started to increase.
- In terms of market structure for different mortgage interest rates, the EU is, again, highly fragmented. Some countries almost exclusively have variable rate mortgages, whereas others rely more on long-term fixed rates, or on a balanced mix.
- There appears to be a general tendency towards fixed rates as borrowers try to lock in the favourable conditions available at this time.

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 2017", focuses on developments up until early 2017[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 29 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".

Below please find a list of the abbreviations and stylistic conventions used throughout the publication:

Q1 2016	first quarter of 2016
bn	billion
bps	basis points
mn	million
pps	percentage points
q-o-q	quarter on quarter
td	thousand
y-o-y	year on year
BGN	Bulgarian Lev
BTL	buy to let
CHF	Swiss Franc
CZK	Czech Koruna
DKK	Danish Krone
DTI	Debt to Income
EC	European Commission
ECB	European Central Bank
EU	European Union
EUR	Euro
FTB	First time buyer
GBP	British Pound
GDP	gross domestic product
HICP	Harmonised Consumer Price Index
HRK	Croatian Kuna
HUF	Hungarian Forint
LGD	Loss Given Default
LTI	Loan to income
LTD	Loan to deposit
LTV	Loan to Value
MFI	Monetary and Financial Institution
NPL	Non-Performing Loan
PD	Probability of Default
PLN	Polish Zloty
RMBS	Residential Mortgage Backed Security
RON	Romanian Leu
SEK	Swedish Krone
USD	United States Dollar
VAT	Value-added Tax

[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".

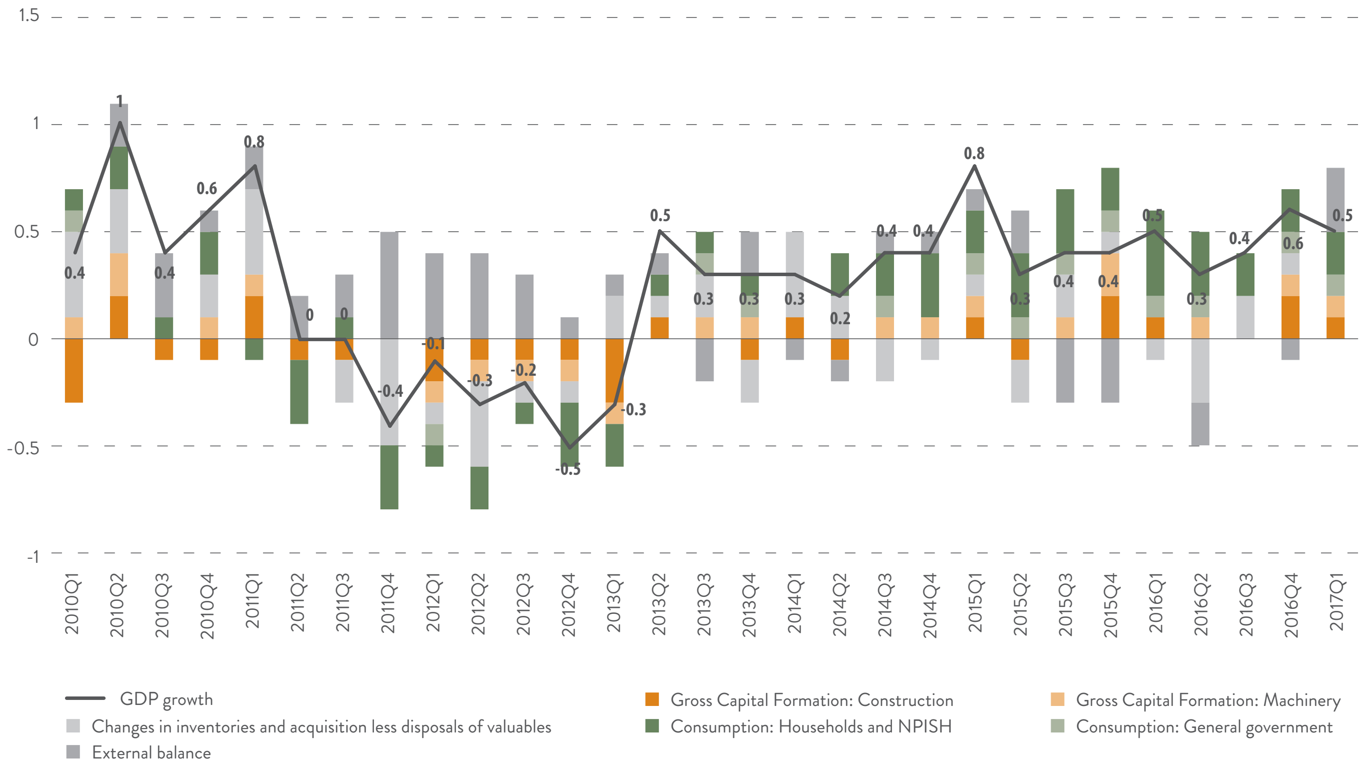
Housing and Mortgage Markets in 2016

MACROECONOMIC OVERVIEW

2016 marked the first year since the financial crisis in which all 28 Member States were not in recession and the European Union (EU) as a whole grew by 1.9% y-o-y. Notwithstanding the solid economic performance, 2016 has been a challenging year for the EU with ongoing political uncertainties. Within the Union, 2016 saw the UK's decision to trigger Article 50 of the Treaty of Lisbon thereby beginning the process of leaving the EU, as well as the rise of movements criticising and questioning what the EU stood and stands for. Outside the Union there were ongoing wars and proxy-wars at its borders, migration from Africa and the Middle East and uncertainty around the intentions of the new administration of the United States. Together, these marked important challenges which have continued into 2017.

Chart 1 shows one of the key drivers of growth in 2016 was private consumption. The gradual increase in demand, improved profit margins, favourable financing conditions and lower pressure to deleverage all helped boost overall investment, even though it still remains subdued.

CHART 1 | QUARTERLY CONTRIBUTORS TO GDP IN THE EURO AREA, PERCENT

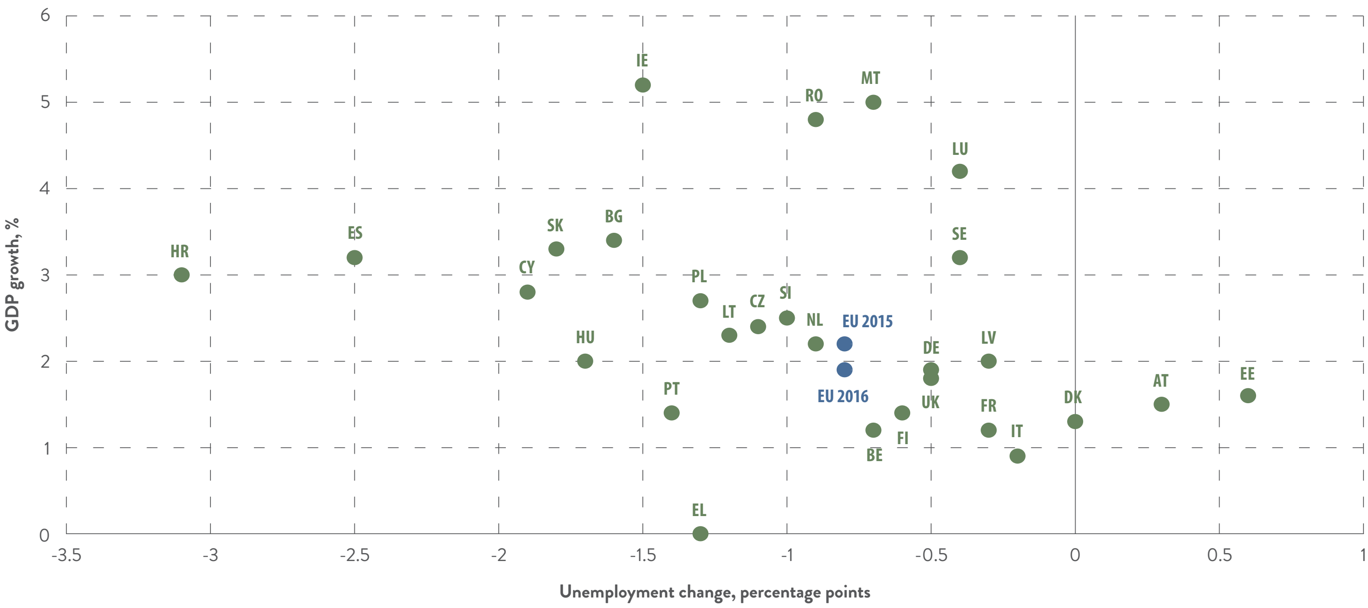


Source: Statistics Data Warehouse – European Central Bank

As well as an increase in the economic growth rate, the EU saw a falling unemployment, leaving the majority of EU Member States in the 'positive' top left quadrant of chart 2 as they experienced an improving growth rate and a fall in the unemployment rate. At the end of 2016, the EU unemployment rate reached 8.2%. The only exceptions to this were Austria and Estonia, which saw their unemployment rate marginally increase. It is worth stressing that unemployment rates across member countries are heterogeneous, ranging from 3.5% in the Czech Republic to 23% in Greece.

However, it has been encouraging to see that countries with a relatively higher level of unemployment, such as Croatia and Spain, have been able to reduce their rates more significantly. However, in the latter case, notwithstanding impressive improvements in the labour market, nearly 1 out of 5 of the workforce is actively looking for a job, the highest figure except for Greece. Ireland continues to be the country in the EU with the highest growth rate thanks also to ongoing relocation of highly technically skilled jobs to the country. Large founding Member States such as France and Italy are struggling to reduce their double-digit unemployment rates, while their growth rates remain subdued, notwithstanding programmes such as the French "Emergency plan for Employment" which provided training for 500,000 unemployed, who by definition will be taken out of the unemployment statistics in the hope of a future job.

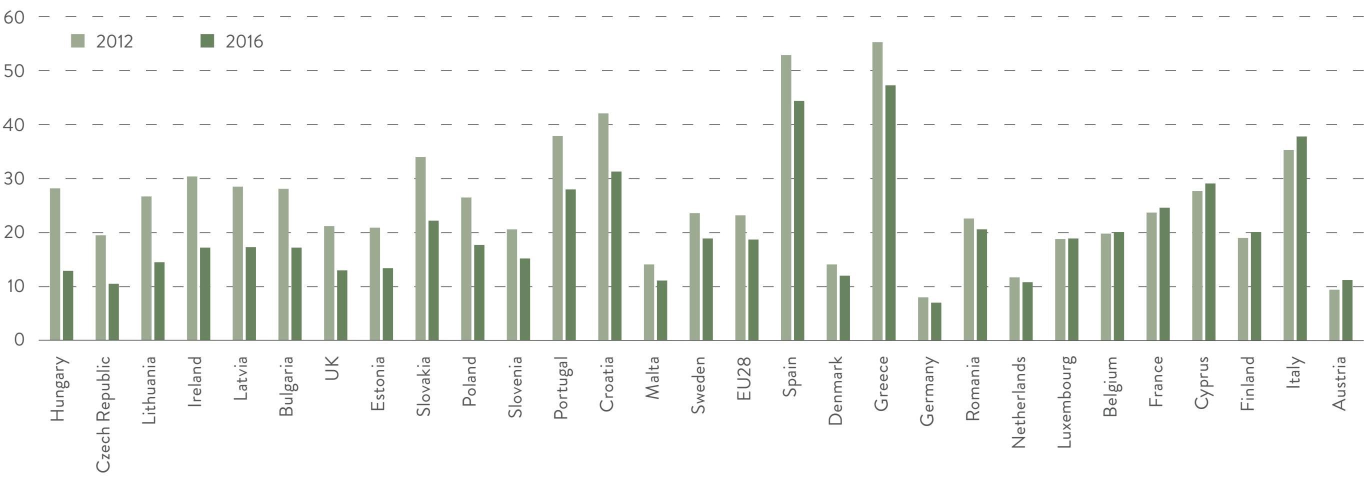
CHART 2 | UNEMPLOYMENT CHANGE AND GDP GROWTH IN 2016 IN PERCENT



Source: Eurostat

Similar to the aggregate unemployment figures, youth unemployment among 18 to 24 year olds over the last 5 years evolved significantly and in a heterogeneous way across the continent. In 2016 in the EU, more than 4 million young people were unemployed, i.e. nearly 19% of the economically active population. This figure has decreased by 4.5 pps since 2012, but long-term youth unemployment is still very high with peaks of nearly 50% in some countries. Looking at the national situations, it can be seen that in general youth unemployment has been reduced in the majority of countries, especially in the Central and Eastern European Countries, in the Baltics and in the Anglo-Saxon countries. Also Portugal, Croatia, Spain and Greece managed to cut their high youth unemployment rates. Germany and the Netherlands together with Austria had the lowest youth unemployment rate, though the former two continue to decrease while the latter increased by 1.8 pp to 11.2% showing an acceleration over the last three years. Large countries such as France and Italy face still relatively high youth unemployment, which is higher than in 2012, but the peak was reached respectively in 2015 and 2014 and the trend here is also decreasing.

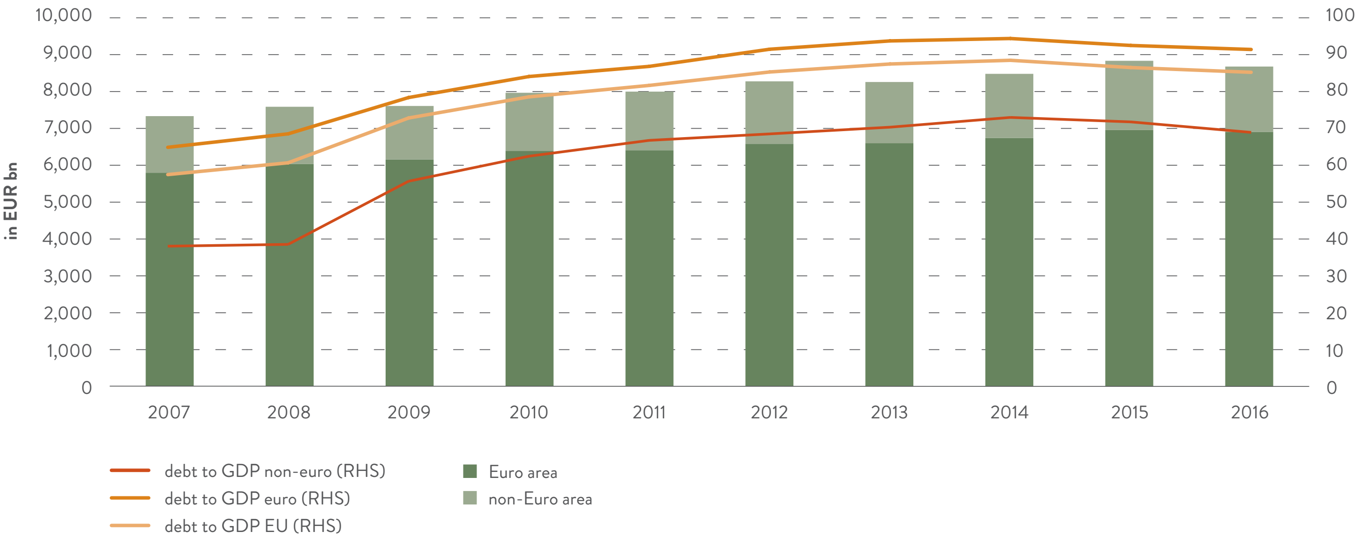
CHART 3 | EVOLUTION OF YOUTH UNEMPLOYMENT (15-24) YEARS FROM 2012-2016



Source: Eurostat

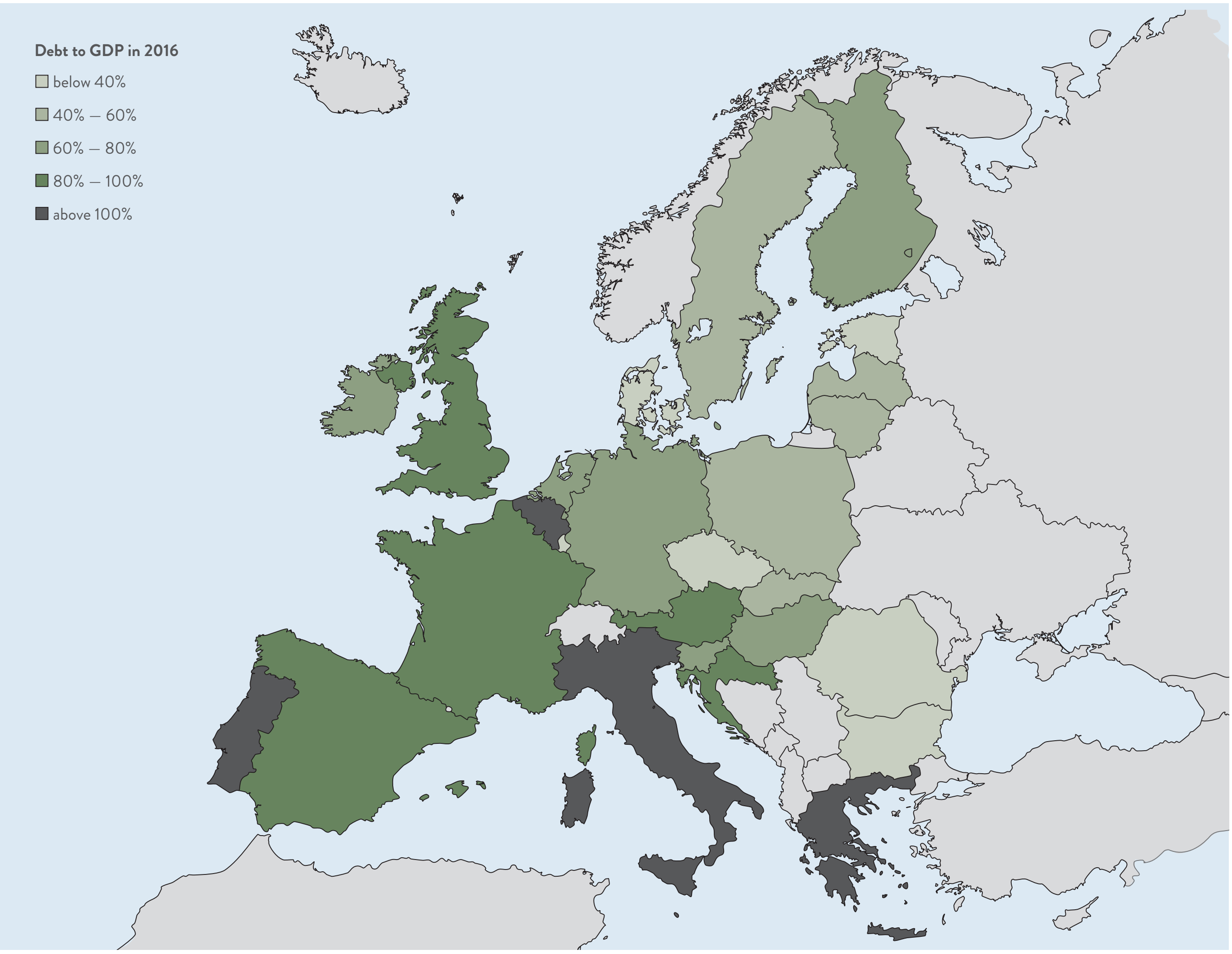
Governments are also benefitting from the low interest rates, the economic recovery and the improved labour markets. As a result of these, they receive more fiscal contributions and disburse in less social transfers, enabling them to continue deleveraging their public finances which reached an 85% debt to GDP ratio in 2016 from nearly 89% two years prior. In any case, there is still significant heterogeneity across countries as map 1 depicting the debt to GDP ratios in the EU shows, thus pointing to different pictures with different challenges for each of the countries.

CHART 4 | GOVERNMENT SPENDING EVOLUTION IN THE EURO-AREA AND IN THE NON-EURO AREA COUNTRIES



Source: AMECO Database, Eurostat

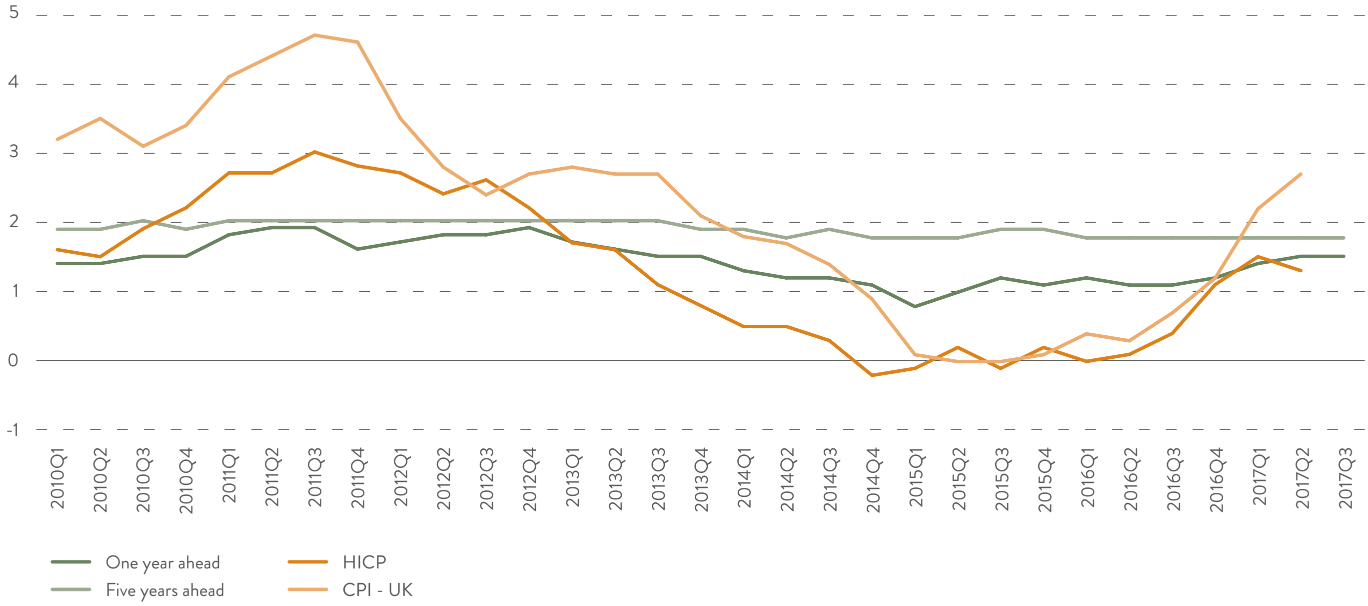
MAP 1 | DEBT TO GDP IN EU 28



Source: Eurostat

Inflation in the Euro area showed some signs of recovery in 2016 with annual inflation[1] reaching 1.1% in December 2016, principally as a result of energy prices and services, bringing the 2% target closer in reach. The aggressive expansionary policy of the ECB appeared finally to be bearing fruit and both within and outside Frankfurt, talk began of an eventual 'tapering' push for an end of the Quantitative Easing and an unwinding of the various purchasing programmes. This was officially stated for the first time at the ECB Governing Council Meeting of 8 December when intentions were announced to curb the monthly purchases under the asset purchase programmes (APP) from EUR 80 bn a month to EUR 60 bn a month from April 2017 onwards. Also in the UK, the largest non-Euro area economy, inflation is starting to pick up in the wake of uncertainties stemming from Brexit.

CHART 5 | HICP IN THE EURO AREA AND CPI IN THE UK AND INFLATION EXPECTATIONS ONE AND FIVE YEARS AHEAD IN THE EURO AREA AS MEASURED BY THE ECB, IN PERCENT



Source: European Central Bank and Bank of England

HOUSING MARKET

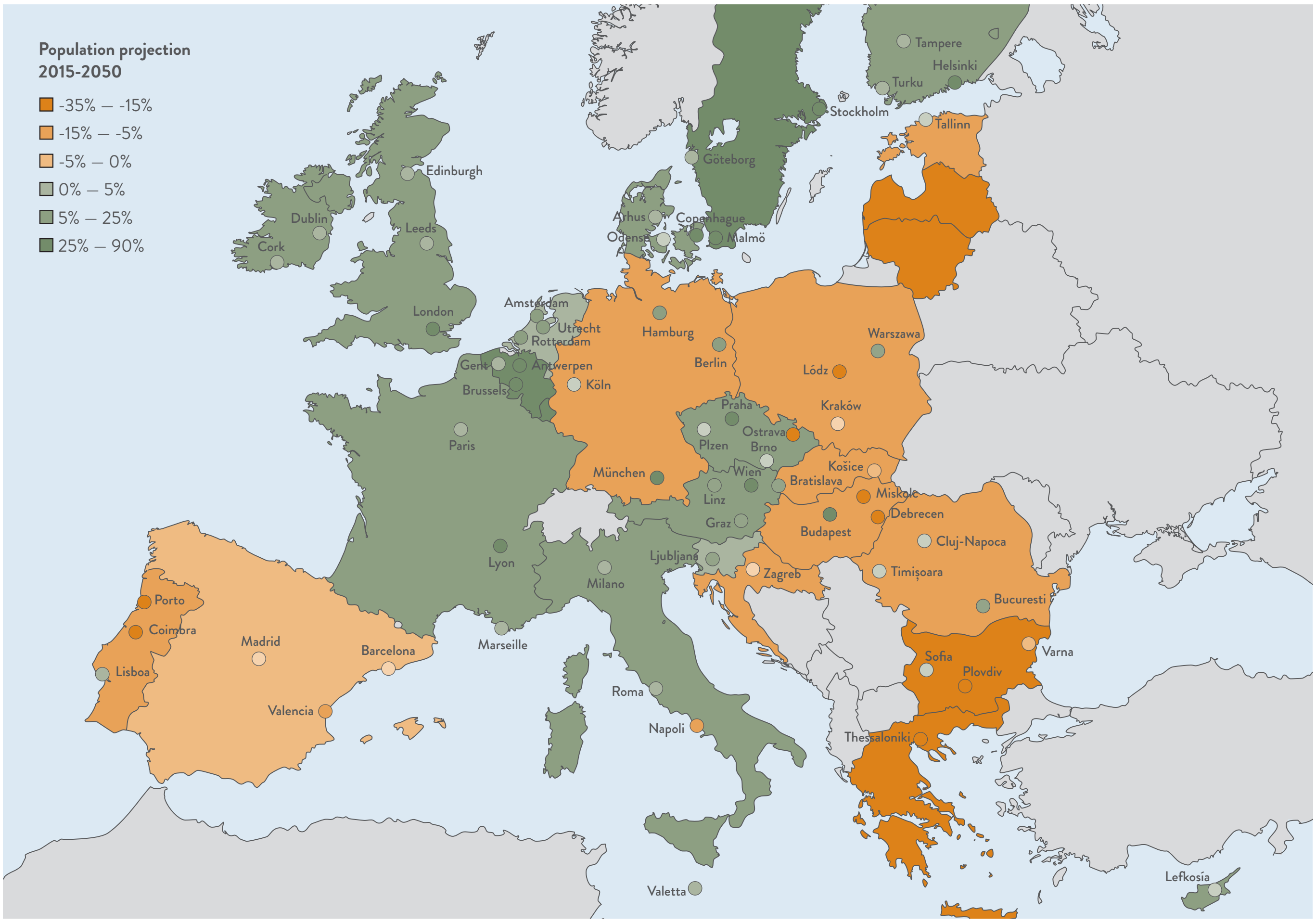
SETTING THE STAGE – DEMOGRAPHIC AND SOCIAL TRENDS IN EUROPE. The housing market aims to match households with housing. This is determined by people's need including where they want to live. Add to this the cultural and legal differences that exist across countries and it is easy to see how the housing market across Europe is diverse both within and between countries. With this in mind, this section is dedicated to presenting considerations regarding the framework in which the housing market in Europe is situated.

Building a house generally takes a considerable amount of time and resources and real estate developers are interested in generating decent returns over a time horizon of at least a couple of decades. To this end, in map 2 the demographic projection in the EU until 2050 is presented both at national and at city level. As can be seen, countries are evolving in different ways with the population of those at the core generally increasing; in fact, some, for example Belgium and Luxembourg, will have experienced increases of over 30% and 90% respectively, while countries more on the periphery are facing harsh population declines due to emigration and an aging population. Germany presents a different picture: notwithstanding the country being the economic motor of the EU at the current time, it is expected to face ongoing demographic decline in the next decades due to a low fertility rate, a declining birth rate as a result of fears of high divorce costs, the lack of adequate day care and the well-known work-life balance dilemma, especially for the female population. A different story emerges for cities in Europe which are facing significant increases, especially in the economically more active regions. Especially in Eastern Europe and also in Germany the cities will grow while the country-side will depopulate, thus placing greater stress on the housing market which will be more concentrated in a small number of high growth areas. A final category of countries, comprising the more peripheral areas of the EU, such as the Iberian Peninsula, South East Europe and the Baltics, will see their populations decrease severely over the next decades, mainly because their more active population is attracted to the more active centres of the continent.

Another more immediate challenge has materialised over the past years in the form of the significant influx of refugees and immigrants in a more broader sense, targeting specific countries. In any case, as depicted on chart 6, the influx of immigrants from non-EU countries is responsible for 47% of immigration in Europe, while the majority of displacement in the continent can be attributed to the movement of EU citizens between countries. Migratory movement shows that Germany, Austria, Sweden and Denmark, compared to their population, experienced the highest influx of non-EU immigrants, also following their open-door policy to support refugees from war-torn areas in the Middle East. Luxembourg and Malta compared to their population also experienced significant immigration and emigration movements in 2016. The principal countries attracting immigrants are

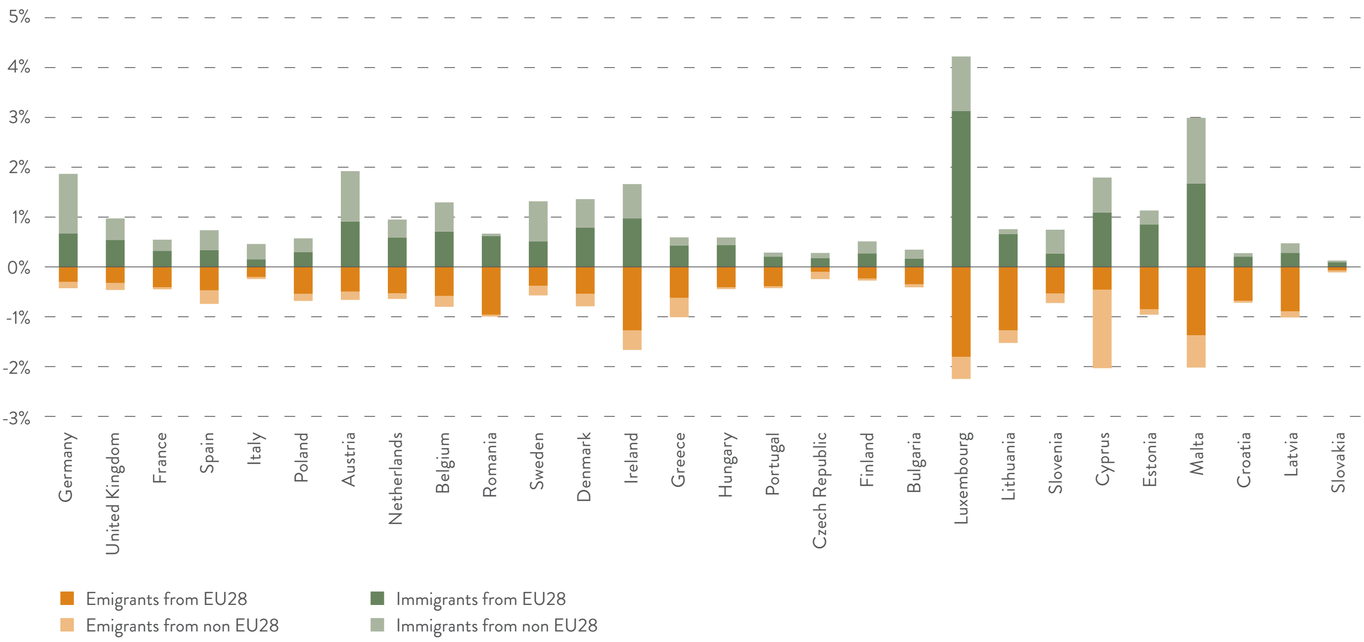
[1] Calculated with the Harmonised Index of Consumer Prices (HICP).

MAP 2 | POPULATION PROJECTION 2015 – 2050 IN EU COUNTRIES AND CITIES



Source: Eurostat

CHART 6 | MIGRATION FLOWS IN 2015, IN PERCENT TO TOTAL POPULATION (ORDERED ACCORDING TO THE ABSOLUTE VALUE OF IMMIGRANTS)

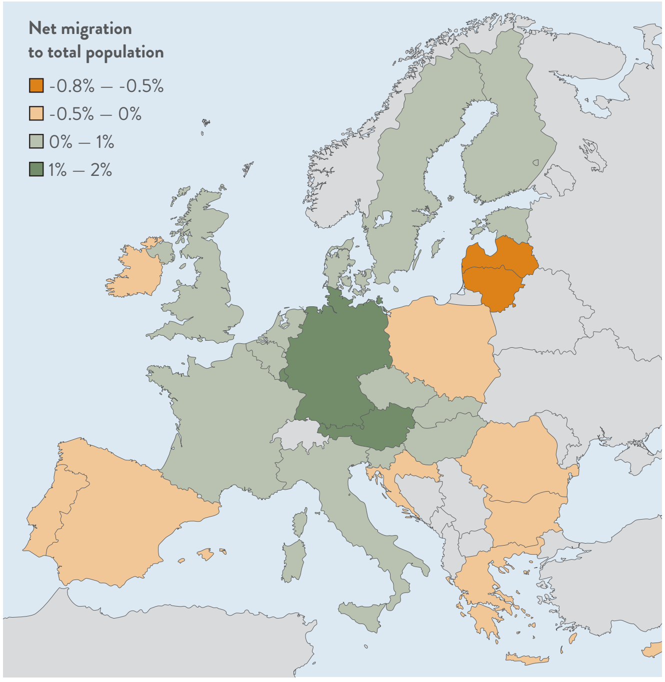


Source: Eurostat

Taking into account both individuals who emigrated and individuals who immigrated to every country, the overall effect as seen in map 3 may not appear too pronounced with peaks of 2% of the population in Luxembourg and 1% in Germany, however, in most of the cases, these individuals principally target cities, which are confronted by this rising challenge. However, notwithstanding the temporary influx of people into Germany, the long-term demographic trends of low birth rates and aging populations will prevail, which is one of the key political topics in the country. The Baltic countries as well as those from Central and Eastern Europe, the South East and the South West saw higher emigration than immigration, which in some cases will bring to severely depopulated areas.

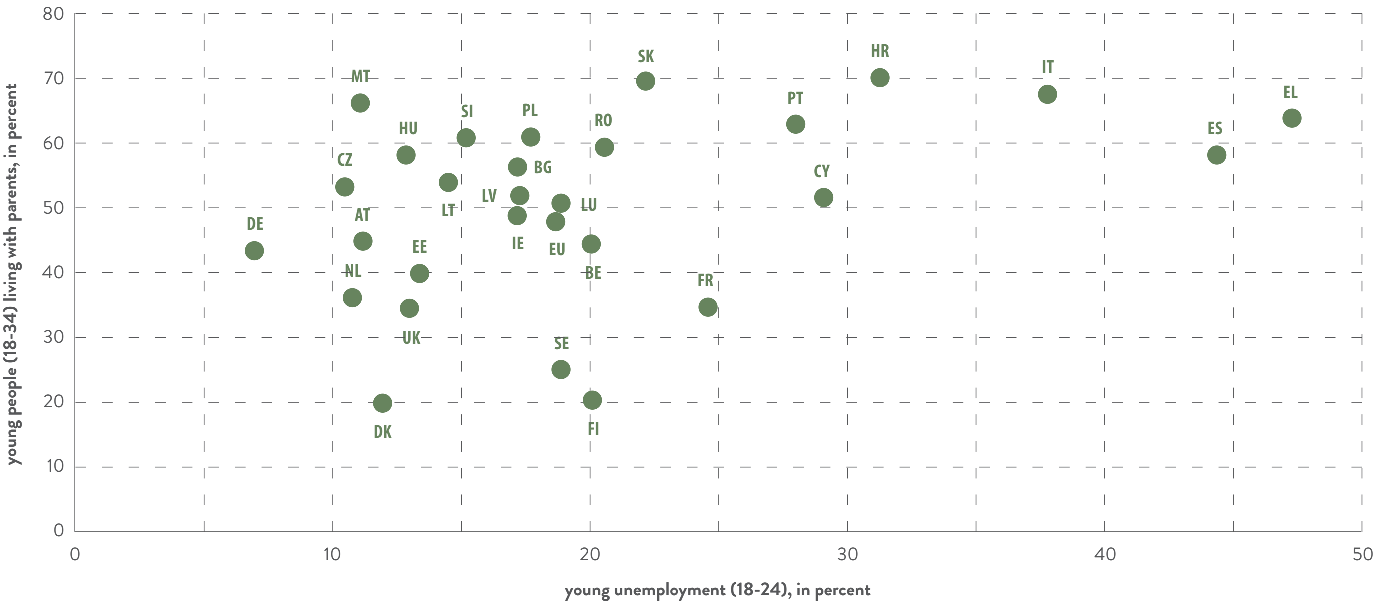
It is also worth considering which types of people are likely to look for a new house. One of the external articles of this year's Hypostat considers the profile and evolution of first time buyers. Remaining on this theme, chart 7 shows the correlation between young unemployed people and the percentage of young people still living with their parents. The chart shows how countries farther away from the origin of the axis will see the age of first time buyers increase due to lack of job opportunities, obliging them to postpone the decision to leave the parental nest. As can be inferred from the chart, this trend can be observed especially in the Mediterranean countries, while in Anglo-Saxon and Scandinavian countries young people typically leave the parental home sooner and are more likely to be in the job market, meaning it is probable that the age of first time buyers in these countries is lower. Of course this discussion must be seen against the heterogeneous background of different cultural attitudes towards buying or renting.

MAP 3 | NET MIGRATION IN 2015



Source: Eurostat

CHART 7 | YOUTH UNEMPLOYMENT AND PROBABILITY OF YOUNG PEOPLE LIVING WITH THEIR PARENTS



Source: Eurostat

TRENDS IN HOUSE PRICES

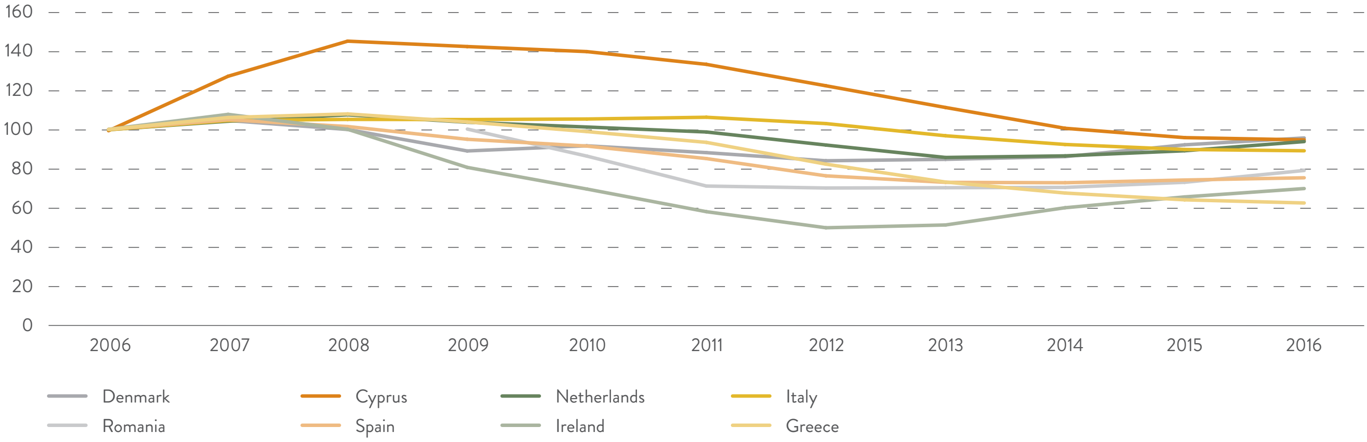
CROSS COUNTRY OBSERVATIONS

As highlighted in the previous section, demographic challenges coupled with heterogeneous economic conditions can in part explain housing demand and the different evolution in house prices throughout the continent. In any case, it should be stressed that, as a general trend, house prices increased nearly everywhere in Europe and the countries where they did not, i.e. Cyprus, Greece and Italy, there was a deceleration in the negative trend. At a national level, as in the previous year, Hungary's house prices grew the most by 17.8% in 2016, followed by the Czech Republic with an increase of 11% over the same period. The German housing market continued its acceleration in 2016, recording a 6%

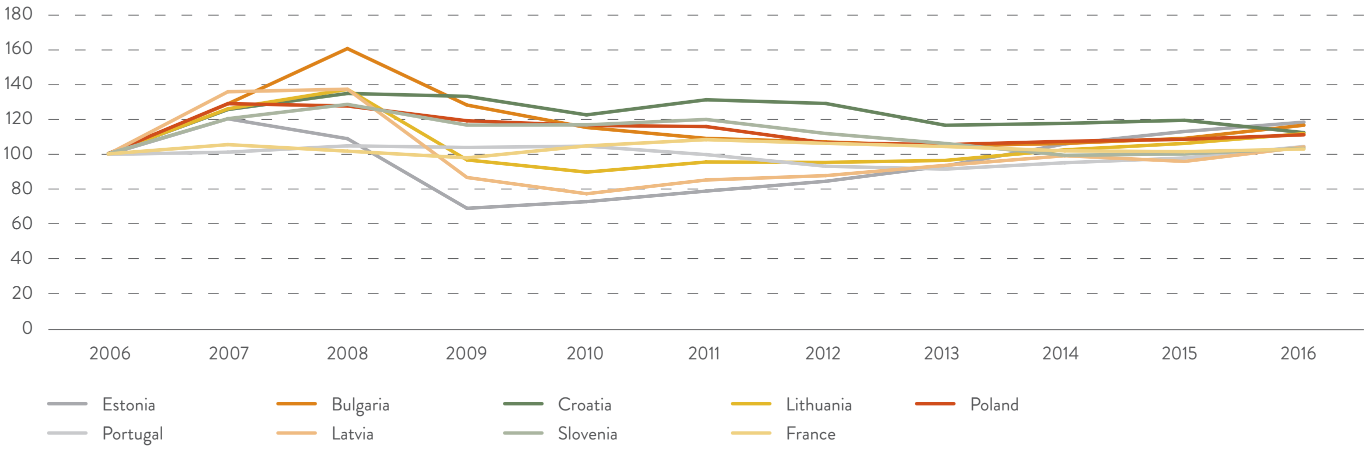
increase in house prices, while in Sweden, after double-digit growth in 2015, house prices decelerated in 2016, although the rate remain at a healthy 8.4% annual increase. House prices in the UK, notwithstanding the uncertainties stemming from its decision to leave the EU, slightly accelerated in 2016, posting a 7.4% annual increase. In 2016 in France, for the first time in 5 years, house prices increased at a national level.

CHART 8 a – c | HPI EVOLUTION BETWEEN 2006 AND 2016 (BASE YEAR 2006)

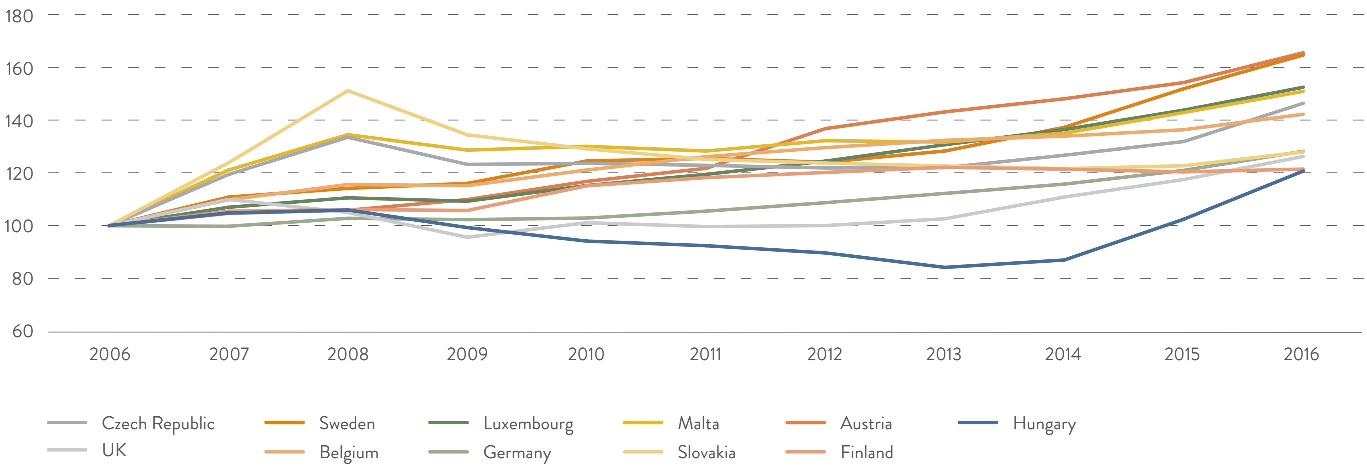
COUNTRIES WITH AN HPI IN 2016 LOWER THAN IN 2006



COUNTRIES WITH AN HPI WHICH GREW UP TO 20% WITH WITH RESPECT TO 2006



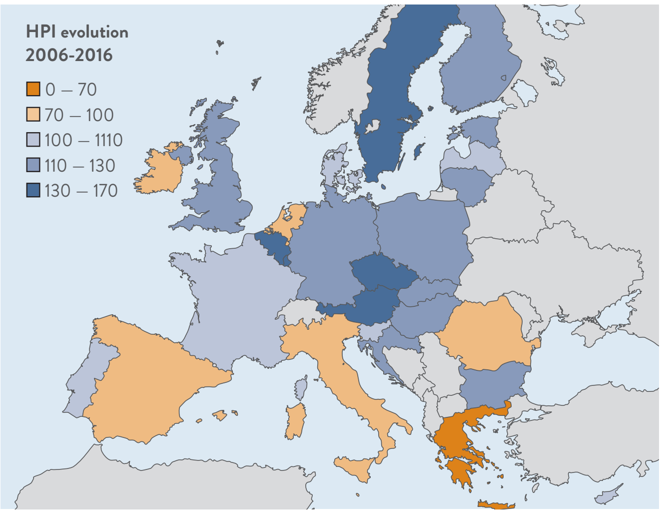
COUNTRIES WITH AN HPI WHICH GREW MORE THAN 30% WITH RESPECT OT 2006



Source: European Mortgage Federation

As seen on the map the majority of countries saw their House Prices increase since 2006.

MAP 4 | HPI EVOLUTION 2006-2016

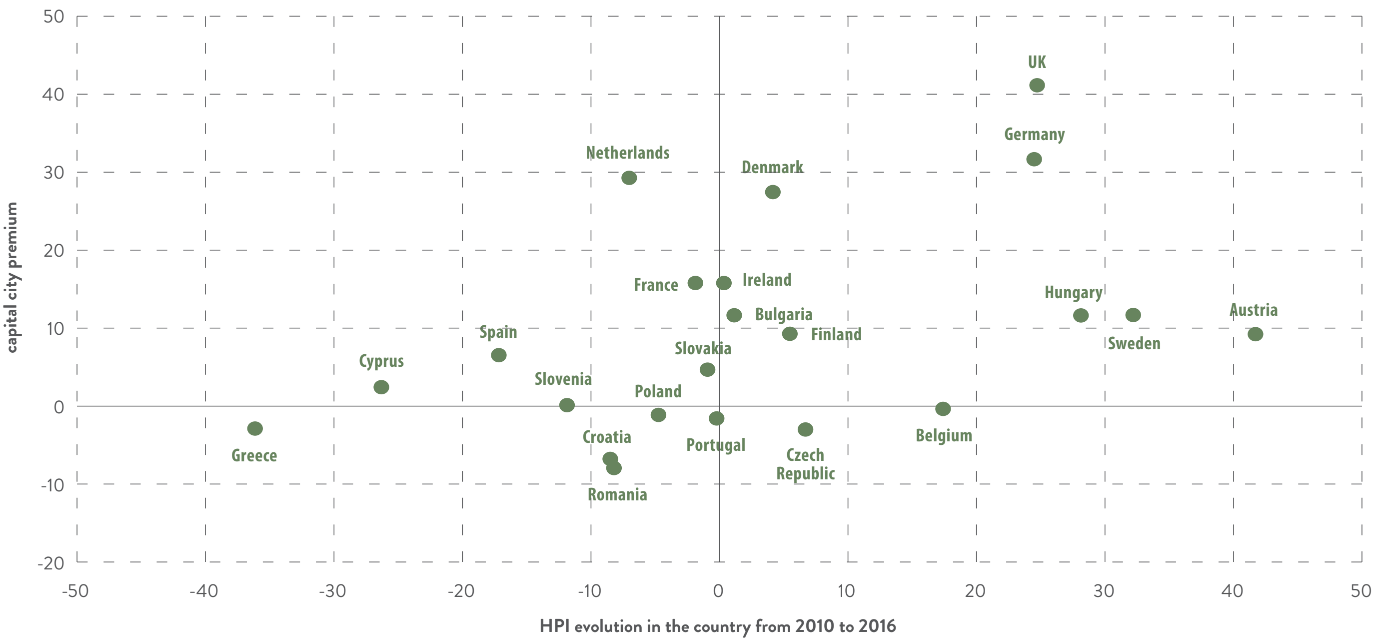


Source: European Mortgage Federation

COMPARISON BETWEEN CITIES AND RELATIVE COUNTRIES

As recalled earlier, with demographic evolution, cities in Europe often display a different trend in house prices. Chart 9 depicts the evolution of HPI in countries from 2010 to 2016 compared to the HPI evolution in their capital cities. The data points which depict a positive value on the y-axis indicate that the HPI of the capital city increased more than the rest of the country (the capital city premium). In the majority of cases, the HPI in capital cities increased more than in their respective countries, either dampening the negative house price evolution, when the country HPI shrank as a whole, or further increasing an already positive country-wide performance. The chart also shows countries where house prices in capital cities decreased more than in the rest of the country, i.e. those data-points with a negative y-axis. In all but two cases, the country overall faced a decreasing HPI and, in these cases, the capital cities magnified the negative effect. This can be principally explained by the fact that the more flexible urban population preferred to leave the country in search of better opportunities thus leaving even more empty dwellings and therefore dampening the house price dynamics more severely. The two exceptions with country-wide house prices increasing more than the capital city can be seen in Belgium and in the Czech Republic. In Brussels, the HPI has increased by a modest 0.3% less than in the rest of the country over the last 6 years, thus it can be considered to be in line with the country wide trend, however in the Czech Republic, Prague lags behind the strong growth trend of the rest of the country.

CHART 9 | PREMIUM CAPITAL HPI WITH RESPECT TO THE HPI OF THE COUNTRY



Source: Eurostat, European Mortgage Federation

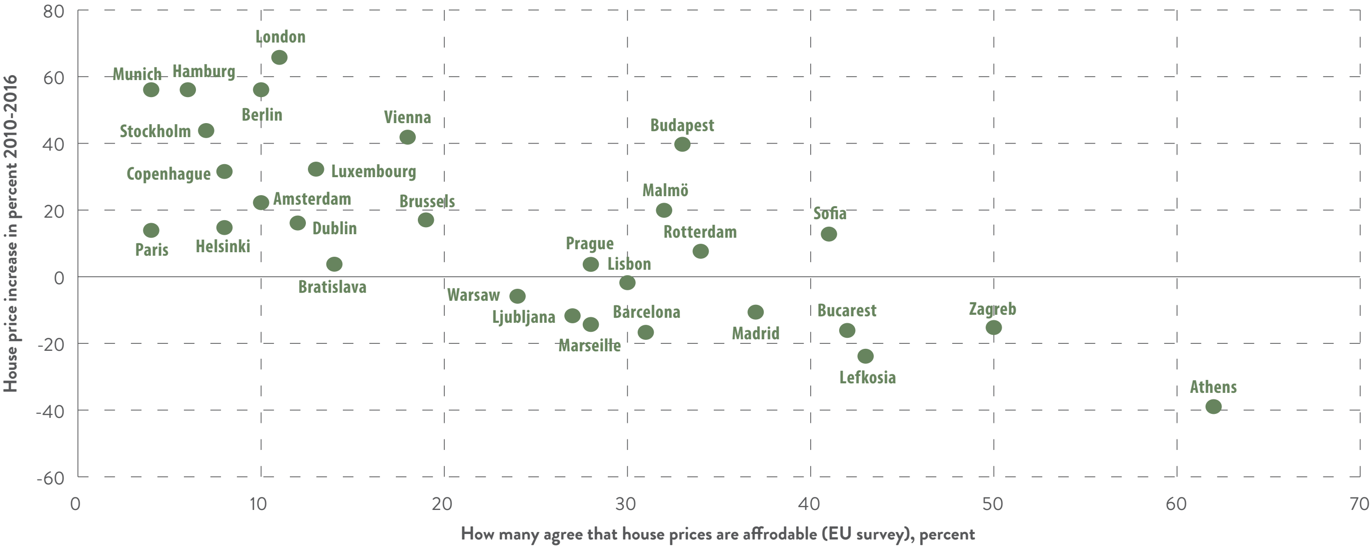
AFFORDABILITY TO BUY A HOUSE

To better understand the impact of generally increasing house prices in European cities it is important to grasp how (prospective) homeowners perceive the prices they have to pay to buy a home. A survey by the European Commission on urban perception found that, in all but two capital cities[2] in the EU, the minority of people agree that they were able to find houses at a reasonable price. In Paris, however, only 3% agreed, while in Berlin London 10% and 11% agreed respectively. The difficulty of finding a house at a reasonable price is exacerbated by the continuous increase in house prices in these cities which is highlighted by the negative correlation depicted in the following chart between the increase in house prices and the number of respondents who agree that they are able to find houses at a reasonable price.

Besides the development of house prices another important element to consider regarding the affordability to purchase is a house is the trend of mortgage rates, which will be discussed in the relevant section later on

[2] Athens and Zagreb.

CHART 10 | SURVEY ON HOUSE AFFORDABILITY AND HPI EVOLUTION FROM 2010 TO 2016



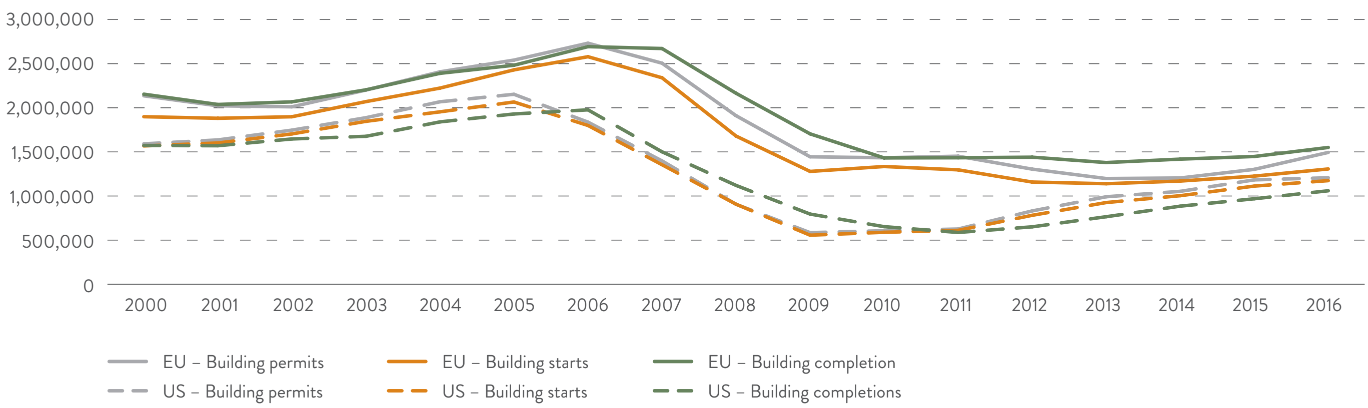
Source: Eurostat, European Mortgage Federation, author's calculations

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 [11] shows the evolution of these three indicators from 2000 to 2016 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, with building completions following with a certain lag due to the length of time needed to complete a building project. In 2016, the construction sector confirmed the mildly positive trend which started in 2015, pointing to clear signs of recovery in the market. Notwithstanding the fact that more units are being built, there is still a widespread lack of housing capacity especially in the cities and wider regions where people desire to live, thus leaving space for further developments and house price rises in already tense markets. Moreover, it should be noted that the pick-up in construction is not only ascribed to internal demand, but also to the increasing appetite of foreign real estate investors, especially in the Iberic peninsula, where this trend is reflected in increased construction figures. This ongoing imbalance is mainly due to lack of buildable land and the lack of a specialised workforce, coupled with significant building standard requirements. As immovable property, dwellings unfortunately cannot, by definition, be easily moved where they are most needed and, according to the latest data from the ECB, vacant houses in the EU reached 6.8% of the existing dwelling stock in 2014, as they are located generally in depopulated and less economically thriving regions.

CHART 11 | EVOLUTION OF CONSTRUCTION INDICATORS IN THE EU[3], RESIDENTIAL UNITS



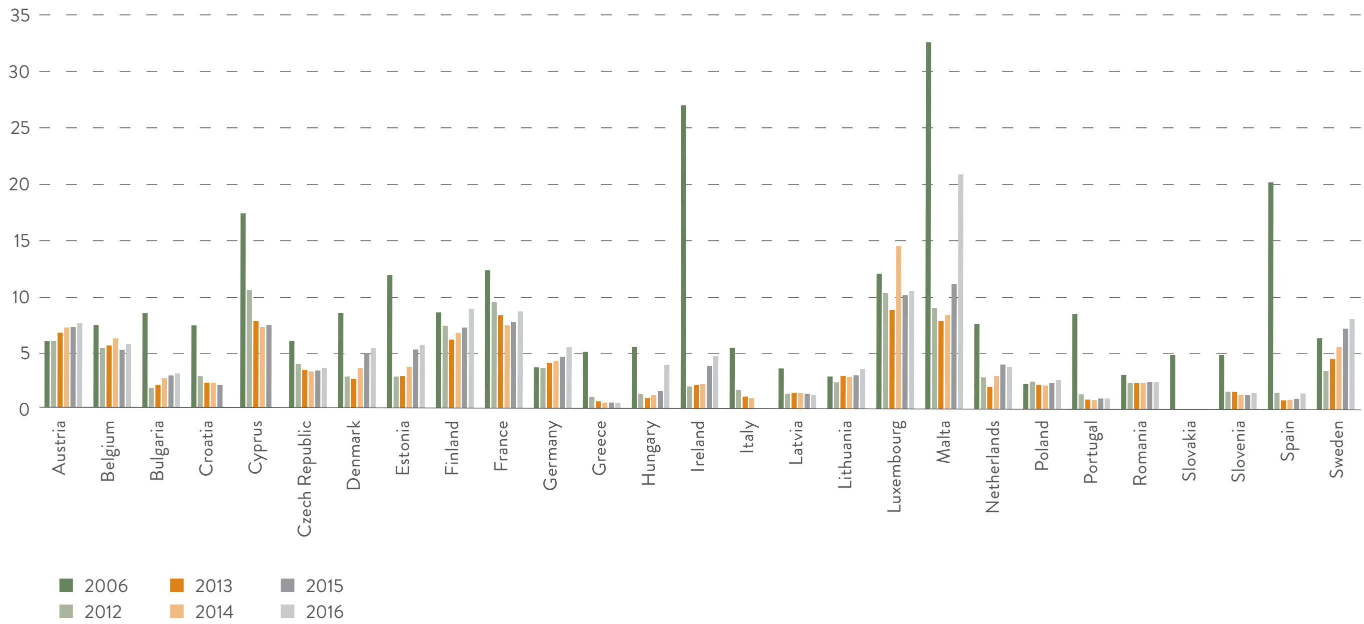
Source: European Mortgage Federation, author's calculations

[3] 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.

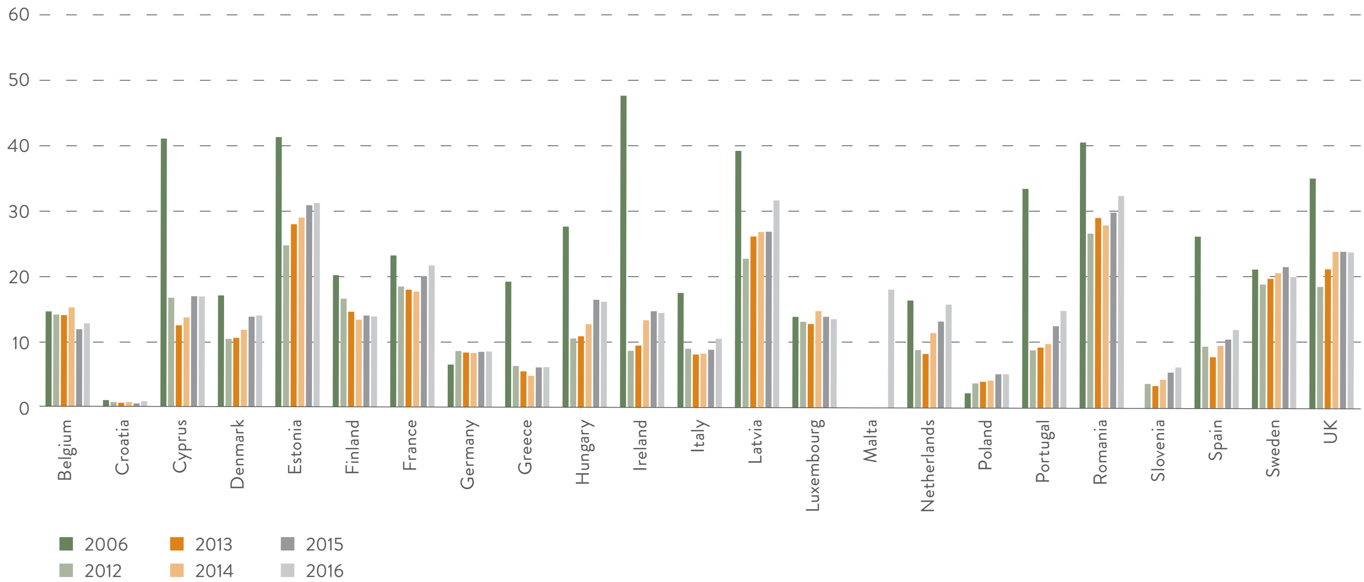
As is the case for the demand side, the supply side also faces a very heterogeneous picture across countries, which reflects a fragmented market that is moving at different paces and in different directions. Chart [12] compares the evolution of building permits in the last 4 years with the pre-crisis levels in 2006, while Chart [13] compares the number of transactions over the same period. In the former, although an increasing trend is seen in the sample, the peaks reached in the pre-crisis period are far from being reached by the countries which were hit the hardest by the fall in permits during the crisis a decade ago. On the other hand, in countries where the real estate industry did not experience a severe readjustment such as Austria, Germany and Poland, the number of building permits issued is growing in a sustainable fashion. Sweden displays a similar path to the afore-mentioned countries, but its evolution is following a steeper path. From a transaction point of view, the pre-crisis level is still far away for those countries which faced a severe setback in transaction figures a decade ago, however the level is closer to the pre-crisis levels than for building permits.

CHART 12 | BUILDING PERMITS PER 1000 INHABITANTS OVER 18 YEARS



Source: European Mortgage Federation

CHART 13 | NUMBER OF TRANSACTIONS EVERY 1000 INHABITANTS OVER 18 YEARS



Source: European Mortgage Federation

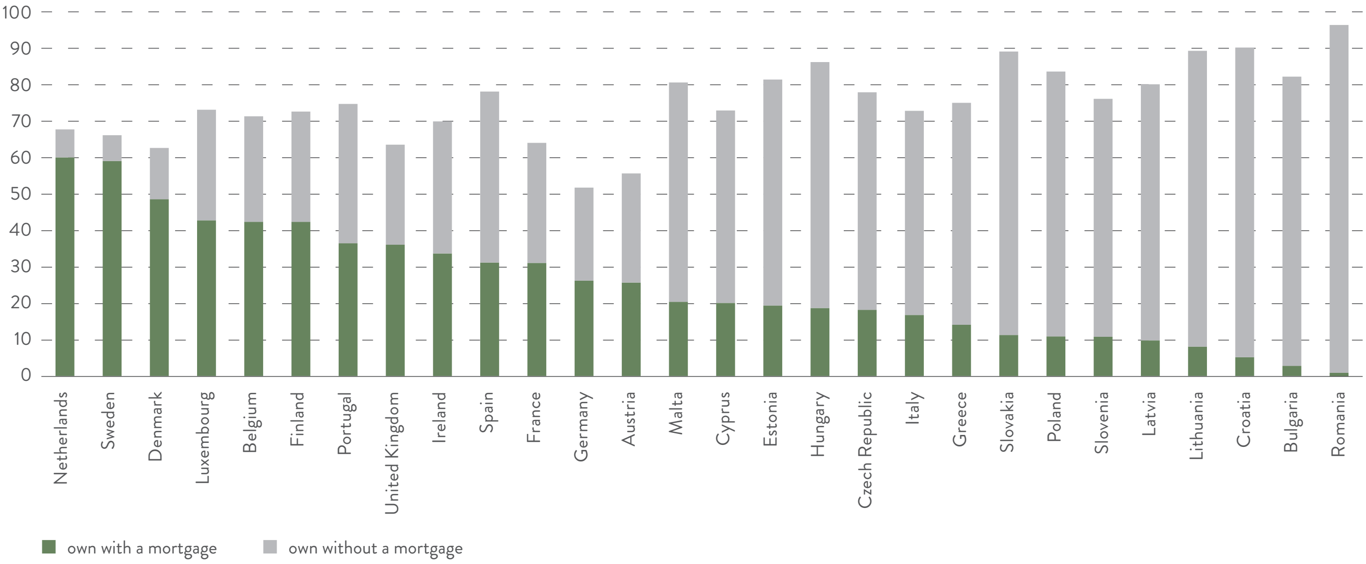
MORTGAGE MARKETS

SETTING THE SCENE – HOMEOWNERSHIP AND MORTGAGE INDEBTEDNESS ACROSS THE EU

Homeownership, besides being an important economic decision, is principally linked to cultural factors as to how people want to accumulate and transmit wealth. Especially in Mediterranean countries owning a house is an important milestone in life, whereas in countries such as Germany, individuals often live in a rented dwelling and invest in other assets. The following chart provides an overview of the heterogeneous tenure structure throughout Europe in 2015 and thus the importance of the mortgage market in the various countries ordered by the amount of homeowner with a mortgages. The sum of the stacked histograms show the percentage of homeowners in the given countries. On the one extreme in the Netherlands nearly 60% of population own their home with a mortgage, while on the other side of the spectrum in Romania 0.9% of the population have a mortgage and 95.6% own without having a mortgage.

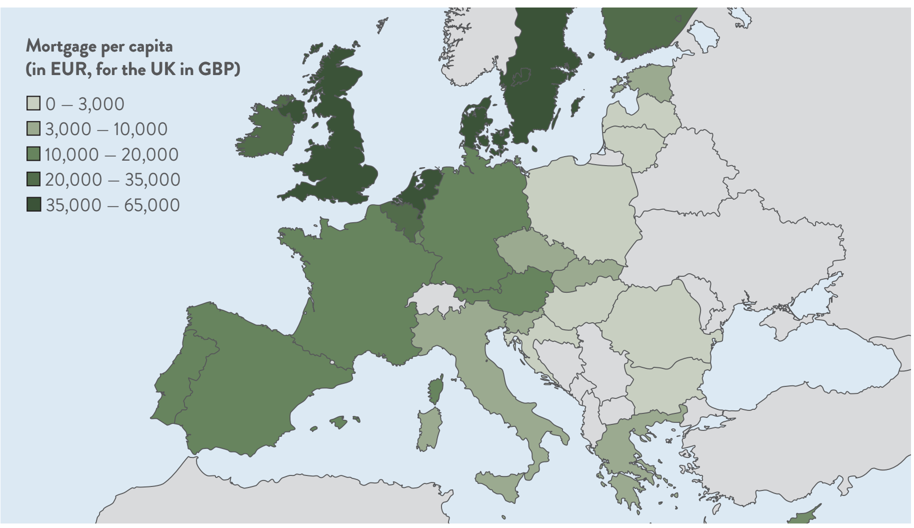
Notwithstanding the different propensity for having a mortgage loan at an aggregate Euro area level, disbursed loans account for roughly 43% of the overall GDP in the area and on average every adult has mortgage debt of around EUR 16,800, a figure that has grown by approximately 3% since 2012. The general increase in exposure to residential loans led the European Systemic Risk Board to issue, on the 22 September 2016, a warning on medium-term residential real estate vulnerabilities to eight countries[4] which may be a source of systemic risk to financial stability.

CHART 14 | PERCENTAGE OF HOMEOWNERS IN 2015 WITH BREAKDOWN OF OWNERS WITH AND WITHOUT A MORTGAGE.



Source: Eurostat

MAP 5 | MORTGAGE PER CAPITA



Source: European Mortgage Federation

RESIDENTIAL MORTGAGE LENDING

The majority of mortgage lending activity has been concentrated for the last 10 years in less than a handful of countries. In 2006, 75% of outstanding residential mortgages were held in the UK, Germany, France and the Netherlands. In 2016, these countries represented 72% of the overall EU market.

Although in general terms the mortgage market is growing throughout the EU, at an aggregate level the total outstanding decreased by 1.38% in 2016, coming in under the EUR 7 tn mark which was passed in 2015. This decrease, however, is not to be ascribed to a decreasing in the appetite for purchasing residential property, which continued to be positive in all largest EU countries except for Spain, but it is nearly exclusively due to the severe contraction of the GBP vis-à-vis the EUR in the period after Brexit, which left the UK's outstand-

[4] Austria, Belgium, Denmark, Finland, Luxembourg, the Netherlands, Sweden and the UK.

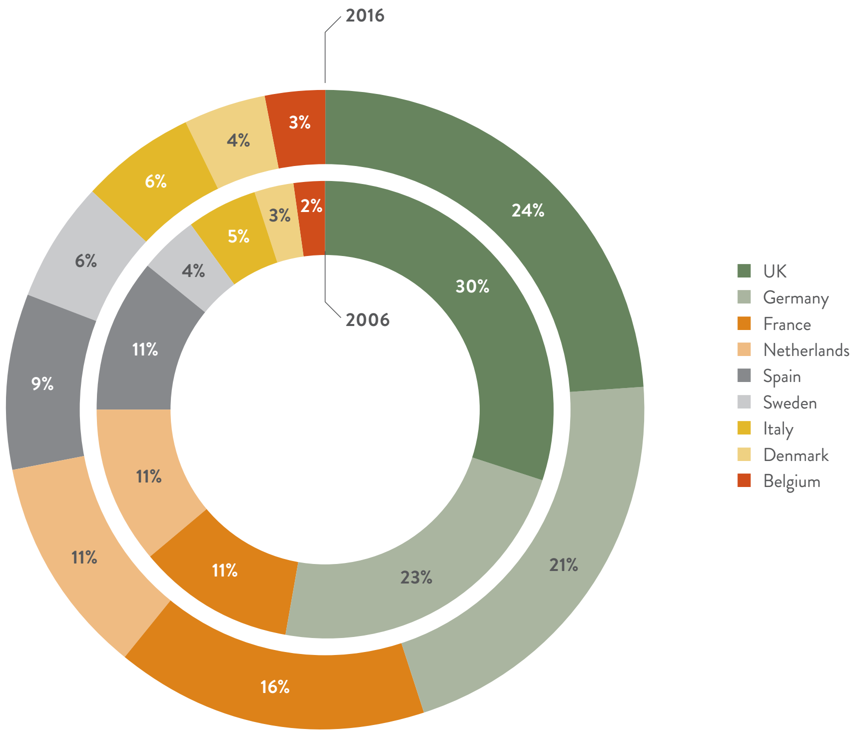
ing mortgage position 12% lower (i.e. more than EUR 200bn) in EUR terms although if calculated in GBP the UK's mortgage market increased by 2.65% over the same period. A similar picture was also apparent in 2008, when the Euro appreciated significantly against the GBP and the SEK. On the other hand, the Euro area recorded a healthy increase 2.03%, the highest value since 2012. In terms of the evolution of the outstanding figures between 2015 and 2016, the mortgage markets of France and Germany grew the most, while Spain continued the ongoing deleveraging started in 2009. For a more precise picture, as depicted in Chart 17, in the EU there has been in the past year an increase of EUR 167 bn of outstanding mortgages, however this increase has been more than offset by the depreciation of the SEK and GBP with respect to the Euro, which decreased by EUR 265 bn the value of the mortgage outstanding of these two countries, hence an overall decrease in the outstanding mortgage value.

Economic growth, coupled with improved labour markets and a low interest rate environment, meant that the aggregate gross lending figures in the EU follow the upwards path which began in 2012, with levels approaching those last seen in 2007. In absolute values, Italy accelerated the most in 2016, followed by the Netherlands and France. In general, non-Euro area countries granted lower amounts with respect to 2016, which at least for the UK, can once again be explained by the depreciation in the exchange rate.

The wide-spread acceleration in the mortgage market has led several countries to introduce stricter macro-prudential rules in order to prevent the market from overheating. The main measures are the introduction of more stringent LTV rules or the limitation of loans with LTVs beyond a certain threshold, which prevent borrowers with less own capital to climb the housing ladder. Other measures used are the imposition of amortisation rules, such as the ones presented by the Financial Supervisory Authority in Sweden, which imposes more stringent limits for borrowers with LTIs higher than 4.5.

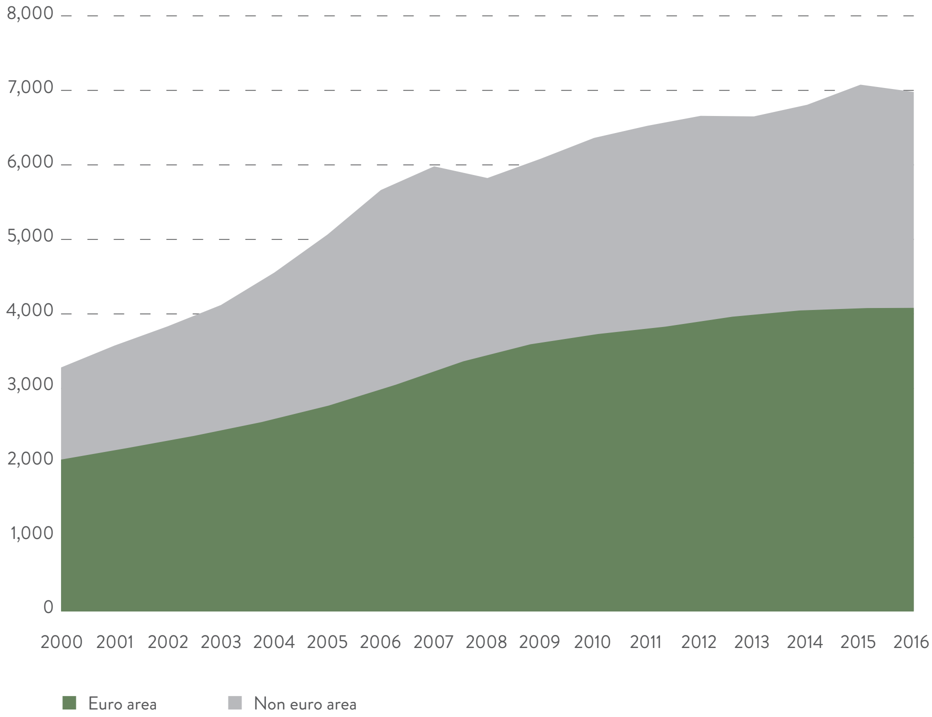
Looking at the cross-country comparison, the majority of countries is currently providing more gross lending than in 2007 and in some cases the levels are significantly higher, such as in the Czech Republic, which more than tripled over the last 10 years. Also Belgium increased considerably over this period especially due to mortgage refinancing, but also due to new mortgage lending which reached an all time high at the beginning of 2017.

CHART 15 | COMPARISON OUTSTANDING RESIDENTIAL MORTGAGES



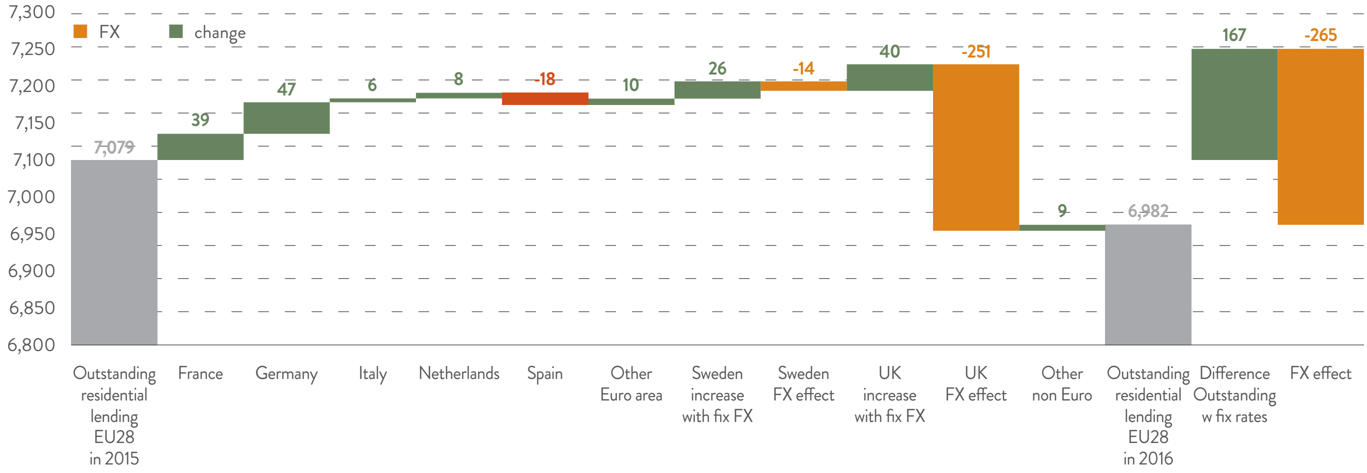
Source: European Mortgage Federation

CHART 16 | OUTSTANDING MORTGAGE LENDING IN THE EU SPLIT BY EURO AREA AND NON-EURO AREA, EUR BN



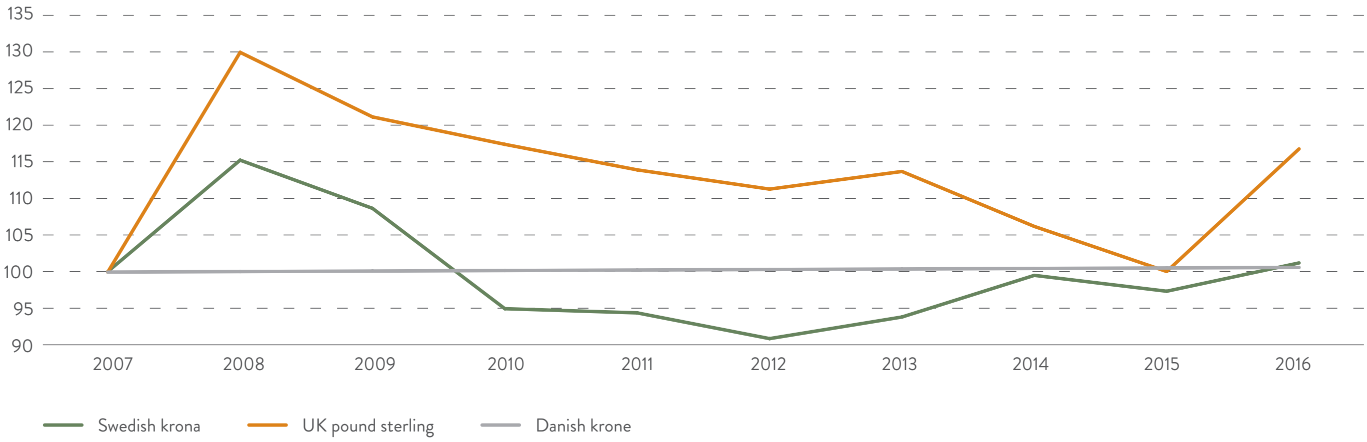
Source: European Mortgage Federation

CHART 17 | OUTSTANDING MORTGAGE EVOLUTION 2015-2016, IN EUR BN



Source: European Mortgage Federation

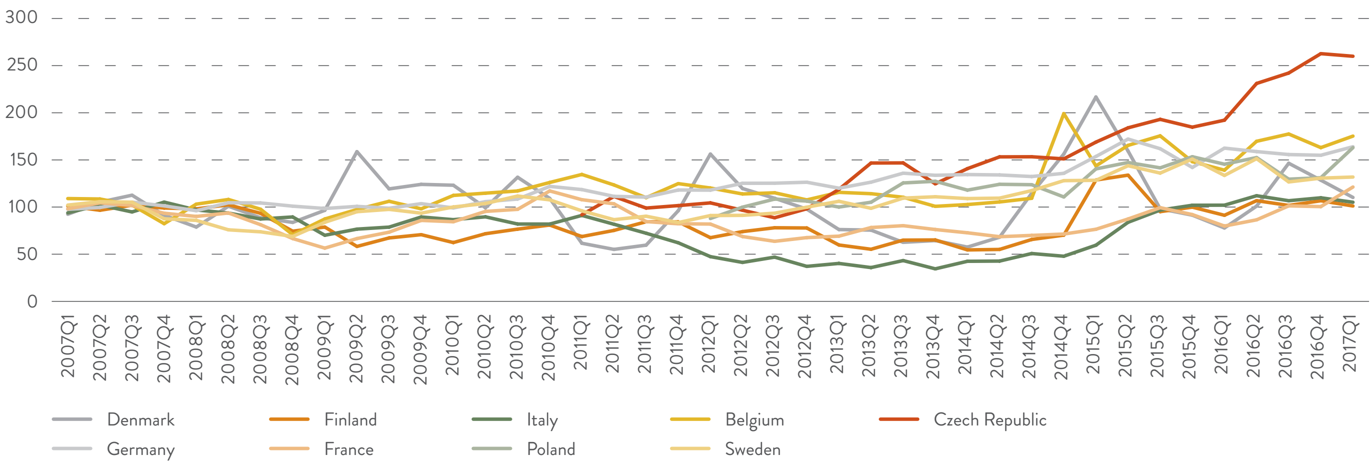
CHART 18 | END-OF-YEAR EXCHANGE RATES FOR SELECTED CURRENCIES, 2007=100



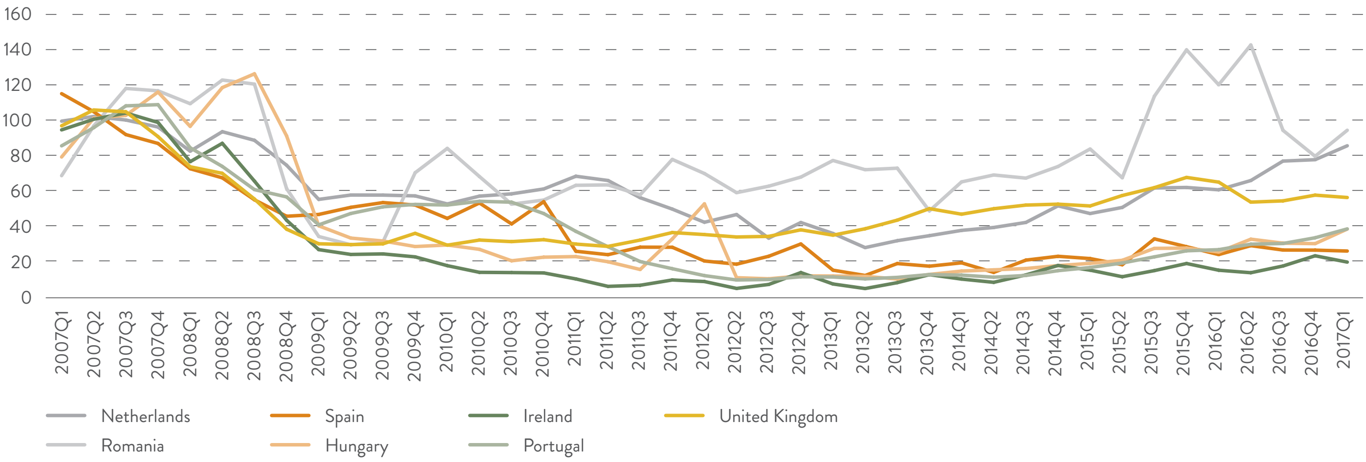
Source: European Mortgage Federation

CHART 19 a – b

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



COUNTRIES WHERE GROSS LENDING WAS BELOW PRE-CRISIS LEVEL (2007=100)



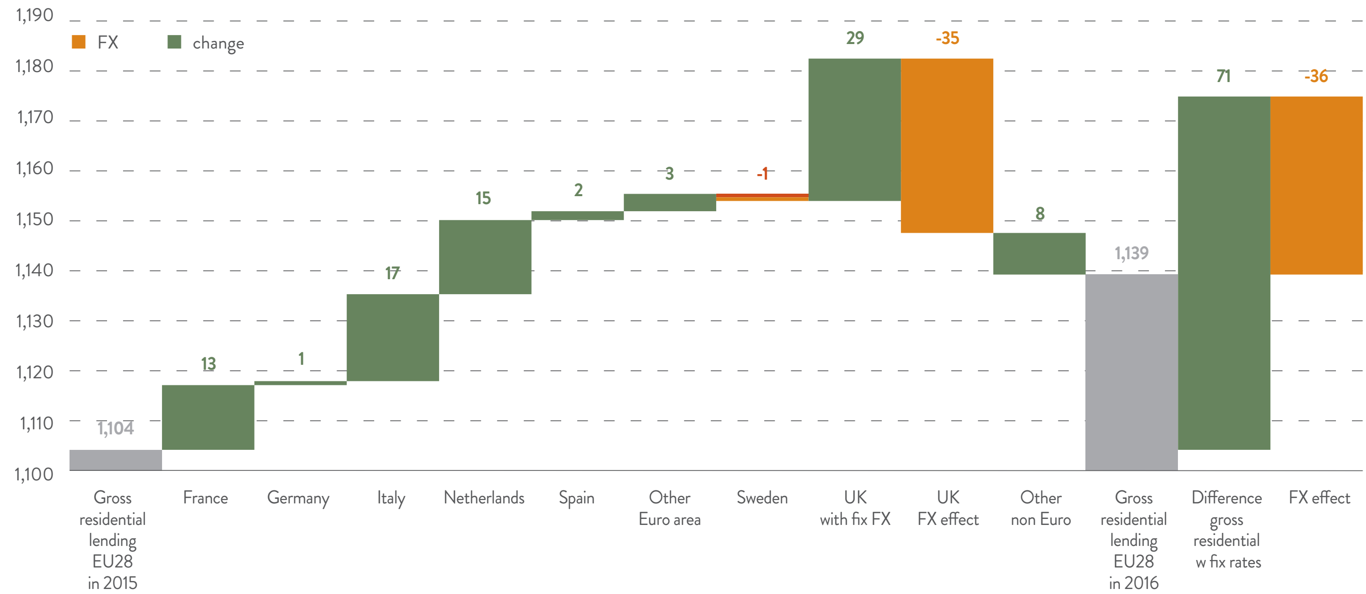
Source: European Mortgage Federation

There are still several countries which have not yet reached their pre-crisis levels and some are still very far from those figures. It has to be highlighted, however, that in general over the last quarters the growth trend consolidated in the various countries and it is therefore of paramount importance that the evolution of lending is monitored in order to ensure that the market does not overheat. Also for the gross lending as for the outstanding mortgage figures, the actual amount of new outflow has been dampened by the depreciation of the GBP with respect to the EUR.

MORTGAGE MARKET INTEREST RATES

Mortgage interest rates continued their downward path in 2016 with very few countries not finishing the year at a lower interest rate than at the beginning. The unweighted average of interest rates throughout the EU decreased by 29 bps to 2.63%. However, during the course of the year, a growing number of countries marked some change in tendency and at the beginning of 2017 the majority of the sample of the Quarterly Review actually saw a marginal increase in the representative interest rate.

CHART 20 | GROSS LENDING EVOLUTION 2015-2016, IN EUR BN

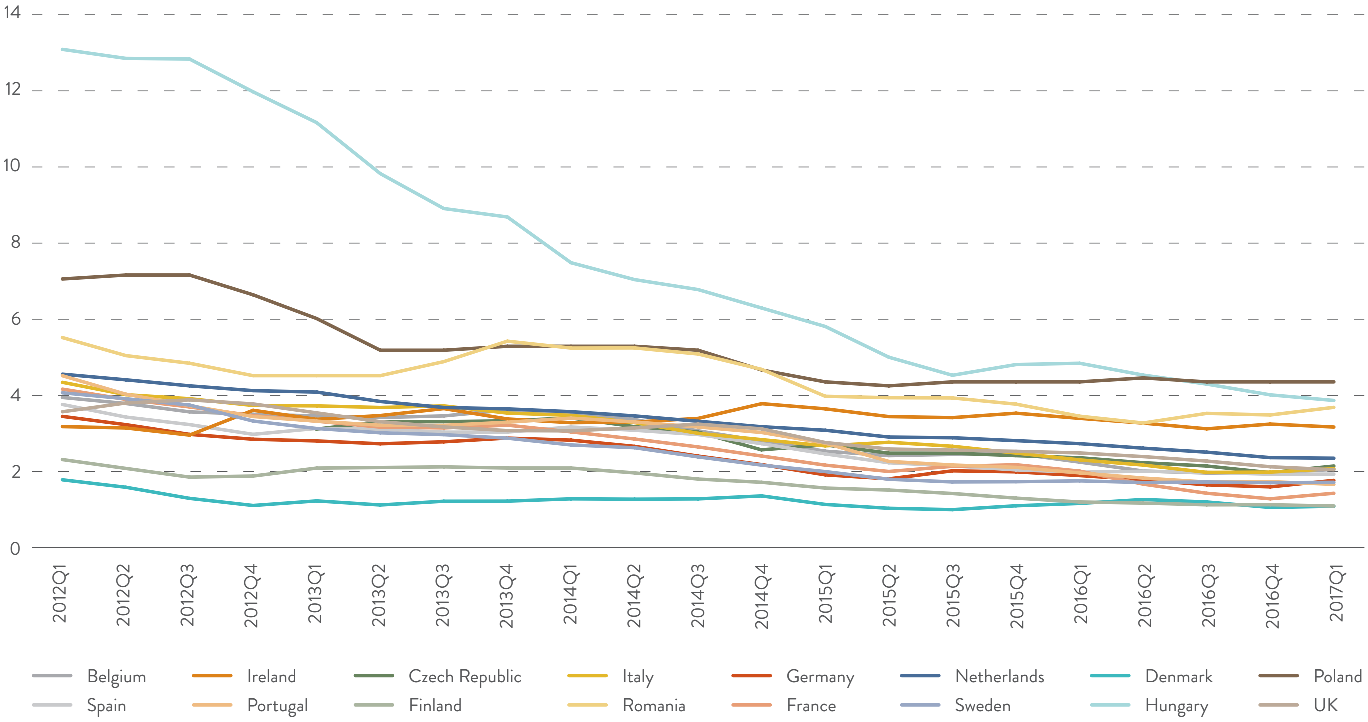


Source: European Mortgage Federation

Since the beginning of the financial crisis, Central Banks have used a wide variety of tools to stimulate growth and inflation. In 2016, both indicators started to return in the EU, which led the ECB to reduce its Asset Purchasing Programme from EUR 80 bn to EU 60 bn a month. However, it continues to maintain its reference rate at 0% as opposed to the FED which, after the first hike in seven years in December 2015, increased the rate another three times until it reached 1.25% in June 2017.

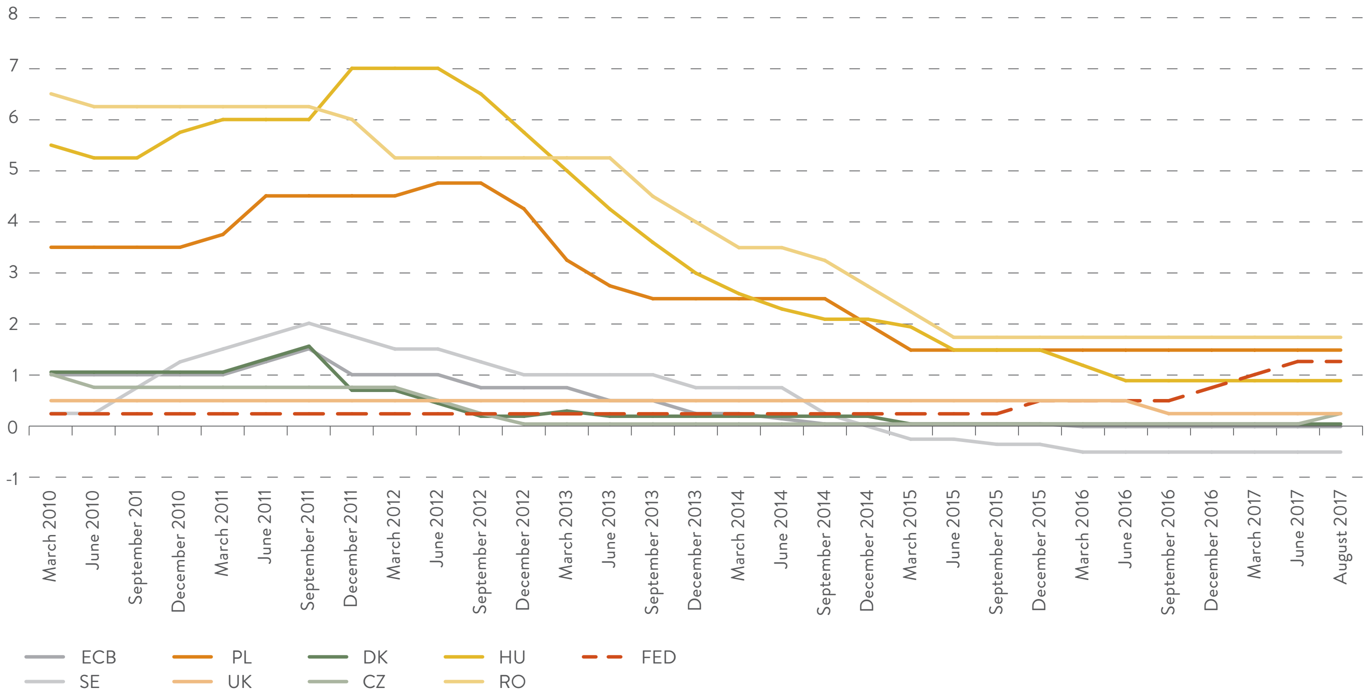
Since the end of 2016 in the Euro area, inflation has increased, largely due to energy prices, however underlying inflation still remains subdued. Nevertheless, ongoing global growth, coupled with diminishing spare capacity are expected to provide support to underlying inflation over the medium term.

CHART 21 | MORTGAGE RATES IN THE EU, IN PERCENT



Source: European Mortgage Federation

CHART 22 | BENCHMARK POLICY RATES FOR SOME EU CENTRAL BANKS AND THE FED, PERCENT P.A.

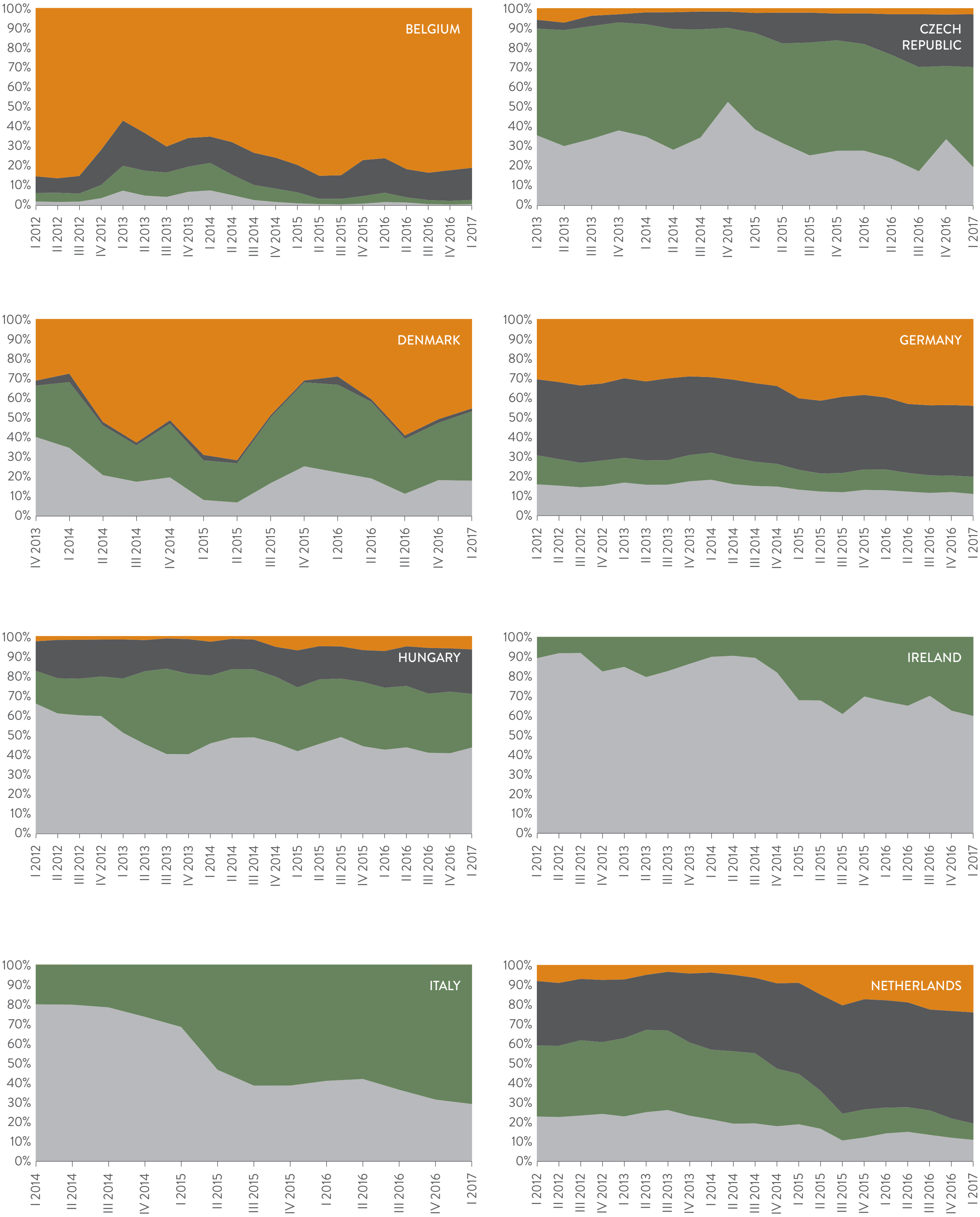


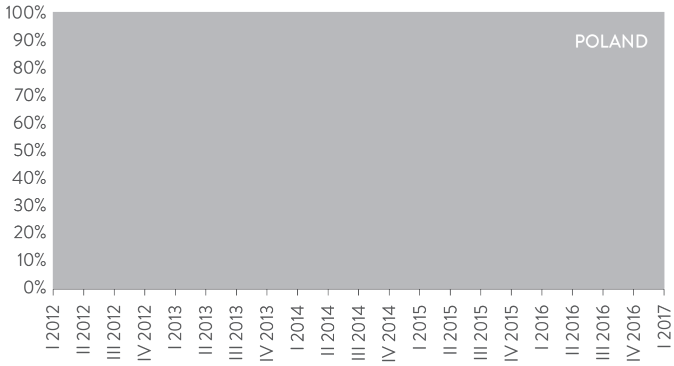
Source: Bloomberg

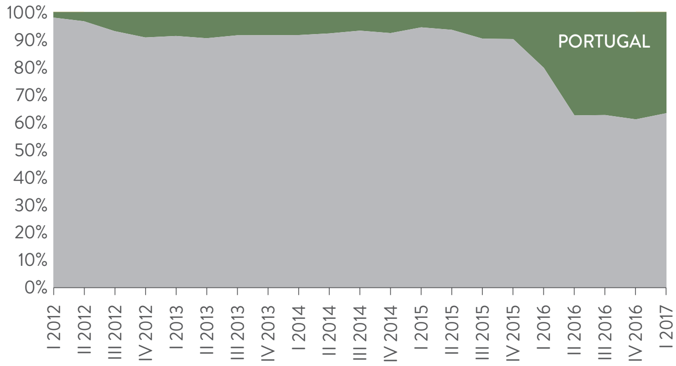
DIFFERENT TYPES OF INTEREST RATES

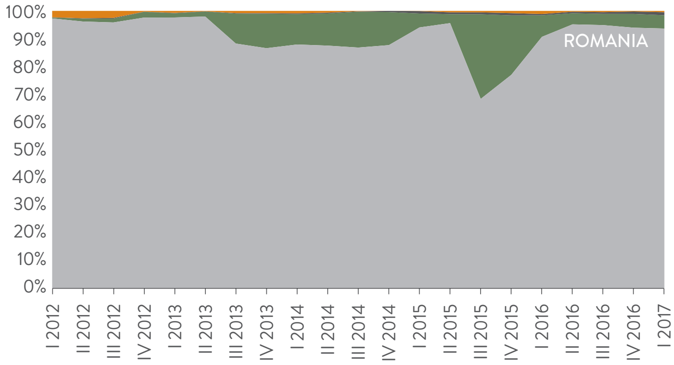
Consumers throughout the EU show different preferences in terms of fixed or variable mortgage rates as a result of legislation and cultural factors. As a constant however, it is evident that the low mortgage rate environment has increased the appeal of a more fixed rate solution in order to reap the benefits of low cost money, also when interest rates start to rise. This evolution is particularly evident in Spain where at the end of 2016 nearly 58% of new lending had some initial fix period, compared to 37% at the end of 2015.

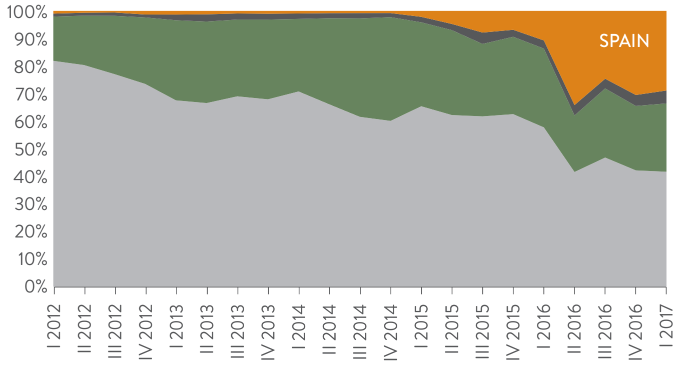
CHART 23 | MORTGAGE MARKETS BREAKDOWN BY INTEREST RATE TYPE (%) — NEW LOANS

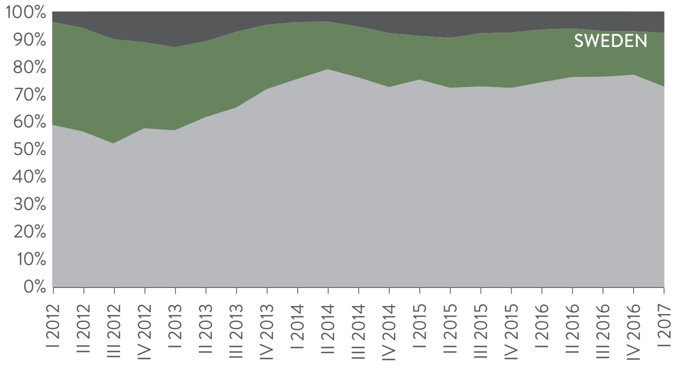


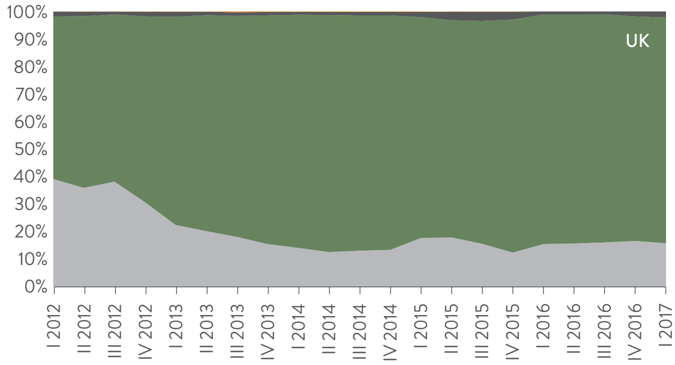












Source: European Mortgage Federation

The "V" in LTV and why it matters

By Ludovic Thebault, European DataWarehouse

The *Loan To Value* (LTV) ratio, defined by the rating agency DBRS as "… the ratio between the principal balance on the mortgage and the appraised value of the property serving as security for the loan itself"[1] is a key risk indicator for mortgages. It is commonly referred to in financial regulation, in rating agency methodologies, and in bank credit policy. In this article, we take advantage of European DataWarehouse's securitisation data to take a fresh look at this key indicator, and its field of application.

We find that there are several ways to calculate a LTV, with different implications depending on the way it is calculated. For instance, the "V" in LTV is not normally updated following loan issuance. This results in conservative LTV estimates when prices rise post loan origination but it can also be misleading when house prices decrease. The LTV is both an indicator of default risk (when calculated at loan origination) and an indicator of expected loss, when the "V" is updated. Looking at European DataWarehouse (ED) loan by loan data,[2] we find that LTV at origination (OLTV) differs greatly from one country to another and, even within countries, OLTV change overtime, particularly in markets affected by significant property price volatility. We also find that, as expected, the LTV is a key performance indicator. In almost all countries, the lower the LTV, the better the performance of the loan.

CALCULATING THE LTV

The LTV is typically used at loan origination, and for ongoing credit risk monitoring, to assess the amount of equity a borrower has in his property. A higher LTV indicates less equity and more risk. At loan origination, the LTV is often used alongside other indicators such as the Debt To Income (DTI) ratio, which compares the debt burden to the borrower's income. Such ratios are often considered to be more accurate measures of loan affordability and are useful indicators of how vulnerable a borrower is to changes in economic circumstances (for example, loss of job, divorce, higher interest rates). However, these ratios tend to be only a "point in time" assessments, rarely available for post underwriting performance monitoring. Because the inputs used to calculate the DTI must be requested from the borrower (his total income and total debt), updating a DTI is not feasible without borrower cooperation. In contrast, the LTV can be easily monitored using information on the outstanding amount of the mortgage and the real estate collateral that secures it.

The LTV can be calculated in different ways, depending on how the numerator and denominator are calculated. Thus, LTV calculations can be country or even bank specific. The "V" commonly refers to the acquisition/market value of the property or to its estimated foreclosure value (net of liquidation costs). In the case of German covered bonds, the property valuation is based on the long term estimated "mortgage lending value" instead.[3] The LTV provided for Belgian loans available in ED's database is usually calculated on an "all sum" basis, i.e. the ratio of all liabilities to assets of the borrower. In order to avoid overestimating LTVs and repayment risk, conservative property valuations are often used. For example, the rating agency Standard and Poor's mentions that their OLTV ratio typically uses the lower of the purchase price and the original valuation of the property.[4]

In cases where a loan allows for subsequent drawings, the maximum loan limit is typically used as "L" in the calculation. Rating agencies generally factor into the LTV calculation country-specific assumptions regarding a percentage of liquidation costs and a lag until the sale of the property (the period needed to liquidate the property and during which its value may decline further). Also, in countries where regulation imposes a ceiling on the LTV, the regulator often describes how the LTV should be calculated.[5] For the sake of clarity, we will refer to the following types of LTV in this article:

- **Original Loan To Value (OLTV):** LTV calculation using L and V as of loan origination, and not updated afterwards
- **Loan To Original Value (LTOV):** LTV calculation using the current value of L but keeping V unchanged since loan origination
- **Loan To Indexed Value (LTIV):** LTV calculation using the current value of L and updating V with the relevant house price index since origination
- **Loan To Updated Value (LTUV):** LTV calculation using the current value of L and updating V with a property specific evaluation taking into account that its value may significantly depart from what the Index suggests. This calculation is rarely used for cost reasons, but is used in cases where the loan must be refinanced or when it is underperforming.

These various LTV calculations can give very different results, pointing to very different conclusions. House prices, over the long run, should generally increase with inflation. When the original valuation amount is used for the updated LTV calculation (LTOV), this generates conservative results. ED data shows that house prices are not always updated and that updated LTVs are typically based on the values at origination, only updating the L. However, when house prices decrease, this calculation can become even more misleading (Exhibit 1a). Given that a full evaluation is a costly process, revised property values, when provided, are often indexed values (LTIV). Exhibit 1a compares the evolution of the LTIV and LTOV for a Spanish loan that originated with a 100% LTV in January 2007. In Q4 2011 the LTIV is back to 100%; by Q2 2013 it stands at 115% while the LTOV indicates a value of only 76%. The LTIV is, therefore, a more appropriate measure of a loans' Loss Given Default (LGD) in the context of sharply declining house prices.

[1] See DBRS: (DBRS Master European Residential Mortgage-Backed Securities Rating Methodology August 2010).

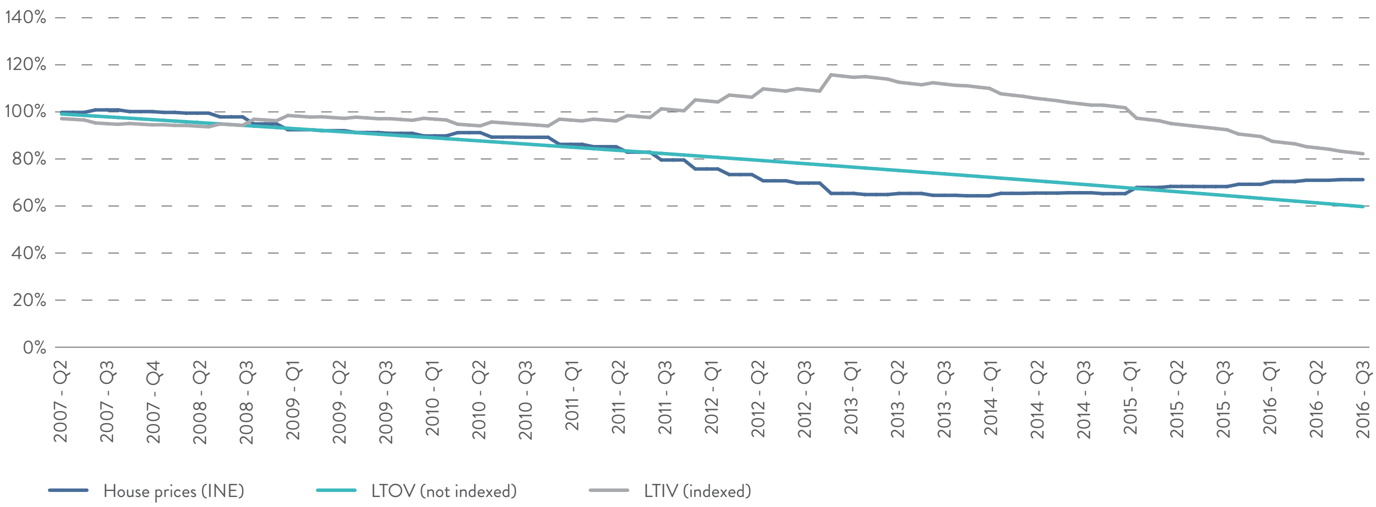
[2] See European DataWarehouse: The European DataWarehouse (ED) is the first central data warehouse in Europe for collecting, validating and making available for download detailed, standardised and asset class specific loan level data (LLD) for Asset-Backed Securities (ABS) transactions. Developed, owned and operated by the market, ED helps to facilitate risk assessment and to improve transparency standards for European ABS deals.

[3] See Verband Deutscher Pfandbriefbanken: "The mortgage lending value […] is the value of the property which based on experience may throughout the life of the loan be expected to be generated in the event of sale, irrespective of temporary, e.g. economically induced, fluctuations in value on the relevant property market and excluding speculative elements. In determining the mortgage lending value, the future saleability of the property is to be taken as a basis within the scope of a "prudent valuation", taking into consideration the long-term, permanent features of the property, the normal regional market situation as well as the present and possible alternative uses."

[4] See S&P Global: "Methodology And Assumptions: Assessing Pools Of European Residential Loans", Dec. 2016.

[5] For instance, a 85% LTV ceiling was introduced in Sweden in 2010. The "V" in this case is defined as the value of the property if it was sold on the open market and reasonable time is given to price negotiation. The market price could be done by an individual valuation of the property. The individual valuation could be based on the general price level.

EXHIBIT 1A | INFLUENCE OF HOUSE PRICE CHANGES ON LTV CALCULATION



Source: European DataWarehouse; INE; comparing two LTV calculations assuming a Spanish loan with a 20-year maturity, 3% fixed interest rate and 100% LTV at origination in Jan. 2007

EXHIBIT 1B | INFLUENCE OF HOUSE PRICE CHANGES ON LTV CALCULATION

	PROPERTY VALUE AT ORIGINATION 2006 (A)	LOAN AMOUNT AT ORIGINATION 2006 (B)	LOAN AMOUNT NOW (C)	PROPERTY VALUE NOW - INDEXED (D)	PROPERTY VALUE NOW - FULL REVIEW (E)	OLTV 2006 (B/A)	LTOV 2012 (C/A)	LTIV (C/D)	LTUV (C/E)
Property 1 (prime location)	100,000	80,000	70,000	80,000	90,000	80.0%	70.0%	87.5%	77.8%
Property 2 (vulnerable location)	100,000	80,000	70,000	80,000	70,000	80.0%	70.0%	87.5%	100.0%

Source: European DataWarehouse

However, an LTV recalculated using an indexed property value (LTIV) may still provide an incomplete picture of the situation. Property price indices that are used to calculate LTIV are generally only provided at a broad regional level even though there may be important differences in the evolution of property prices within this region. In countries that experienced property crises, steeper price drops were often observed in newly developed estates than in prime "city centre" locations, but a geographic index would typically not account for this. Exhibit 1b shows the various LTV calculations that can be generated when comparing a property in a prime location with a property in a more vulnerable location within the same index area (and thus updated with the same index). Assuming similar loan characteristics, including a LTV at origination of 80% and a value at origination of EUR 100,000 for both properties, the current LTOV would now be 70% for both. If the relevant property index dropped 20% since origination, the indexed property value would then be EUR 80,000 for both loans within this area and the LTIV (using the indexed value) would be 87.5% for both. If, in fact, the value of the property in the prime location only dropped by 10% while the value of the property in the newly developed location fell by 30%, a fairer LTV based on an individual revaluation of property prices would show a 77.8% LTV for property 1 and a 100% LTV for property 2. If a buffer of 10% is needed to avoid losses upon liquidation (i.e. a 90% LTV), only the second, more precise, calculation indicates a risk of loss on property 2.

Moody's noted, in a study of Spanish repossessed properties using European DataWarehouse data, that overall, the price depreciation on foreclosed properties was substantially more severe than indicated by the index. They attributed this worse than average price depreciation for distressed properties to "…the forced sale process of distressed properties as opposed to sales between willing market participants".[6] Nevertheless, European DataWarehouse intends to complete its existing data with indexed property valuations, where these are not yet available, considering that LTIVs would be useful complements to the LTOVs already available.

TO WHOM THE LTV MATTERS

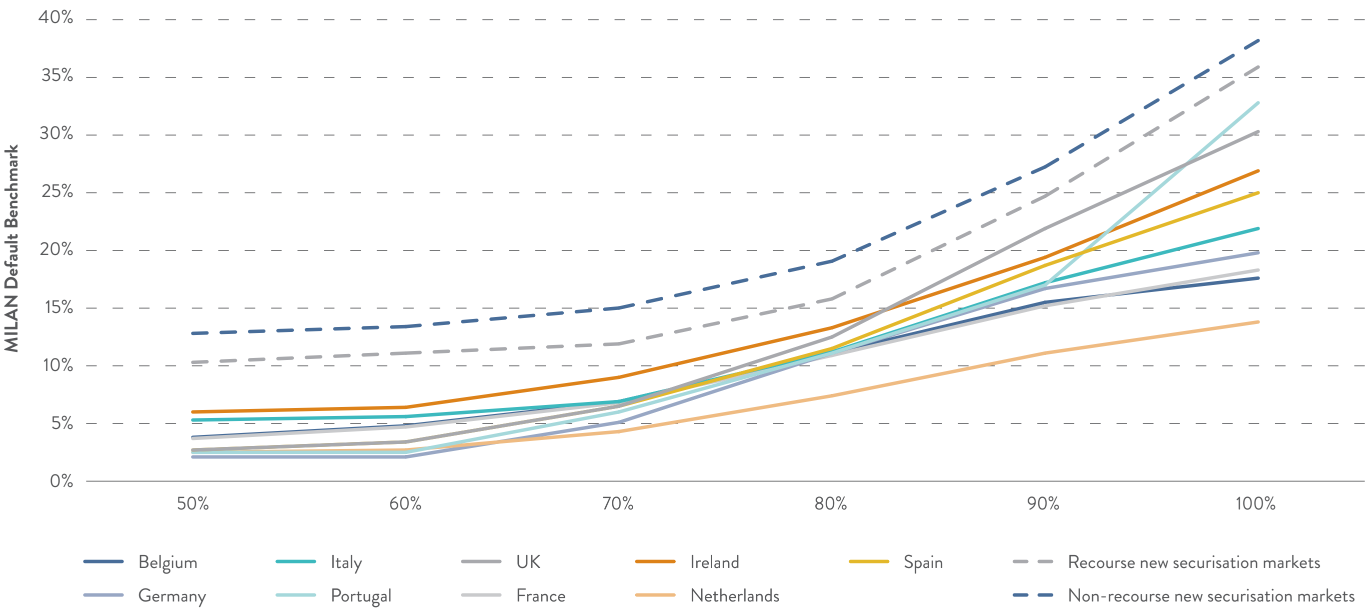
The LTV is used as a key input by rating agencies to determine both the default probability of a mortgage and its expected Loss LGD. The OLTV is a predictor of default for several reasons. A high OLTV implies higher leverage and, therefore, more risk. It implies that either the borrower was obliged to borrow more because he could not otherwise afford the property, or, if he chose to borrow more, that he was willing to take on more risk. Also, the amount of equity invested in the property can be used as an indicator of willingness to pay. This is particularly relevant in non-recourse jurisdictions where the loan

[6] See: Moody's sector comment, "Recovery Rates Remain Within our Assumptions, Amid Weakened Repossessed Property Prices", Feb. 2017, report 1052711.

is to be repaid solely with the proceeds of the sale of the property in case of default, with no recourse against the borrower.[7]

Rating agency methodologies for residential mortgage backed securities (RMBS) generally assume that default probability increases exponentially with the LTV, that the risk carried by a specific LTV level is country specific, and that the current LTV is key to assess the expected loss on the loan. For example, Moody's MILAN methodology,[8] attributes a benchmark default frequency to a loan depending on its country of origin and OLTV. This default frequency is then adjusted with several country-specific factors. The relationship linking a LTV at origination to a default probability is not linear, as shown in Exhibit 2. For a Portuguese loan, for instance, doubling the LTV from 50% to 100% increases the default benchmark more than tenfold (from 2.5% to 32.8%), but increasing the LTV from 50% to 60% leaves the default benchmark unchanged. Other rating agencies use similar approaches.[9]

EXHIBIT 2 | MOODY'S MILAN DEFAULT FREQUENCY CURVE PER COUNTRY



Source: Moody's Investors Service

LTV values adjusted for house price variations also have some default-predicting power. This is because a borrower with a low current LTV (as measured by LTIV and LTUV), facing difficult economic circumstances (such as unemployment, divorce or long-term illness) can more easily refinance or sell his property than a borrower with a high updated LTV, at risk of becoming a “mortgage prisoner”, unable to refinance his loan. Also, in non-recourse jurisdictions, borrowers are more likely to default when they have no equity left in their property.

The updated LTV is also an essential predictor of LGD. Upon default, the property is typically repossessed by the lender and sold to repay the loan. The liquidation proceeds are first used to cover the liquidation costs and the remainder is then used to repay the loan. If the property is used as security for several loans, the senior ranking loans are paid prior to junior ranking loans, which may not be repaid in full if the proceeds are insufficient. A senior and a junior ranking loan backed by the same property can, thus, have the same probability of default (PD) but different LGDs. A given LTV ratio will, consequently, have different implications depending on country or market-specific variables such as the ranking of the loan, the liquidation costs, the timing of recoveries etc. Overestimating the value of the property for the updated LTV results in an underestimation of the LGD.[10] Also, in order to derive a possible recovery value, the indexed LTV may have to be stressed further by a Market Value Decline (MVD) assumption, that would account for further possible losses in value between the default date and the actual sale of the property. Beyond a general market decline in house prices, other factors, such as lack of maintenance, can also affect the value of a property. This is particularly relevant for borrowers who are about to default and may have neither the means nor the will to maintain their property.

The LTV plays a role in banks' underwriting and performance management procedures. Because high LTV loans are typically expected to represent a higher risk, banks will typically extend loans with higher LTVs only to those borrowers with stronger profiles or make up for the extra risk with higher margins. For instance, it may be prudent to have lower LTVs on loans offered to

[7] See: Fitch EMEA RMBS Rating Criteria “Empirical evidence suggests that willingness to pay is indicated by the amount of equity invested in the property. This can, for example, be determined by the OLTV. The borrowers' perception of the magnitude of their own equity, or wealth, invested in the property at the time of purchase significantly affects the likelihood of default when the borrower is in financial distress”, Nov. 2016.

[8] See: Moody's “Moody's Approach to Rating RMBS Using the MILAN Framework”, Sep. 2016.

[9] See: See S&P Global: “Methodology And Assumptions: Assessing Pools Of European Residential Loans”, Dec. 2016.

[10] See Fitch (EMEA RMBS Rating Criteria p14). “The indexation figures are calculated by only capturing 50% of property price increases (except in the UK where Fitch captures a 100% increase) while considering 100% of price decreases. In countries where there is a choice of more than one home price index, Fitch selects an index based on accuracy, frequency of calculation and coverage of the market. In countries where indexation data is limited or not sufficiently reliable, the agency may reduce indexation credit further. In most countries, Fitch distinguishes different regions and property types when indexing property values. Changes in property values from the time of analysis to the point of foreclosure are captured in the HPD component of Fitch's MVDs.”

self-employed borrowers (who are potentially more likely to default) than non-self-employed borrowers, all else being equal. In terms of loan performance monitoring, there is a strong incentive for lenders to prioritise higher LTV loans, particularly when real estate prices decrease, because the possible liquidation value of the property declines overtime. In terms of loan management, borrowers with high LTV loans should, therefore, expect less flexibility than others. In Structured Finance, the LTV can be used as a criterion to select loans to be included in a revolving portfolio.[11] If banks can impose LTV ceilings to limit the risks on their loans, they can also decide to lend more by increasing their LTV limit. Higher LTVs can, therefore, be indicative of a relaxation in lending criteria, a trend often seen prior to a banking crisis. While it is generally believed that higher LTVs at origination indicates a loosening in lending standards, regulation can also provide incentives to borrow with higher LTVs. In the Netherlands, for example, tax deduction on interest explains high LTVs at origination.

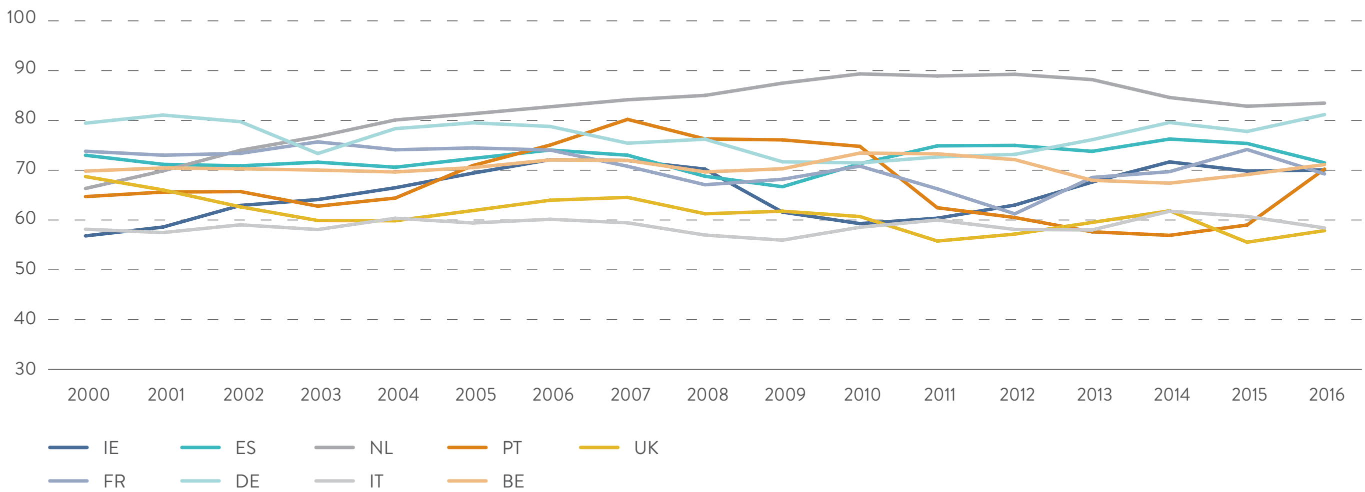
LTV limits are widely used in prudential regulation, often alongside limits on the DTI. Such policies were often implemented in advanced economies following the housing busts of the Great Recession[12] and appear to have been quite effective. The goal of these policies is to encourage higher equity stakes and lower leverage to increase borrower resilience and reduce bank losses in a real estate downturn. Some countries, thus, impose a simple hard LTV limit, others combine a LTV limit with other requirements while other countries have market-specific LTV limits (in terms of price or region),[13] depending on the region or economic cycle. Setting the appropriate LTV limit is a balancing act. If the limit is set too high, the loans will be riskier. If the limit is set too low, first time buyers may be priced out of the market. Sudden modification of implementation of the LTV ceiling could also have a negative impact. For example, the lowering of the LTV limit in the Netherlands is being implemented gradually by increments of 1% per year to reach 100% in 2018 (from 104% in 2014). Some categories of borrowers will be better able to cope with high LTVs if, for instance, they benefit from some sort of state support.

Also, the same LTV ceiling may not be appropriate for all stages of an economic cycle. An 80% LTV at the peak of a house price bubble may not be sufficient to avoid a loss in case of default. In the wake of a house price slump, a bank may grant 100% LTV loans to clients to purchase repossessed properties in order to clean its balance sheet (effectively swapping a defaulting borrower for a solvent one).

EVIDENCE FROM EUROPEAN DATAWAREHOUSE

The role of the LTV for credit risk assessment led to the inclusion of several LTV-related fields in the ECB's RMBS reporting template (see appendix). Some of these fields are optional while others are mandatory, and make it possible to store LTV relevant information overtime. Field AR135 (Original Loan to Value)[14] is a mandatory field and is, therefore, available for all RMBS loans in ED. Exhibit 3 shows that the average OLTV per country has fluctuated substantially from 2004 to 2014. Clear cyclical fluctuations are particularly visible in Spain, Ireland and Portugal. In all three countries, OLTVs increased prior to 2007 and decreased afterwards. In the case of Spain and Ireland, where house price adjustments were very sharp, we see that LTVs increased again after 2009 and 2011 respectively. This increase in LTVs after the house price correction could have several explanations. It may be due to renegotiations aimed at helping borrowers repay their loans (with a higher LTV because the house price decreased faster than the amortisation of the loans). It may also be because banks believed that house prices had reached a floor and were then willing to lend again with higher LTVs. Or, it may be the case that banks were willing to underwrite 100% LTV loans to help clients purchase the homes they had repossessed. In other countries like UK and Italy, OLTVs remained relatively stable and in the same range (lowest in Europe), while they have stayed relatively high and stable in the Netherlands.[15]

EXHIBIT 3 | AVERAGE LTV AT TIME OF LOAN ORIGINATION IN EUROPEAN COUNTRIES



Source: Moody's Investors Service

[11] See Fitch (EMEA RMBS Rating Criteria p39), criteria can set a limit on the OLTV for the entire portfolio or Current LTV limits for the entire portfolio or even limits on the volumes of loans in certain LTV buckets.

[12] See IMF, Cerutti, Claessens and Laeven “The Use and Effectiveness of Macroprudential Policies: New Evidence”, 2015.

[13] See BIS, De Araujo, Barroso and Gonzalez (Loan-To-Value Policy and Housing Loans: Effects on constrained borrowers), 2016.

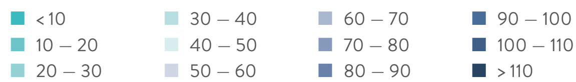
[14] Defined in the ECB taxonomy as “Originator's original underwritten Loan To Value ratio (LTV). For 2nd lien loans this should be the combined or total LTV. If no data available use the following input ND”.

[15] In the Netherlands, there is also a specific product called “savings mortgage”. The borrower saves money for say 30 years on a separate bank account and does not repay the mortgage in the meantime. When moving, the borrower takes a new mortgage which includes the saving. So, the savings are not subtracted from the new total loan. This also results in high LTVs at origination. Thus often (as is the case here), the Dutch LTV's are higher than they should be if the savings part was accounted for. From 2014 onwards, however, most of the new mortgages are no longer savings mortgages.

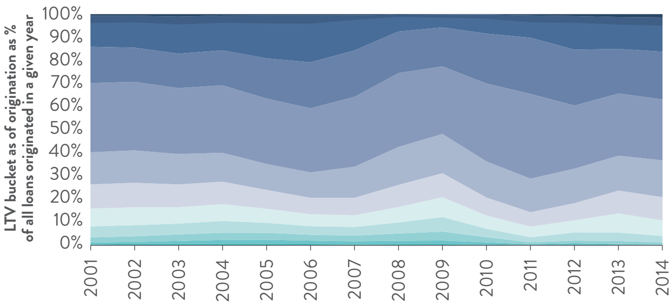
The breakdown of the various LTV buckets differs substantially by country. The average values (around 60%) for Italy and UK, are very close, and yet, the following exhibits show noticeable differences in LTV breakdown in these two markets, with fewer low and high LTVs in Italy compared to the UK. Exhibit 4 shows the evolution of the breakdown of loans originated per OLTV bucket overtime, for the countries for which ED has the most data. All patterns differ either by the proportion of loans in each OLTV bucket or by the evolution of the breakdown of OLTV buckets overtime. In Exhibit 3 and 4, we see that:

- OLTVs in Italy are overall lower than in other countries, with few LTVs above 90%. This could be because Italy did not undergo a housing boom/bust fed by private debt as seen in other countries. It could also be because legal proceedings in Italy are notoriously long, and banks may want to protect themselves by ensuring higher levels of borrower equity at loan origination.
- Ireland and Spain, which both experienced severe property price crises, show similar patterns. The proportion of loans issued with OLTVs above 90% increased in the years before the crisis, probably indicating a relaxation in lending criteria in a frothy real estate market, and decreased during the crisis years, suggesting a tightening of lending criteria accompanied by lower volumes of new loans. The subsequent renewed increase in LTVs at origination in these markets could be due to renegotiations of mortgage terms and conditions, or also that banks are more willing to lend with higher LTVs in post bubble environments. In Portugal,[16] LTVs increased up to 2007, and decreased afterwards during the credit crunch.
- The pattern for Dutch RMBS looks more steady, with an ever-greater proportion of loans issued with 80% OLTVs or more up to 2012, and a subsequent decrease. The Netherlands is also the only country surveyed where OLTVs in excess of 100% represent a significant proportion of the sample. Dutch regulation aimed at limiting tax deduction on interest and the incremental phasing in of a cap on LTVs may partly explain the reduction in OLTVs in the last two years. Germany, where interest is also, but to a lesser extent tax deductible, also shows high LTVs.
- In the UK, we observe very few OLTVs above 100%, and average LTVs are as low as in Italy, with somewhat more extreme values (more loans in high or low LTV buckets). In the context of chronically high demand and a relatively low supply of properties (and consequently high property prices), one can suppose that borrowers must either buy with a high LTV to step on the “property ladder”, or sell or mortgage a property they already own. This may explain the relatively high percentage of loans with low OLTVs in the UK.
- In France, a substantial proportion (more than 20%) of loans report OLTVs of 100% or more. This is partly because LTVs in excess of 100% are reported as conservative estimates for some of the properties for which the detailed property value analysis was not conducted at loan origination. It is also partially because the LTV in France is only one of the factors considered by banks, which otherwise typically require a 10% deposit at least. Borrowers would have to be particularly safe to obtain a 100% LTV loan.
- In Belgium, where there were no boom/bust cycles, the proportions of LTVs look relatively evenly distributed and stable. It is noticeable that Belgian LTVs are calculated with an “all sums” calculations.[17]

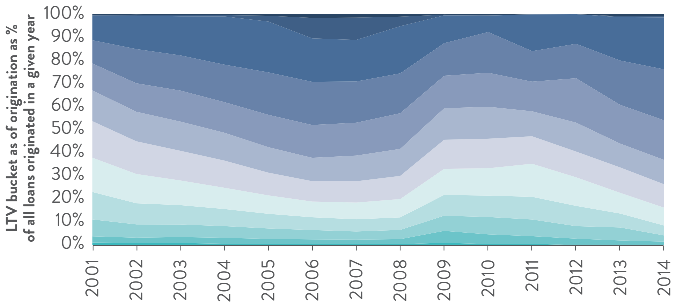
EXHIBIT 4 | EVOLUTION OF LTV AT ORIGINATION IN 6 EUROPEAN COUNTRIES



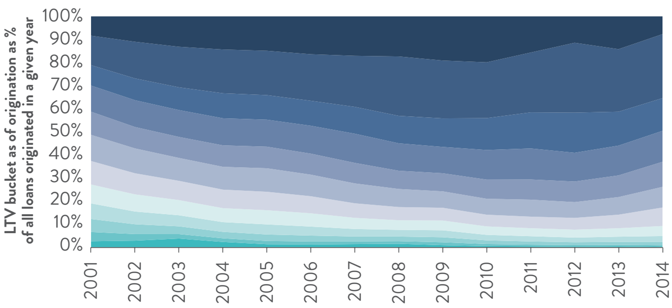
LTVS ON SPANISH MORTGAGES AT TIME OF LOAN ORIGINATION



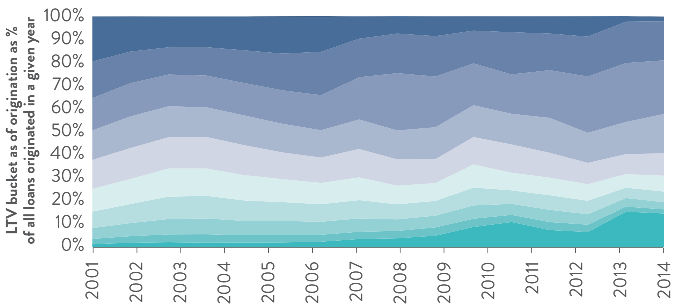
LTVS ON IRISH MORTGAGES AT TIME OF LOAN ORIGINATION



LTVS ON DUTCH MORTGAGES AT TIME OF LOAN ORIGINATION



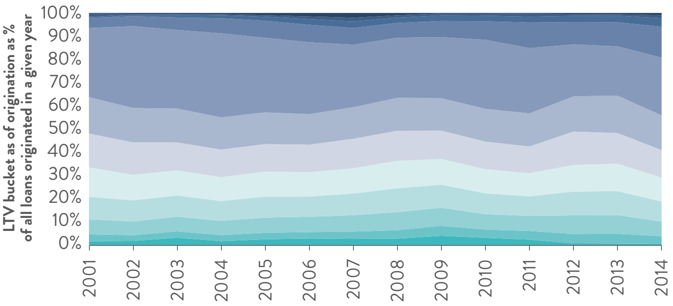
LTVS ON UK MORTGAGES AT TIME OF LOAN ORIGINATION



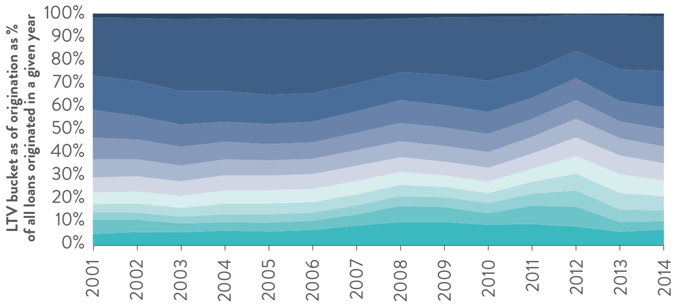
16 In Exhibit 4, we truncated the chart for Portugal in 2010. This is because there are not enough new deals and therefore not a sufficient number of observations to give a representative picture after this point.

17 See EDWIN commentary for Belgian RMBS deals “is computed at borrower level as the sum of current nominals of all loans to a borrower (including pari passu and loans ranking prior to securitised loans) divided by the total current values of his properties”.

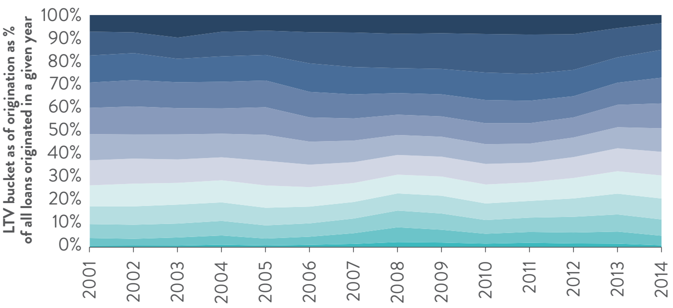
LTVS ON ITALIAN MORTGAGES AT TIME OF LOAN ORIGINATION



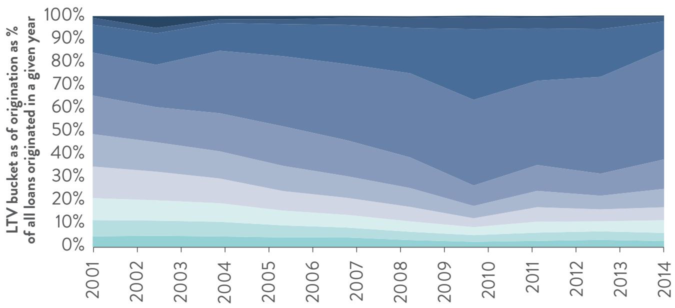
LTVS ON FRENCH MORTGAGES AT TIME OF LOAN ORIGINATION



LTVS ON BELGIAN MORTGAGES AT TIME OF LOAN ORIGINATION



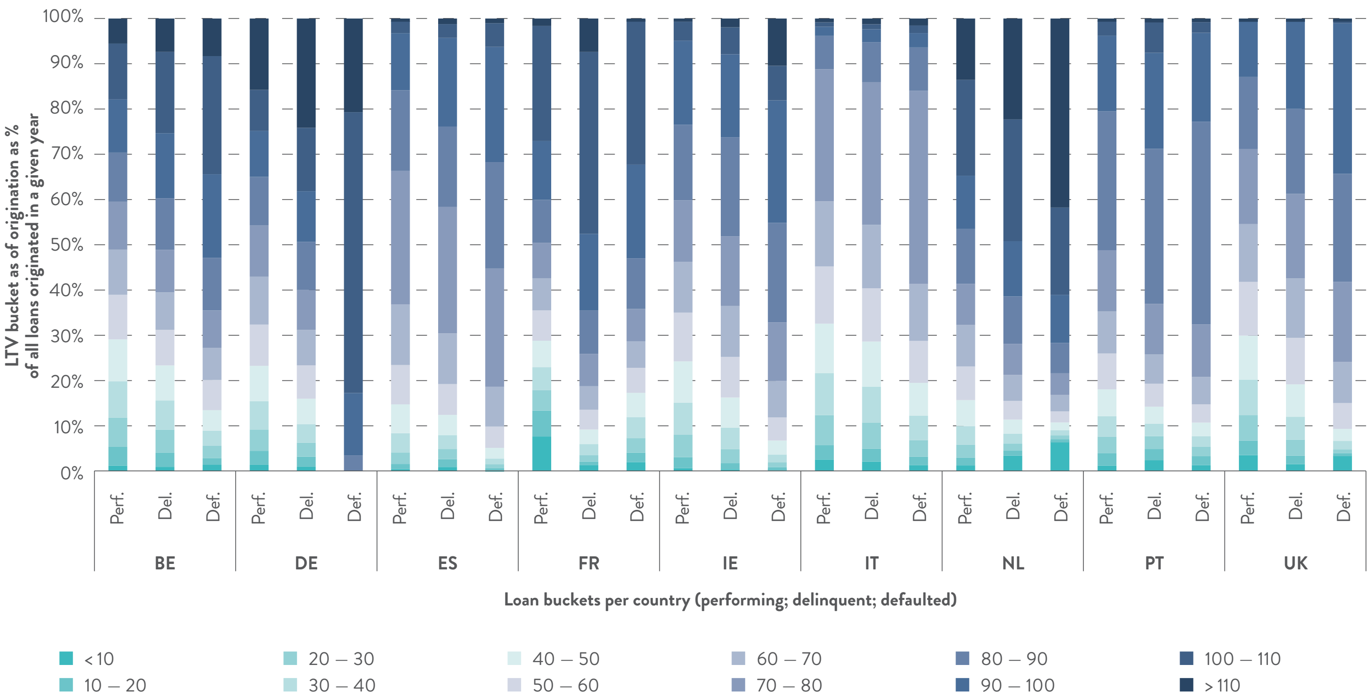
LTVS ON PORTUGUESE MORTGAGES AT TIME OF LOAN ORIGINATION



Source: European DataWarehouse

As expected, loans with higher LTVs are more common among delinquent and defaulted loans. Exhibit 5 shows the breakdown of the OLTV for the loans that were active in ED’s database as of Q1 2017 by country and loan status: performing; delinquent; or defaulted). It shows that in all countries, except France,[18] loans with higher LTVs are more common among delinquent and defaulted loans as compared with performing loans.

EXHIBIT 5 | LTV AT ORIGINATION AND LOAN PERFORMANCE

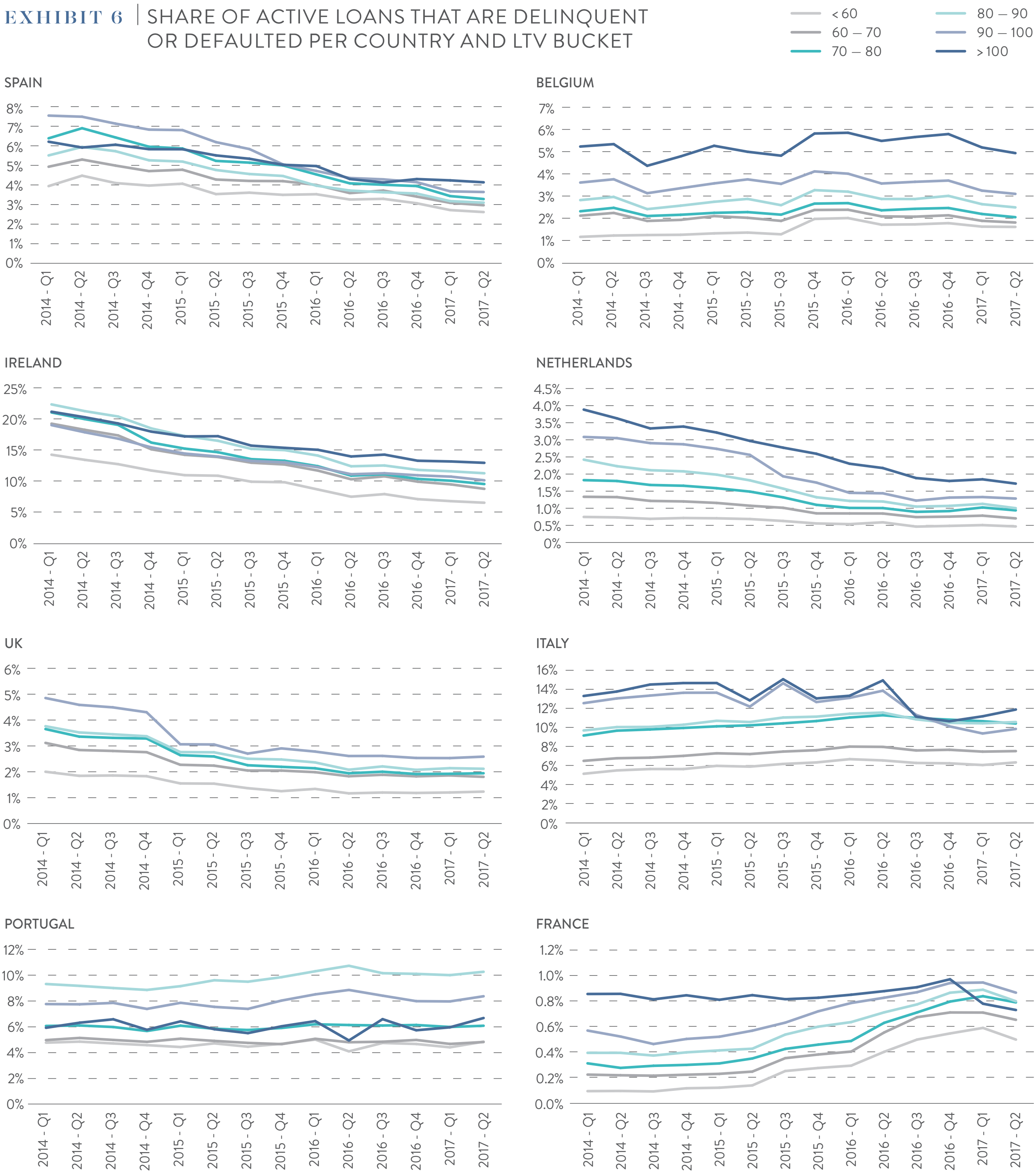


Source: European DataWarehouse, data providers; Active loans as of Q1 2017

[18] For which 100%+ LTV assumptions are used when detailed house price evaluations are not available. Thus, some of the French loans for which an LTV in excess of 100% is recorded have “true” LTVs below this value.

For the countries of the sample, loans with a lower LTV almost always perform substantially better than loans with a higher LTV. Exhibit 6 shows the evolution of the percentage of active delinquent and defaulted loans since Q1 2014. Overall, delinquency levels have decreased in all countries (except France) over this period, although the actual delinquency levels may not be comparable for all countries because arrears and default definitions can vary depending on the market. In some countries, for example, the Netherlands, the number of months in arrears is typically rounded up (i.e. a loan one days in arrears will be considered as one month in arrears), whereas in other markets, the number of days in arrears is rounded down, and loans may not be flagged as “in arrears” until they are already several months overdue. Also, in countries where property crises were particularly sharp or, where recovery processes can be lengthy, the number of underperforming loans is higher as the recovery processes for defaulted loans is still ongoing. The same observation also applies to countries with high levels of technical arrears.

EXHIBIT 6 | SHARE OF ACTIVE LOANS THAT ARE DELINQUENT OR DEFAULTED PER COUNTRY AND LTV BUCKET



Source: European DataWarehouse, data providers; Active loans from Q1 2014 to Q2 2017; The aim of these charts is to illustrate the performance rank ordering of loans. These charts only show loans reported to have a delinquent or defaulted status (AR166 = 2 or 3). A loan that is one day in arrears and is reported as delinquent is, therefore, included. The actual levels shown may depend on local reporting practices.

APPENDIX: ED'S LOAN BY LOAN DATA SAMPLE

Our RMBS database gathers loan by loan data for securitised portfolios representing 14 million loans from 627 RMBS transactions as of June 2017. Thus, the representativeness of the sample is subject to the issuance of new deals, and will mirror some selection bias (cherry picking) for the respective deals (loans included in securitisations are typically performing on closing date). Our data sample is also subject to survivor bias as the loans in our sample are the ones that were still active by the time the data was first reported to European DataWarehouse. Loans that would have been liquidated, repaid or refinanced prior to this time may, therefore, be excluded. To limit the risk of drawing the wrong conclusions, we decided to focus on the markets for which ED has the greatest number and volumes of loans, and limit in time the starting date for the study (delinquency charts thus start in Q1 2014). In previous studies, our samples were found to be geographically representative (the proportion of loans in a region tends to match the importance of that region in each country). For some countries, the influence of very large portfolios must also be taken into account.

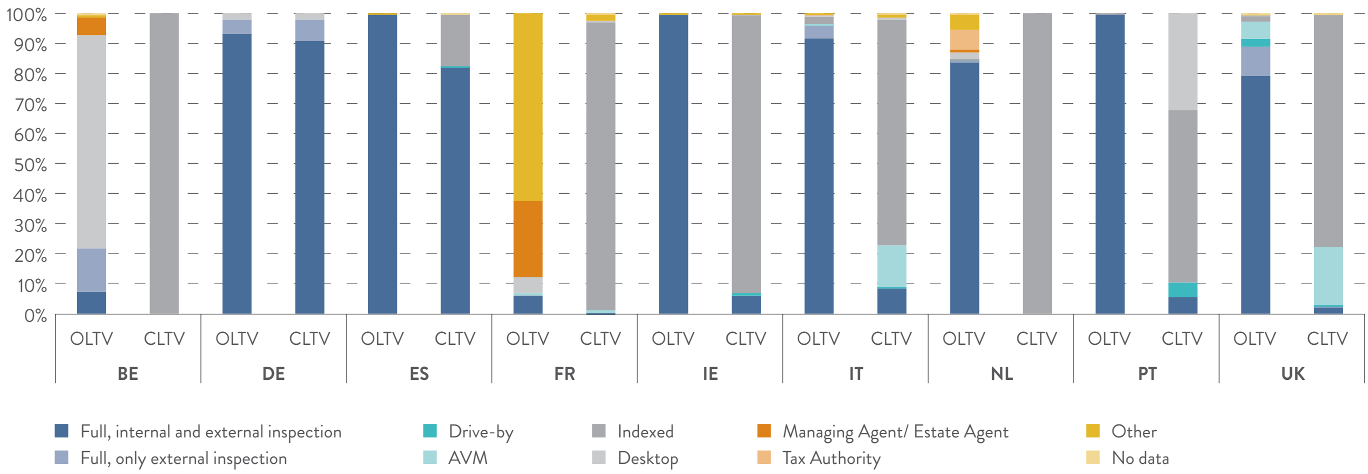
We based our queries on all the loans reported in RMBS pools, regardless of loan purpose. Loan purpose is provided by mandatory field AR59. A variety of loan purposes is available in this field including equity release or debt consolidation. As appears in Exhibit 7, purpose varies considerably from one country to the next.

The type of evaluation conducted depends from country to country, but generally, "full internal and external inspection" seems to be the mean most used for the calculation of the Original LTV reported in ED, while the current LTV (CLTV – regardless of the way the evaluation is conducted) is often based on an indexed value, in case the property value was revalued (Exhibit 8).

EXHIBIT 7 | BREAKDOWN OF THE SAMPLE BY MORTGAGE PURPOSE

Source: European DataWarehouse

EXHIBIT 8 | ORIGINAL VS REVISED VALUATION TYPE (FOR LOANS FOR WHICH AN UPDATED VALUATION IS GIVEN)



Source: European DataWarehouse

[19] See for instance ED's explanatory report on the standardisation of geographic information *https://eurodw.eu/wp-content/uploads/ED-Explanatory-Report-on-standardised-geographic-information-for-European-Loan-Level-Data-23.03.pdf*

The LTV is recognised as a key credit risk indicator and the ECB template mentions a list of fields directly related to the LTV calculation (Exhibit 9).

It should be noted that the valuation amount may relate to the sum of several property values used as collateral for the loan. Also, although mandatory data must be reported, optional data is not always reported.

EXHIBIT 9 | ORIGINAL VS REVISED VALUATION TYPE (FOR LOANS FOR WHICH AN UPDATED VALUATION IS GIVEN)

FIELD NUMBER	PRIORITY	TAG	FIELD NAME
AR135	Mandatory	Static	Original Loan to Value
AR136	Mandatory	Static	Valuation Amount
AR137	Mandatory	Static	Original Valuation Type
AR138	Mandatory	Static	Valuation Date
AR139	Optional	Static	Confidence Interval for Original Automated Valuation Model Valuation
AR140	Optional	Static	Provider of Original Automated Valuation Model Valuation
AR141	Mandatory	Dynamic	Current Loan to Value
AR142	Optional	Static	Purchase Price Lower Limit
AR143	Mandatory	Dynamic	Current Valuation Amount
AR144	Mandatory	Dynamic	Current Valuation Type
AR145	Mandatory	Dynamic	Current Valuation Date
AR146	Optional	Dynamic	Confidence Interval for Current Automated Valuation Model Valuation
AR147	Optional	Dynamic	Provider of Current Automated Valuation Model Valuation
AR148	Optional	Dynamic	Property Value at Time of Latest Loan Advance
AR149	Optional	Static	Indexed Foreclosure Value
AR179	Mandatory	Dynamic	Sale Price lower limit

Source: ECB Data templates (RMBS)

First time buyers in Ireland and in the UK

By Anthony O'Brien, Banking & Payments Federation Ireland and Mohammad Jamei, UK Finance

INTRODUCTION

Ireland and the UK were significantly affected by the financial crisis in 2007-2008, though the two countries experienced different boom and bust cycles. The Irish market experienced stronger price growth in the lead up to the financial crisis but also had a larger house price correction in the aftermath. The UK housing market by comparison experienced less house price growth and correction relative to Ireland.

This research looks at the Irish and UK housing and mortgage markets, with a specific focus on first-time buyers (FTBs) and their characteristics. The first section looks at housing supply and demand in both countries, the second section looks at how characteristics of FTBs have evolved over time and the third section looks at government housing schemes and regulation. In our conclusion, we bring these elements together.

1 — HOUSING SUPPLY AND DEMAND

While the focus of this article is predominantly on FTBs, they must be considered in a wider housing market setting, as they are subject to external pressures from other parts of the housing and mortgage market. One of these factors is housing supply and demand.

Housing demand is driven by a number of factors, including population growth, migration, an ageing population, family formation and the proportion of young people embarking on further education. We also look at housing demand by tenure, as different tenures have seen been influenced by these changes in different ways.

Housing supply in both countries has been a major issue in recent years and there are strong concerns that the available stock has fallen short of meeting demand.

POPULATION GROWTH AND MIGRATION

Trends in the key household formation age groups (18-29 year olds and 30-40 year olds) have been very different in Ireland and the UK. The number of 18-29 years olds in the UK rose by 15% between 2004 and 2015, while the number of 30-40 year olds fell by 8%.

By contrast, the Irish 18-29 year old segment shrank by 20% over the same period, while the number of 30-40 years grew by 15%. The fall in the younger cohorts is attributed to high net outward migration.

These figures imply that housing demand is increasing in the UK. Due to outward migration between 2011 and 2015, demand in Ireland may be artificially low. However, net immigration returned in 2016 and it is expected to grow in coming years, adding to demand.

AGEING POPULATION

Europe's population is ageing and though Ireland and the UK have two of the youngest populations in Europe, the median age is expected to rise by 6.3 years and 5.2 years in Ireland and the UK, respectively, by 2080. The share of the population aged 65 years or more will grow significantly: almost doubling to 27% in Ireland and jumping to 28% in the UK.

The headship rate among older people is also higher as older people are more likely to live alone. Eurostat indicates that 29% of the population aged 65 or more lived alone in 2011 and "while a higher proportion of the elderly population lived in rural regions, those who were in urban regions were more likely to be living alone"[1]. In addition, relatively few older households move residence each year (3-4%), with most of those moving to other private housing. These findings imply higher headship rates where residential property is most scarce.

FAMILY FORMATION

Couples are marrying much later than in the previous generation. The average age of grooms in Ireland rose from 26.2 years in 1977 to reach 35.3 years in 2015, according to the Central Statistics Office (CSO), while the Office for National Statistics (ONS) reports that the average age in the UK rose from 28.8 years in 1974 to 37 years in 2014. Women marry, on average, about two years earlier than men.

The average age of new mothers has also increased since the 1970s. The increase in the average age has accelerated in Ireland in recent years. Underlying that change is a significant drop in the number of first-time mothers since 2009 and the increasing importance of older age groups: 30-44 year olds rose from 45% of new mothers in 2008 to 59% in 2015.

EDUCATION

Higher educational attainment – which typically leads to higher levels of income – increases the likelihood of individuals forming households, but at an older age, as they remain in education for longer. On the other hand, individuals who leave the education system earlier typically enter the labour market and form a family at a younger age. As a result, household formation in the youngest-age groups are typically driven by individuals entering the labour market, while higher education drives formation rates as individuals get older.

CHANGES IN TENURE

Housing tenures broadly fit into three categories: social housing (renting from local authorities or housing associations), private rental and homeownership. A number of factors may influence housing tenure and demand for different tenures. We consider these in the context of each tenure.

SOCIAL HOUSING

Some households rely on social or subsidised housing. The provision of social housing by local authorities has been steady in Ireland, accounting for 6-7% of housing stock in recent years, but it has fallen in the UK.

Local authority housing in the UK accounted for 11% of the housing stock in 2005, falling to just 8% by 2015. Housing associations have made up the shortfall as

[1] People in the EU - statistics on an ageing population, 2017. [Online] Available at: *http://ec.europa.eu/eurostat/statistics-explained/index.php/People_in_the_EU_–_statistics_on_an_ageing_society* [Accessed 17 April 2017].

the stock of housing association properties exceeded local authority properties for the first time in 2008. By 2015, housing associations and local authorities combined accounted for 18% of the housing stock, up slightly from 14% in 2005. As in the UK, housing associations have emerged as important providers of housing in Ireland with housing association completions exceeding local authority completions for the first time in 2011.

PRIVATE RENTAL

Demand for rental properties has been and is likely to remain strong. The factors underpinning this include demographic and social changes with population growth and immigration, while a growing number of people live alone; some opting to settle down later in life while others remain in education for longer.

Pressure from other tenures is another reason, as high house price growth relative to earnings means those wanting to buy need to save for longer and as a result remain in rented properties for longer too. It has also meant that, for some, buying a home may no longer be feasible, so living in rented accommodation can become permanent.

HOMEOWNERSHIP

Most people in Ireland and the UK live in owner-occupied housing. However, both countries have experienced similar falls in homeownership since the mid-2000s. The percentage of people living in owner-occupied housing dropped from about 78% and 70% in Ireland and the UK, respectively, in 2005 to 70% and 63% by 2015, according to Eurostat.

This is the result of a mixture of factors discussed earlier.

HOUSING SUPPLY

There are two sources of supply in the private housing market:

- **Existing property –** second hand properties come onto the market for a number of reasons including homeowners trading up/down or moving for work or other reasons, estate sales following the owner's death and investors selling up.
- **New property –** these include builds started in the current construction cycle or unfinished housing from a previous construction cycle that are resolved.

EXISTING PROPERTY

As the UK population is nearly 14 times larger than Ireland's, the measure we use is population per housing unit (PPHU) so that the comparison is like-for-like.

The Irish housing market grew rapidly in the 1990s and early 2000s with the PPHU dropping from 2.99 in 1991 to about 2.29 by 2006. The UK grew more slowly dropping from 2.43 to 2.29 over the same period. Since then, the PPHU in both markets has levelled off.

The downward trend in the Irish PPHU coincided with the significant expansion of the housing stock up to 2006.

Even where owners would like to sell they may not do so for a number of reasons including a preference to remain on an attractive existing mortgage rate, negative equity or a lack of suitable homes to buy.

NEW PROPERTY

New properties account for a relatively small share of property transactions. About one in ten property sales between 2010 and 2016 were for new properties. However, new properties add to the existing stock and increase the capacity of the housing market to absorb new households. A healthy housebuilding sector is crucial for the housing market to function properly.

Unfortunately, the housebuilding sector has been operating at or near historically low levels since 2009-10 in both countries.

While residential building planning permissions in the UK recovered to 2000 levels by 2016, in Ireland activity in the period 2011-2016 was four to five times lower than 10 years earlier. For building starts and completions[2], similar patterns emerge.[3]

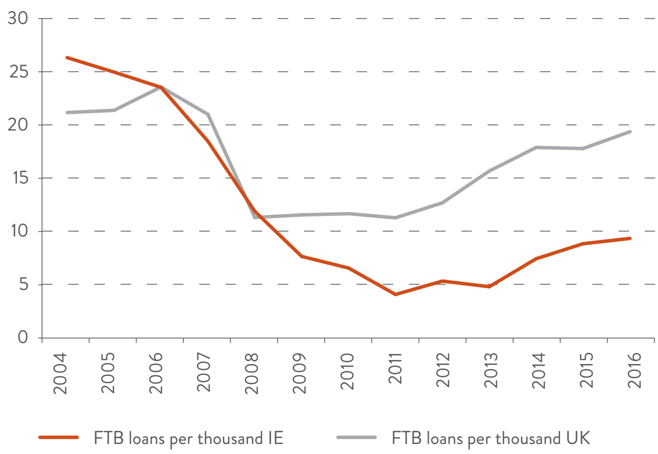
In the UK, activity declined after 2007 but by 2016 it was slowly rising and above 2009 levels to about 10 commencements or completions per thousand 18-40 year olds.

Building activity in Ireland, however, fell sharply after 2006 with both commencements and completions running at about one-fifth the level in 2004. By 2016, Ireland also had about ten commencements or completions per thousand 18-40 year olds (similar to the UK) but that compared with about 53 commencements and 52 completions per thousand in 2004.

2 — HOW FTBS FIT INTO THE MARKET AND THEIR INTERACTION WITH OTHER GROUPS

FTBs may come from the parental home, social housing or private rented accommodation. This often determines if they are forming a new household. Those leaving the parental home are forming new independent households but those coming from social housing or private rented accommodation are not unless they lived in shared accommodation.

FIGURE 1 | FTB LOANS PER THOUSAND 18-40 YEAR OLDS



Source: Banking & Payments Federation Ireland (BPFI), CSO, UK Finance (UKF), ONS

[2] In the UK, "a dwelling is regarded as completed when it becomes ready for occupation or when a completion certificate is issued whether it is in fact occupied or not". The data is based on returns from local authorities. In Ireland, the data is derived on the number of new dwellings connected by ESB Networks to the electricity supply.

[3] Activity is measured with reference to the key household formation age cohort of 18-40 year olds.

Following the boom and bottoming of the mortgage market in the 2000s, FTB activity has been growing since 2011 in the UK and 2013 in Ireland.

The UK market has recovered strongly with 19.4 FTB mortgage drawdowns per thousand 18-40 years olds in 2016, the highest level since 2007. In Ireland, there were 9.3 per thousand, the most since 2008. However, while UK volumes are close to the 2006 peak of 23.6, Irish volumes are well short of the peak on 26.4 in 2004.

In volume terms, FTBs peaked in 2004 in Ireland and in 2006 in the UK. The FTB share of mortgaged house purchases in Ireland fell below 35% in 2005 but jumped to more than half from 2009, partly due to the sharp fall in buy-to-let activity. In the UK, FTBs accounted for less than 35% until 2012 but by 2016, they accounted for more than 40% of new mortgaged house purchases.

Although we should not look at FTBs in isolation. In the mid-2000s, rising house prices led to FTBs making up a smaller portion of the market, relative to home movers.

Between 2004 and 2012, movers accounted for more than half of property purchase mortgages in both Ireland and the UK. By 2016, movers' share of new purchase mortgages had fallen for six successive years in the UK and two in Ireland.

The relative decline of movers suggests reduced market liquidity. This limits supply of second hand properties for sale, possibly because they are in negative equity, they have an attractive mortgage rate that they do not want to lose, or because of relatively high transaction costs. This has a knock-on effect on sales where those willing or able to sell may struggle to find a suitable property to buy.

CHARACTERISTICS OF FTBS

Over the last 12 years, the characteristics of FTBs have evolved differently between Ireland and the UK. Capital cities typically have different traits compared to the rest of the country, so Dublin and London are also looked at separately.

We consider the following factors:
- **Age;**
- **Loan-to-values;**
- **Loan-to-incomes;**
- **Loan term;**
- **Repayment type,**

And look each characteristic in turn.

AGE

The median age of an FTB in the UK has been 30 years, give or take a year, for the past twelve years. London is similar with a slightly higher average age, at 31. While the median age has been stable, the age distribution has been changing. In Ireland, the median age began to rise in 2012, reaching 33 years of age in both Dublin and the country as a whole by 2015.

In 2004, nearly half (49%) of FTBs in the UK and 60% of FTBs in Ireland were 30 years or younger. By 2016, this proportion had grown slightly in the UK to just over half (54%) of all loans, while in Ireland it was down to just over a quarter (29%).

There is an even stronger divergence when focussing on FTBs under 26 years of age. In both countries, they accounted for around one in five (22% in the UK, 19% in Ireland) FTBs in 2004. By 2016, one in five (21%) FTBs in the UK were still in that age bracket, but in Ireland, this had fallen to just one in 33 (3%).

The same trends that are observed in Ireland are also observed in the capital city, Dublin. Around one in five (18%) FTBs in 2004 were younger than 26, but by 2016 only 2% of FTBs were in this age group.

For the UK, different trends have been emerging from London compared to the rest of the UK, especially amongst younger FTBs.

Those aged under 26 accounted for 14% of all FTBs in 2004 in London. But unlike the rest of the UK, this proportion did not stay stable over time. In London, this group accounted for just 9% of all FTBs in 2016.

LOAN-TO-VALUE

The most visible trend when looking at loan-to-values (LTVs) is that higher LTVs (above 90%) are much less prevalent than in the pre-crisis period. While there has been some recovery in higher LTV lending in 2016, it is still on a much smaller scale than it was back in 2008, or even 2004. By 2016, higher LTV lending in Ireland accounted for a historically low proportion of the FTB market.

In the UK, higher LTV lending accounted for 38% of loans to FTBs in 2004. This proportion fell away in 2008 and continued to fall in 2012. Given house prices were falling over much of that period, the supply of higher LTV loans fell sharply as lender's risk appetites reduced and the gap between borrowers' financial resources and property prices narrowed. By 2012, just 3% of lending was at these higher LTV bands. Since 2012, the picture has improved somewhat, partly as a result of government schemes, and 13% of loans were above 90% LTV.

Higher LTV lending in Ireland accounted for more than half of all FTB loans (53%) in 2004, rising to 62% in 2008, before contracting sharply in 2012 and 2016, to 31% and 6% of all loans, respectively. Loans in the band just below (81-90%) accounted for most of the lending in 2016. Although regulatory limits on LTVs were introduced in 2015, the prevalence of higher LTVs had already declined.

The capital cities broadly followed the national trends but by 2016 there was a larger proportion of loans in the lower LTV bands in the capital cities than in the rest of the country.

LOAN-TO-INCOME

In both the UK and Ireland, macro-prudential regulation has been put in place over the last few years which will have affected the distribution of loan-to-income ratios (LTIs), which is explored later on.

In short, the Financial Policy Committee (FPC) in the UK imposed a soft cap on LTIs at 4.5, with 15% of new loans allowed to be at or above that limit. This came into effect in October 2014. In Ireland, LTIs for home buyers have been limited to 3.5 by the Central Bank of Ireland (CBI) since February 2015 but 20% of new lending is allowed to exceed this limit.

LTIs in the UK have been increasing over time. Lending below an income multiple of 3 made up more than half (53%) of all lending in 2004 in the UK. This has steadily fallen over time and by 2016 it only accounted for a third (32%) of lending to FTBs, driven by a shift to the higher LTI bands. So while lending above 3.5 LTI was only a third (31%) of all lending in 2004, it now accounts for the majority (51%) in 2016.

Growth in higher LTI lending has been stronger in London. Lending above 3.5 LTI accounted for 43% of all lending to FTBs in 2004. By 2016 this had grown to 68%. While average LTVs are typically lower in London than the rest of the country, average LTIs have been higher. This is likely to reflect risk appetite for lenders as they either allow borrowing at a high LTI or LTV, but not both. This means Londoners need to provide a larger deposit, but can borrow a higher multiple of their income.

Ireland had a similar distribution in LTIs relative to the UK in 2012. However, after the CBI's LTI rules were implemented lending in the 3 to 3.5 LTI band grew as a proportion of the total to reach a third (31%) from just 17% in 2012. This bunching is also evident in Dublin, as the proportion in the 3 to 3.5 LTI band grew from 18% to 40%. Lending above this band has fallen across Ireland and in Dublin between 2012 and 2016.

LOAN TERM

Stretching mortgage terms is one of the ways that FTBs can borrow more, allowing them to transact as prices increase. Itis no surprise then that the average length of an FTB mortgage is no longer 25 years and there has been a steady movement towards longer term mortgages.

One in three (33%) mortgages taken out by FTBs in the UK were over 30 years in length by 2016.

A similar story can be seen in London, where most loans in London fell into the 21 to 25 year category in 2008. By 2016, the picture was markedly different, as the proportion of loans over 30 years long had more than tripled to 31%, from 9%.

Ireland has experienced a similar trend to the UK of longer mortgage terms, except in 2008, which was a bit of an anomaly, as mortgage terms over 30 years accounted for two-thirds (65%) of activity, whereas in 2004 the same figure would have been 23% and in 2012 it was 39%. This was the same for Dublin too.

Loan terms lengthened significantly up to 2008 in Ireland at a time when house prices were peaking and affordability was stretched. For example, the median term had reached 33 years in Dublin before easing back and levelling off at 30 years.

Apart from this blip; there has been a trend of the higher loan term buckets accounting for a larger portion of FTB loans.

REPAYMENT TYPE

A relatively small number of FTB mortgages have been advanced on an interest-only basis in Ireland. One in 25 (4%) mortgages advanced to FTBs in 2004 were interest only, rising to one in 20 (5%) in 2008 then rising slightly again (6%) in 2012 before effectively disappearing from the market. We only have data for 2012 and 2016 for Dublin, and in both of those periods almost all loans to FTBs were on a capital and interest basis.

This is a very different picture to the UK, where in 2008, about one in four (26%) mortgages were interest only. This was even higher in London, as nearly half of all FTB loans (45%) were interest only. By 2012 however, this proportion had fallen to one in 50 (2%) in the UK and one in 20 (5%) in London. As with Ireland, interest-only loans were virtually non-existent by 2016.

After the financial crisis, interest-only mortgages became less popular in the UK for lenders and borrowers. In 2014, new regulation[4] was implemented which meant interest-only loans could only be made in certain situations and where there was a credible repayment strategy.

The effective disappearance of interest-only mortgages in Ireland seems to reflect a change in lender appetite rather than regulatory intervention. Between 2009 and 2011, interest-only mortgages accounted for only about 2% of new FTB loans. That preceded the Consumer Protection Code 2012 which specified that lenders "must carry out an assessment to ascertain the personal consumer's likely ability to repay the principal at the end of the mortgage term".

3 — GOVERNMENT SCHEMES AND REGULATION

There have been a number of government schemes over the recent past in Ireland and the UK. The focus of many of these schemes has been FTBs, either directly, as only FTBs were eligible, or indirectly, as take up had been predominantly by FTBs.

In the UK alone, there are at least eight government housing schemes aimed predominantly at FTBs. This highlights the amount of help they require to be able to transact in the UK housing market and the extent of government intervention. By contrast, the only broad Irish government schemes for FTBs is the Help to Buy scheme in late 2016, which absorbed a deposit interest tax rebate introduced in 2014. Most other FTB schemes in Ireland have aimed to move households out of social housing into the private housing sector.

FIELD NUMBER

Stamp duty concessions and reforms (UK - 2008-16)	Stamp duty relief (IE - 2000-2010)	Mortgage interest relief (IE - ended 2012)

LOAN SCHEMES

Help to Buy: Equity Loan (UK - 2013)	Local authority mortgages (IE)	Home Choice Loan (IE - 2009)

MORTGAGE GUARANTEE/INSURANCE

Help to Buy: Mortgage Guarantee (UK - 2013 - 2016)

SHARE OWNERSHIP

Help to Buy: Shared Ownership (UK - 2015)	Incremental purchase schemes (IE - various)

DEPOSIT ASSISTANCE SCHEMES

Help to Buy: ISA (UK - 2015)	**Lifetime ISA (UK - 2017)**	Help to Buy (IE - 2014 & 2016)

OTHER SCHEMES

Affordable housing (IE - 1999-2011)	Low-cost housing sites (IE)	Mortgage allowance scheme (IE)

Government housing schemes in the UK and Ireland aim to improve accessibility to and affordability of housing and in particular, home ownership. The broad spectrum of schemes highlights the multi-faceted nature of issues in the housing market, as house prices have grown faster than incomes, transaction costs have increased, and there has been growing demand for housing, coupled with a weak supply response post-financial crisis.

[4] The Mortgage Market Review came into effect in April 2014.

In the UK, the schemes have had varied results. The equity loan scheme, along with the mortgage guarantee scheme and the Help to Buy ISA have all seen take up stronger take up in the midlands and the north of England.

The strength of the equity loan scheme outside London and the south east has partly been down to the fact the scheme had made some sites which were previously not profitable to build on, more worthwhile for housebuilders. The reason the mortgage guarantee scheme was used more extensively in these areas was because high LTV lending is more common, while lending in London and the south east tends to be at higher income multiples, even for FTBs.

Shared ownership is possibly the only scheme where take up is stronger in London and the south east, as high house prices relative to incomes means many cannot buy a property outright, so they opt for this scheme instead.

In Ireland, most government schemes have made little impact. The main exception is mortgage interest relief but this is no longer available for new borrowers. The Help to Buy scheme has been very active in its early months but it remains to be seen whether the activity levels will be sustained or how many applicants will make it to claim stage given the lack of new housing supply.

The government schemes discussed above also cater to a range of different households, from low paid to affluent in both the UK and Ireland. Broadly speaking, the equity loan and the mortgage guarantees scheme, as well as the Irish Help to Buy scheme, benefit those at or above average incomes the most, while the shared ownership schemes would help those lower down the income distribution.

REGULATION

The table below sets out the LTV and LTI limits in Ireland and the UK. On the face of it, the Irish measures appear more stringent with an LTV limit where none exists in the UK and a lower LTI limit, although the buffer for exemptions to the LTI limit is larger in Ireland than in the UK.

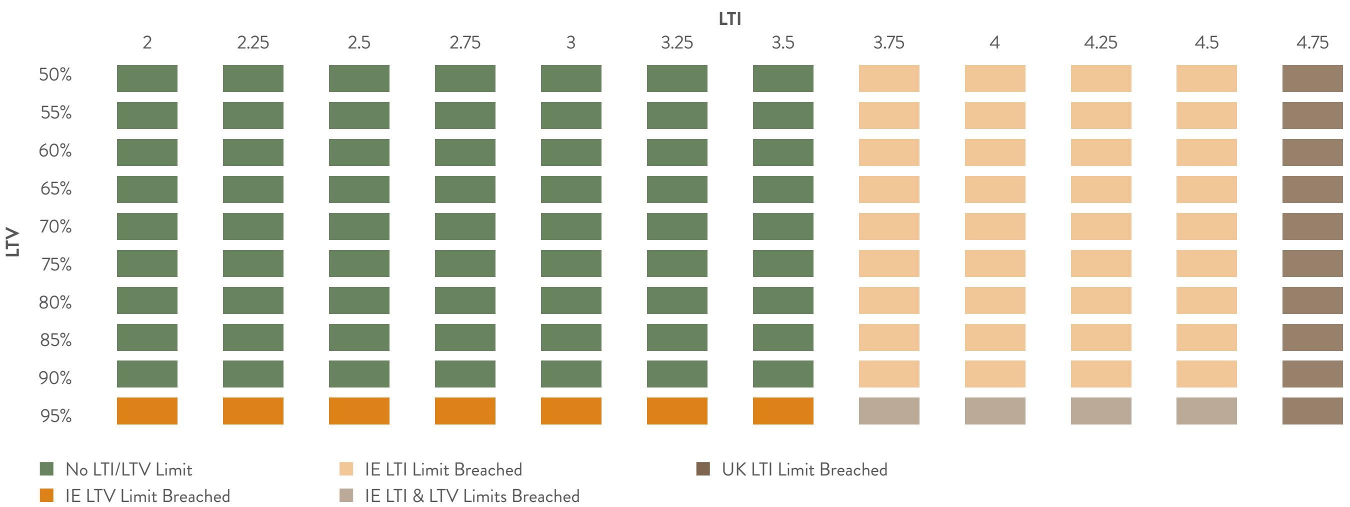
TABLE 1 | CURRENT MACRO-PRUDENTIAL MEASURES IN THE RESIDENTIAL MARKETS OF IRELAND AND THE UK

	UK *From October 2014*		IRELAND *From February 2015 (revised January 2017)*	
	LTV	**LTI**	**LTV**	**LTI**
Limit	None	4.5x loan to gross income multiple	90% LTV	3.5x loan to gross income multiple
Buffers	N/A	No more than 15% of new loans can be at or above this limit.	No more than 5% of new lending to FTBs can be above this limit.	No more than 20% of new lending for PDH mortgages can be above this limit.
Exceptions	N/A	Remortgages with no change to sum outstanding, and lifetime mortgages.	—	Switcher mortgages and housing loans for the restructuring of mortgages in arrears or pre-arrears.

As the figure below illustrates, mortgages with LTVs up to 90% and LTIs up to 3.5 do not breach any macroprudential limits in either country. In practice, most loans to FTBs are likely to be in this category.

Loans with LTIs greater than 3.5 but less than or equal to 4.5 would breach LTI limits in Ireland but not the UK, while loans with LTI over 4.5 would breach limits in the UK. Banks in Ireland are significantly more likely to allocate exemptions

FIGURE 2 | LTI AND LTV LIMIT OF MACRO-PRUDENTIAL POLICY



Source: CBI, Financial Policy Committee (FPC) to LTI limits to FTBs than movers. In the UK, the share of FTB mortgages with LTIs of 3.5 or more increased significantly between 2012 and 2016, with a bunching of activity up to an LTI of 4.5.

The exemptions for Irish FTB mortgages over 90% LTV are limited with most exemptions given to movers. As with LTIs, a significant share of LTVs are bunched between 81% and 90%.

CONCLUSION

Recent trends in FTB mortgage lending reflect general demographic factors affecting the scale and nature of housing demand, the failure of housing supply to keep up with demand, changing lender risk appetites and practices, tighter mortgage regulation to reduce demand and limit lenders' exposure to losses and government housing schemes to support supply.

The populations in both countries continue to grow but older people account for an increasing share and this segment is expected to expand in the decades ahead. The major life events that have prompted household formation, especially marriage and childbirth, are occurring later in life. Homeownership rates have fallen in recent years as a growing proportion of households remain in private rented accommodation for longer.

However, the population profiles in the two countries have diverged for younger age groups. The number of young people (18-29 year olds) has grown in the UK over the past decade but it has fallen in Ireland. These trends largely reflect strong net inward migration into the UK and significant net emigration from Ireland. This has not only artificially reduced the number of potential new households in Ireland, it has also resulted in an older FTB cohort than before.

Both governments have introduced schemes to support housing supply though Irish schemes have been more targeted towards FTBs.

On the other hand, regulators in both countries have sought to limit lenders' exposure to losses by limiting how much customers can borrow relative to their incomes or house values. Regulators have, to some extent, followed the lead of lenders who had already changed their risk appetites and lending practices after 2009.

High LTV borrowing (95% LTV and above) have been largely absent in both markets, especially for FTBs, for some time. However, there is evidence of loans bunching just under the macro-prudential limits in both countries: 90% LTV and 3.5 LTI in Ireland; 4.5 LTI in the UK.

Despite these challenges, FTB activity has been growing since 2011 in the UK and 2013 in Ireland.

The supply issues evident in both the UK and Ireland mean that prospective FTBs are competing with other FTBs and potentially also competing with bids from movers with housing equity or from landlords.

Unfortunately, the relative decline of movers may suggest reduced market liquidity. This limits the supply of second hand properties for sale, possibly because movers are in negative equity, they have an attractive mortgage rate that they do not want to lose or because of relatively high transaction costs. This has a knock-on effect on sales where those willing or able to sell may struggle to find a suitable property to buy.

Creating a favourable environment for FTBs must mean also addressing the needs of other residential property buyers and households in general.

Austria

By Wolfgang Amann, Institute for Real Estate Construction and Housing Ltd.
And Karin Wagner, Oesterriche Nationalbank

MACROECONOMIC OVERVIEW

According to OeNB's June 2017 Forecast, Austria's economy is recovering, with both domestic and foreign demand driving the rebound. Having accelerated by 1.5% in 2016, real GDP is projected to grow by 2.2% in 2017, 1.7% in 2018 and 1.6% in 2019. These figures represent upward revisions of 0.7 and 0.2 and 0.1 pps, respectively, versus the OeNB's December 2016 outlook. The unemployment rate is forecast to decline to 5.4% by 2019 from the historic peak of 6.0% seen in 2016. The average inflation rate in Austria was 1% in 2016 and is expected to rise to 2.0% in 2017 and to reach 1.8% in both 2018 and 2019.

The key driver of domestic growth in 2017, in addition to net exports, is the ongoing strength of domestic demand. Private consumption continues to benefit from the income tax reform that took effect in January 2016 and from the high level of employment growth. While these two factors continue to boost real disposable income growth in 2017, higher inflation has a dampening effect. Real consumption is projected to grow by 1.6% in 2017, accompanied by a slight decline of the saving ratio, to be followed by still fairly robust real consumption growth rates of 1.2% in both 2018 and 2019. Hence, private consumption remains a major pillar of growth of growth throughout the forecast horizon. The investment cycle will peak in 2017. The cycle is driven above all by investment in plant and equipment, with extension investment gradually becoming more relevant than replacement investment. The investment ratio[1] is expected to inch up to 23.2% in 2017 (2016: 22.9%) and to level off thereafter.

HOUSING AND MORTGAGE MARKETS

Residential property prices in Austria rose by 7.3% in 2016. After strong growth in the first half of 2016, prices stabilised in the second half of the year. In the fourth quarter, prices for Austria including Vienna increased by 4.6% year on year (after +9.5% in the second and +7.2% in the third quarter). However, there were considerable differences between Vienna and the rest of Austria in terms of price growth. While prices in Austria excluding Vienna rose by 12.8% y-o-y in the second quarter of 2016, i.e. at a pace last observed in the first quarter of 2012, Vienna experienced comparatively weak price growth. In the course of the year, the strong price hikes observed in Austria excluding Vienna moderated, coming down to 5.2% in the fourth quarter of 2016. By comparison, property prices in Vienna increased by 3.4% year on year in the fourth quarter. Against the previous quarter, price growth in Vienna amounted to 2.4% (after -2.4% in the second and -0.4% in the third quarter).

The results of the residential property price index published by the OeNB in cooperation with the Vienna University of Technology show a year-on-year plus of 3.8% in 2016 (2015: +2.2%). In *Austria excluding Vienna*, house prices increase by 9.1% over 2016 (2015: 5.1%).

Because of the price rise against the previous quarter, the OeNB fundamentals indicator for residential property prices in Vienna went up by 1.5 pps in the fourth quarter of 2016, reaching 19.8%. For Austria including Vienna, the indicator reached 6.0%, recording a somewhat weaker rise against the previous quarter (5.1%).

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

The growth of housing loans has stabilised over the past months. In April 2017, the nominal annual growth rate of housing loans extended by Austrian monetary financial institutions came to 4.1% (adjusted for reclassifications, valuation changes and exchange rate effects), up from 4.9% in August 2016. This means that housing loans are still expanding more slowly than the volume of residential property transactions in Austria.

The conditions for taking out housing loans have remained favorable. According to the results of the bank lending survey, banks' credit standards for housing loans to households remained stable in the fourth quarter of 2016, after some tightening in the previous quarter. Overall, there has been little change in lending standards in this segment over the past three years. Households' demand for housing loans remained unchanged in the last two quarters of 2016 according to the results of the bank lending survey.
Though the share of foreign currency loans in households' housing loans has continued to decline in recent months, these loans still imply large exchange rate risks. Since the marked increase observed in January 2015 (from 22.1% to 23.9%) in the wake of the strong appreciation of the Swiss franc that occurred after the Swiss National Bank abandoned the exchange rate cap vis-à-vis the euro, the share of foreign currency loans in housing loans has fallen, coming down to 16.9% in April 2017. Almost all foreign currency-denominated housing loans outstanding are denominated in Swiss francs (close to 97%).

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 2016 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" 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 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 consideration quality of housing, affordability and aspects of social integration.

[1] Nominal gross fixed capital formation as a percentage of nominal GDP.

Housing is well positioned in the political agenda and is the subject of 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 unresolvable differences in basic positions.

MORTGAGE FUNDING

Mortgage lending is principally financed through banks and Bausparkassen. In 2016 according to the ECBC Fact Book data, covered bonds play an important role in mortgage funding as mortgage backed covered bonds account for around EUR 30.8 bn, which is roughly equal to one third of the outstanding residential mortgages. RMBS play a more marginal role in Austria and according to the AFME database the alpine country had around EUR 1.5 bn RMBS outstanding in 2016.

	AUSTRIA 2015	AUSTRIA 2016	EU 28 2016
Real GDP growth (%) (1)	1.0	1.5	1.9
Unemployment Rate (LSF), annual average (%) (1)	5.7	6	8.5
HICP inflation (%) (1)	0.8	1	0.3
Outstanding Residential Loans (mn EUR) (2)	92,456	96,400	6,981,540
Outstanding Residential Loans per capita over 18 (EUR) (2)	13,048	13,427	16,838
Outstanding Residential Loans to disposable income ratio (%) (2)	45.2	45.4	n/a
Gross residential lending, annual growth (%) (2)	25.4	-3.8	3.2
Typical mortgage rate, annual average (%) (2)	2.0	1.9	2.6
Owner occupation rate (%) (1)	57.2	55.7	n/a**
Nominal house price growth (%) (2)	4.2	7.3	4.6

* 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 2017, 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, Bausparkassen 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, 2016 saw a further moderation in the wake of a relatively lacklustre start to the year. In volume terms, year-on-year GDP rose by 1.2%. As such, the economic expansion, which had fluctuated around 1.5% in the two previous years, proved quite robust. Growth of economic activity was chiefly driven by branches of the private sector. In manufacturing, which had been a key contributor to economic expansion in 2015, weak foreign demand – particularly from economies outside the euro area – halved the increase in added value in 2016. The construction sector also failed to sustain the growth rates of 2015, with added value peaking on mild weather conditions in the first quarter, then edging downwards but still ending the year higher than the average rise recorded since 2000. Non-market services, which include public administration, education, health care and social work, were affected by fiscal consolidation efforts and detracted from growth. Only market services, which account for over 50% of the total, continued to grow at the same rate, but this proved insufficient to offset the slowdown in other branches. Belgium's relatively low growth numbers are primarily caused by a smaller growth contribution by private consumption. Household consumption added 0.7% in real terms in 2016, 0.4 pps below the figure for 2015. In addition, general government consumption made a smaller contribution because of continued government savings.

The demand for labour received fundamental support from continued growth in economic activity, wage moderation and reduced wage costs resulting from the tax shift from taxes on labour to other sources of income. At the same time, the supply of labour was boosted by the tax shift in the shape of lower fiscal and parafiscal pressure for those in work, unemployment insurance reforms and end-of-career measures. In 2016, a total of 59,000 additional jobs were created, as against 42,000 in 2015.

While employment has grown, the number of unemployed job-seekers fell by in 2016 for the second year in a row (26,000 less in 2016 compared to 19,000 less in 2015). Nonetheless, the number of unemployed job-seekers still averaged 553,000 in the year, significantly higher than the pre-2007/2008 crisis numbers (500,000 in 2008). The unemployment rate remains a lot lower in Flanders, where it averaged 5.1% in the first three quarters of 2016, compared with 10.8% in Wallonia and 17.2% in Brussels.

Headline inflation in Belgium worked out at 1.8% in 2016, up from 0.6% a year earlier. This acceleration was largely due to a less rapid fall in raw energy prices – and the higher electricity prices they resulted in – as well as to higher oil prices (Brent) making inflation from oil-derived products less negative than in 2015. Food prices recorded average upticks of 3.1%, up from 1.8% in 2015. Underlying inflation – i.e. headline inflation excluding the volatile components of food and energy – worked out at 1.8% in 2016, below headline inflation for the first time since 2012.

Spending on residential property added a hefty 5.4% in 2016 and households would appear impervious to shocks and temporary blips, and dips caused by uncertainty. Furthermore, persistently low mortgage rates have reduced barriers to building or purchasing homes, while accommodating monetary policies are squeezing returns on financial assets and, therefore, making the market for new builds relatively more attractive to investors looking for yields. This being said, investment in residential property is still over 7% below its end-2007 high.

HOUSING MARKET

Nominal house prices have more than doubled since 2000 and house price falls during the 2007/2008 crisis were relatively minor both in size and duration when compared with a number of other euro area countries. Property price increases consistently slowed between 2011 and 2014 but picked up sharply in 2015, notwithstanding property tax reforms, particular in the Flemish Region. In 2016, the y-o-y growth rate of property prices slowed significantly, amounting to barely 0.7% in the first three quarters. In real terms, property prices declined by 0.9%.

In 2016, property activity perked back up and ended up closer to its usual levels. The total number of property transactions in Belgium grew 8.4% in 2016.

According to the "notary barometer", in 2016 nationwide average house prices rose by 2.1% (by 2.3% in Flanders and by 3.8% in Wallonia) as compared to the fourth quarter of 2015. However, the opposite is true for Brussels where house prices went down by 0.6% y-o-y. As far as apartments are concerned, a comparison with the fourth quarter of 2015 shows price rises of 5.2% in Belgium as a whole, of 6.5% in Flanders, of 5.9% in Wallonia and of 2.9% in Brussels.

MORTGAGE MARKET

The outstanding amount of residential mortgage lending reached about EUR 217 bn at the end of 2016 (against EUR 207 bn at the end of 2015).

In 2016, the number of new mortgage credit contracts concluded was about 260,000 for a total amount of more than EUR 30 bn (excluding refinancing transactions) reaching an all-time high. The number of mortgage credits granted rose by 8%, whereas their amount went up by 16%.

Compared to 2015 in the reporting year the number of credits for the purpose of purchasing went up by more than 11%. The number of construction credits also went up, by more than 32%. The number of credits granted for renovation, however, decreased (-4.4%).

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. By contrast, the 2015 increase was spread over the last three quarters of the year. The strong growth in loan products in 2016 is still closely connected to the low interest rates that further supported loan demand and lending. The number of non-performing loans (NPLs) of Belgian private persons remains low compared to that of other European countries, and is declining. For several years now it has remained at about 1.1% of the number of credits outstanding. The average amount of mortgage loans for "purchases" stood at approximately EUR 153,000 at the end of 2016, about EUR 8,000 (or almost 6%) more than at the end of 2015 (EUR 145,700).

The average amount of mortgage loans for renovation purposes increased to around EUR 44,500. In 2016, the market share of new fixed interest rate loans and loans with initial fixed rates for more than 10 years represented about 93.5% of new loans. The share taken up by new loans granted with an initial fixed rate for one year decreased to approximately 0.3% of the credits provided. The number of credits with an initial period of variable interest rate of between three and five years also showed a decrease (± 6% of the credits provided).

MARKET PROSPECTS

In the first quarter of 2017, the number of new mortgage credit contracts amounted to 62,000 for a total volume of almost EUR 7.7 bn (excluding external refinancing transactions). This represents an increase in the number of credits granted of around 17% for Q1 2017 as compared to last year's Q1 figure. The corresponding volume was even 28% higher.

As for credit purposes, the situation compared to that of 2016 shows an overall increase in the number of credit contracts for house purchases of +14.5%, for construction of +37%, for buying and renovating a house of +35%, and for house renovations of +16%.

However, the number of loan applications, not including applications for external refinancing, remained stable over the course of the first quarter, rising marginally by 0.4% compared to the same period in 2016.

	BELGIUM 2015	BELGIUM 2016	EU 28 2016
Real GDP growth (%) (1)	1.5	1.2	1.9
Unemployment Rate (LSF), annual average (%) (1)	8.5	7.8	8.5
HICP inflation (%) (1)	0.6	1.8	0.3
Outstanding Residential Loans (mn EUR) (2)	207,590	217,126	6,981,540
Outstanding Residential Loans per capita over 18 (EUR) (2)	23,187	24,091	16,838
Outstanding Residential Loans to disposable income ratio (%) (2)	88.4	89.9	n/a
Gross residential lending, annual growth (%) (2)	22.0	1.8	3.2
Typical mortgage rate, annual average (%) (2)	2.5	2.1	2.6
Owner occupation rate (%) (1)	72.0	71.4	n/a**
Nominal house price growth (%) (2)	1.8	4.3	4.6

* 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 2017, Statistical Tables.

BELGIUM FACT TABLE

Entities which can issue mortgage loans:	Banks, insurance companies and other types of lenders that have been authorised (licenced) 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 approximate market shares can be given: • Banks: ±96.5% • Insurance companies: 1.3% • 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:	The list of mortgage credit lenders and the end-of-year outstanding amount of mortgage loans was published until 2013 on an annual basis by the supervisory authority (FSMA). This publication has been stopped since then. On the basis of our membership, the following approximate market shares can be given: • Banks: ±95.6% • Insurance companies: 1.2% • Other types of lenders: 3.2%
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. This 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 and 2016 vintage, 30% of the volume of new mortgage loans still consisted of loans with an LTV ratio above 90%. At the end of June 2016, loans with an indexed LTV ratio exceeding 90% represented 16.1% of the banking portfolio.
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 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 period longer than 25 years has plummeted from 23% in 2007 production volumes to a mere 2% in 2015 and 2016. The share of loans with a maturity between 20 and 25 years remained relatively stable over the years 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 maturity periods longer than 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:	If the expenses are related to the owner-occupied house, the regions are competent to grant tax advantages. For housing other than owner-occupied housing, the federal state is competent. Federal tax deduction for other non-owner-occupied housing (such as a second house or an investment property) are long-term savings tax deduction (30% tax deduction on the federal basket "long-term savings") and the standard interest deduction (fiscal advantage at marginal rate, i.e. income-based), provided, of course, that the legal requirements are met. The maximum federal basket "long-term savings" amounts to 2,260 EUR. As for owner-occupied housing, across the regions (Flanders, Wallonia and Brussels) the schemes differ, with each region pursuing its own policy. 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 the deduction goes down to EUR 1,520 (tax relief of 40%). In Wallonia, a new system, the so-called "Chèque habitat", applies from 2016 onwards. More information is available at http://spw.wallonie.be/dgo4/site_logement/index.php/aides/aide?aide=chequehabitat In the Brussels region, a new system applies from 2017 onwards. The tax deduction on housing was removed, but the tax allowance (exemption from registration fees) on the purchase of a primary residence was increased from EUR 60,000 to EUR 175,000, provided that the purchase price of the real estate does not exceed EUR 500,000. This means that from now on, registration fees no longer need to be paid on the first tranche of EUR 175,000. As from this amount, the usual registration fees of 12.5% apply. More information is available at http://fiscalite.brussels/bonus-logement-et-abattement.

Bulgaria

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

MACROECONOMIC OVERVIEW

In overall terms, real GDP growth remained robust in 2016 at 3.4%, as a result of a sufficiently high volume of net exports and private consumption. However, investment growth was estimated at -4% due to the relatively low accumulation of EU funds in various sectors.

The current account balance performed well in 2016 due to stable external demand from the country's EU trading partners coupled with strong tourism based on the favourable geographic indicators. In view of this, the current account balance reached 4.2% of GDP in 2016. It is, however, expected that this balance will fall to 2.4% and 1.8%, in 2017 and 2018, respectively.

In addition, it is expected that inflation in the country will reach 1.3% in 2017, compared to the overall negative annual HIPC trends in 2016. Employment is expected to rise by 0.6% in 2017 which is explained by the increase in domestic demand. This gradual increase coupled with the projected stagnation in the labour force is expected to lead to an overall reduction of the unemployment rate to 7% in 2017.

In terms of the government budget, fiscal consolidation occurred faster than initially expected, thus surpassing the budgetary targets for 2016. While a deficit of 1.6% of GDP in 2015 was observed, in 2016 the government budget reached a more balanced position, which corresponded to an adjustment of 1.5 pps of GDP. The general government deficit in 2017 is predicted to reach 0.4% of GDP.

On a related note, general government debt reached approximately 29.5% of GDP in 2016 as a result of an increase in cash buffers to be used for covering debt repayments in the following year, i.e. 2017. This is expected to lead to a decline in the general government debt in 2017, reaching 26% of GDP in 2018.

HOUSING AND MORTGAGE MARKETS

All in all, 2016 proved to be a particularly positive year for the Bulgarian real estate market due to the fact that nearly zero interest rates on bank deposits led to an increased number of investments in real estate, including the purchase of residential property in pre-construction phase. In particular, the average mortgage interest rate for BGN-denominated loans fell to as low as 4.56% by the end of 2016, compared to 6.34% from the same period of 2014, according to data published by the Bulgarian National Bank.

Bulgaria's mortgage market has been declining in the past years, estimated at 9.7% of GDP in 2010 compared to 7.8% of GDP in 2016. However, an expansion of the mortgage market could be around the corner, as it is estimated that gross mortgage lending amounted to around EUR 1,157 mn gross mortgage loans in 2016, i.e. an increase of nearly 19% compared to 2015.

Regarding new building permits, it is estimated that there has been an increase of 5.2% % y/y to a total of 18,157 in 2016 based on data provided by the National Statistical Institute (NSI).

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.

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 mn and originates from 11 issuing banks (now 10 banks since the merger of MKB Unionbank and First Investment Bank). As of 31 December 2016, outstanding mortgage bonds amounted to EUR 5.0 mn.

There are no specific legal requirements in Bulgaria regarding the LTV ratiosThe LTV specificities are usually defined in the lending policies of individual banks and depend on banks' own risk calculations and internal rules.

	BULGARIA 2015	BULGARIA 2016	EU 28 2016
Real GDP growth (%) (1)	3.6	3.4	1.9
Unemployment Rate (LSF), annual average (%) (1)	9.2	7.6	8.5
HICP inflation (%) (1)	-1.1	-1.3	0.3
Outstanding Residential Loans (mn EUR) (2)	3,522	3,699	6,981,540
Outstanding Residential Loans per capita over 18 (EUR) (2)	585	620	16,838
Outstanding Residential Loans to disposable income ratio (%) (2)	14.5	14.9	n/a
Gross residential lending, annual growth (%) (2)	39.7	18.9	3.2
Typical mortgage rate, annual average (%) (2)	7.0	6.2	2.6
Owner occupation rate (%) (1)	84.3	82.3	n/a**
Nominal house price growth (%) (2)	2.8	3.2	4.6

* 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 2017, 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 requiring only banks to provide mortgages.
The market share of the mortgage issuances:	It is estimated that seven major banks at national level have disbursed around 85% of all mortgage loans.
Proportion of outstanding mortgage loans of the mortgage issuances:	Not available
Typical LTV ratio on residential mortgage loans:	The typical LTV ratio is 70% for properties under EUR 100,000, 75% for properties over EUR 100,000 and usually around 60 to 65% for brand new properties.
Any distinction made between residential and non-residential loans:	Not available
Most common mortgage product(s):	The most widely used mortgage products in Bulgaria are housing loans with variable rates, which are generally defined in the banks own lending policies.
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 primary funding source by banks. However, mortgage bond issuances are competing, at an ever-increasing rate, 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 in accordance with the price of the property. Defining factors include whether the property has land attached, whether it is bought via an agent as opposed to buying directly from the vendor, and whether a lawyer and surveyor, or translator is employed for participating in the process. The usual associated costs are as follows: 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% of the purchase price), VAT (possible to have this exempted for residential purposed, otherwise it is 20% with the possibility to have a refund for registered entities).
The level (if any) of government subsidies for house purchases:	Based on statistical figures from 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 the first year of economic recovery in 2015 after a longer period of negative macroeconomic trends and house price falls, domestic economic activity continued to recover in 2016 and accelerate until the end of the year, although at a somewhat slower pace. In 2016, the growth of real GDP reached 3.0% accelerating from 2.2% in 2015. Despite noticeable improvement over the last few years, most macroeconomic indicators and trends have still not reached their pre-crisis levels, which is also partially a consequence of the political instability in the country.

Despite the stagnation at the end of the year, overall deleveraging of the general government and other domestic sectors with respect to foreign creditors accelerated during the whole of 2016 compared to the previous year, so that net external debt, as well as gross external debt, decreased by almost EUR 4.0 bn. At the end of December 2016, net external debt stood at 41.3% of GDP, and gross external debt stood at 91.4% of GDP, which is a decrease of approximately 11 percentage points compared to the end of 2015. General government debt, which at the end of 2016 stood at 83.7% of GDP, increased only slightly on a monthly basis (partly influenced by exchange rate developments), while relative to the end of 2015 (86.3%), it decreased. The general improvement in fiscal, and also macroeconomic indicators, was also reflected in the continuation of favourable conditions of government refinancing by issuing bonds (interest rate on the five year HRK bond issued in July 2016 was at 2.75% level). *(Croatian National Bank)*

In the public finance area, the fiscal deficit was considerably reduced. Although the available Ministry of Finance data for the last quarter suggest a slight deepening of the government budget deficit relative to the same period of 2015, looking at 2016 data in its entirety, a significant fiscal adjustment was achieved on the back of strong growth of revenues and a significantly slower increase in expenditures. The level of the general government budget deficit for 2016 was at 0.8% of GDP according to the *Croatian National Bank*, which is much lower than in 2015, as well as relative to the deficit planned in the budget revision. The level of deficit was at 3.4% of GDP for 2015.

The current account balance (as % of GDP), after years of negative levels or levels near 0%, reached 4.8% in 2015 and 2.6% of GDP in 2016. At the end of 2015 favourable developments in the labour market continued. The registered unemployment rate decreased from 17.6% at the end of 2015 to 13.9% in 2016, while the unemployment rate according to the ILO definition (persons above 15 years of age) decreased from 16.2% in 2015 to 13.1% in 2016. The inflation rate (HICP) in 2016 was -0.6% (-0.3% in 2015) according to the European Commission. The annual rate of consumer price inflation was negative in 2016 as well as in 2015. The average rate of change of the consumer price index (in %) declined from -0.5% in 2015 to -1.1% in 2016. *(Croatian National Bank)*

HOUSING AND MORTGAGE MARKETS

HOUSING MARKET

After years of negative trends, Croatia's property market continued to recover in 2016 in light of the number of new dwellings sold. When considering house prices, however, a slight decrease emerged once again.

The construction sector also continued to recover. More specifically, 9,398 building permits (dwellings) were issued in 2016, which represents a considerable increase in comparison to 2015 (35.2% more) when 6,950 building permits were issued, while the useful floor area of dwellings with building permits increased to 859,996 square meters (from 650,126 square meters in 2015) (Croatian Bureau of Statistics). By type of construction, approximately 70% of building permits were issued for new construction and 30% for 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*).

In 2016 the greatest number of building permits (residential buildings) was issued in the County of Zagreb (2,016), as was the case in the previous years, with the exception of 2015, when this number was the highest in the County Primorje-Gorski kotar. The County of Zadar took the second place in 2016 with 1,480 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 and to 7,805 units in 2014 (3,841 residential buildings in 2014 and 3,678 in 2015) according to the latest available data.

Total number of new dwellings sold in the Republic of Croatia significantly increased to 2,791 units in 2016 in comparison to 1,672 units in 2015. Of these, about 50% were in the capital city Zagreb, while the remaining 50% were in all other counties. In 2016, the average price of new dwellings sold in the Republic of Croatia was HRK 10,034 (or EUR 1,327) per square meter, which represents a slight decrease in comparison to 2015 (HRK 10,688 or EUR 1,421). The prices of dwellings constructed by trade companies and other legal entities as well as those constructed under the government supported "Publicly Subsidized Residential Construction Program" are included in these average prices (per square meter of sold new dwellings). The average price of sold, new dwellings constructed by trade companies and other legal entities in 2016 was HRK 11,027 per square meter (1,984 units sold) and (in 2015 it was HRK 11,378 per square meter and 1,381 units sold) and of those constructed under the "Publicly Subsidised Residential Construction Program" significantly lower; in 2016 their average price was HRK 7,806 (807 units sold) against HRK 7,748 per square meter and 291 units sold in 2015, therefore the influence of such a sale structure and price levels on the average price of sold new dwellings per square meter in total must be taken into consideration. In Croatia's capital, Zagreb, the total number of sold new dwellings significantly increased, to 1,481 units in 2016 (from 839 units in 2015). However, the average price of new dwellings sold dropped to HRK 10,445 per square meter (or EUR 1,382) in 2016 from HRK 11,797 (EUR 1,568) per square meter in 2015. In all other settlements, total number of sold new dwellings reached 1,310 units in 2016 from 833 units in 2015 and the average price of new dwellings remain almost the same as in the previous year, HRK 9,582 per square meter in 2016 (or EUR 1,268) in comparison to the HRK 9,617 (EUR 1,278) per square meter in 2015. *(Croatian Bureau of Statistics)*

MORTGAGE MARKET

Croatia's mortgage market has developed significantly over the past decade. Despite a further slow decrease in the relative importance of commercial banks in Croatia's total financial sector assets, they still have dominant role in housing finance in general. Credit institutions assets accounted for nearly 70% of the total Croatian financial sector assets represents or HRK 398.3 bn (EUR 52.7 bn) at the end of 2016. The dominance of banks is even more evident in relation to the market oriented housing finance system. Housing loans granted by banks in 2016 made up 92.5% of all housing loans granted in the Republic of Croatia. The remaining 7.5% was granted by housing saving banks. Total outstanding housing loans in 2016 amounted to HRK 55.5 bn (EUR 7.34 bn), which represents a decrease in comparison to 2015 (HRK 60.0 bn or EUR 8.1 bn). Housing loans in the Republic of Croatia in 2016 accounted for 47% of the total loans granted to the household sector, or 13% of the total credit institutions asset. (*Croatian National Bank*), although this figure is still far below the Euro area average.

Most commercial banks in the Republic of Croatia offer housing loans for periods of mostly up to 30 years, with an LTV ratio up to 80%, predominantly with variable 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 80% of total outstanding housing loans are HRK denominated and indexed to a foreign currency (at the end of 2016 nearly 77% were indexed to EUR and nearly 3% to CHF, while the remaining 20% were not indexed to any foreign currency). The average interest rate of housing loans in HRK indexed to a foreign currency (new business) in 2016 was 4.78% compared to 5.07% at the end of 2015. When talking about the quality of housing loans granted in 2016, a slight decrease in the average share of partly recoverable and fully unrecoverable housing loans was recorded, from 9.7% at the end of 2015 to 8.5%. Of these, 66.3% were housing loans indexed to CHF at the end of 2016 and 7.0% (6.0% at the end of 2015) were indexed to EUR. (*Croatian National Bank*)

Housing saving banks were introduced in the Croatian financial market in 1998, but they played a largely symbolic role in the market-oriented housing finance system in that time. In that sense, housing saving banks assets represent less than 2% of credit institutions' total assets. Their share in the total number of housing loans granted was only approximately 7.5% in 2016 (5% in 2015). In the Republic of Croatia, there are still no other financial institutions involved in the market-oriented housing financing.

MORTGAGE FUNDING

In 2016, no changes in the sources of housing financing occurred. Croatian banks and certainly housing saving banks were still primarily depositary institutions, which do not fund loans via mortgage covered bonds or mortgage backed securities. The funding structure of credit institutions in the Republic of Croatia at the end of 2015 (last available data) was as follows: deposits 90.9%, loans 7.5% and other sources 1.6%. Among these, approximately 7% of loans and deposits were funded by foreign parent banks. The reasons for such a funding structure are the continuous and permanent dominance in the financial sector of credit institutions in terms of traditional household savings and external financing activities. At the same time, there is still sufficient funding oriented mostly towards deposits, however there is also evidence of an ongoing absence of confidence in the securities market, as well as the slower development of other financial institutions. Frequent economic and banking crises through history as well as the absence of adequate regulation, which would make the introduction of advanced housing financing techniques possible, further explain the reasons for such a funding structure and the structure of the housing finance system as a whole.

	CROATIA 2015	CROATIA 2016	EU 28 2016
Real GDP growth (%) (1)	2.2	3.0	1.9
Unemployment Rate (LSF), annual average (%) (1)	16.1	13.3	8.5
HICP inflation (%) (1)	-0.3	-0.6	0.3
Outstanding Residential Loans (mn EUR) (2)	7,734	6,947	6,981,540
Outstanding Residential Loans per capita over 18 (EUR) (2)	2,234	2,017	16,838
Outstanding Residential Loans to disposable income ratio (%) (2)	20.1	18.0	n/a
Gross residential lending, annual growth (%) (2)	n/a	n/a	3.2
Typical mortgage rate, annual average (%) (2)	5.1	4.8	2.6
Owner occupation rate (%) (1)	89.7	90.3	n/a**
Nominal house price growth (%) (2)	1.6	-6.1	4.6

* 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 2017, 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 (the government supported "Publicly Subsidised Residential Construction Program" and through the governmental incentives for housing savings).

Cyprus

By Ioannis Tirkides, Bank of Cyprus, Economic Research

MACROECONOMIC OVERVIEW

After a protracted recession between 2012 and 2014, Cyprus returned to growth in 2015 with real GDP advancing by 1.7%. Growth accelerated in 2016 with real GDP advancing by 2.8% and further by 3.7% and 3.5 in the first and second quarters of 2017 respectively on a seasonally adjusted basis. Growth was broadly based.

In the labour market the unemployment rate dropped to a 13.1% yearly average in 2016 from 15% the year before. The labour force participation rate and the employment rate started to rise as from the third quarter of 2016. After four consecutive years of decline, consumer prices started to recover in 2017 rising by 1% in the first seven months of the year. Declines in the preceding four years were driven by declining costs and falling energy prices.

Residential property prices started to stabilise in the second half of 2015 following a protracted decline from their peak in 2008. Prices may have bottomed in 2016 and there were some price increases in regional sub-indices on a q-o-q basis.

During the economic adjustment period, there have been notable advancements in public finances, the banking sector and structural reform. In the public sector the general government budget has been near balance since 2014 and public debt relative to GDP appears to have peaked at 107.8% at the end of 2016 amidst sizeable primary fiscal surpluses. The health of the banking sector has continued to improve since capital controls were completely lifted in April 2015.

The growth outlook is positive for the medium term according to the IMF and the European Commission. Downside risks are mainly related to the high levels of non-performing loans and exogenous developments. Cyprus has close trade and investment links with the UK and the economy may be impacted if the UK's exit from the EU affects its economy negatively.

HOUSING MARKETS

There is a high tendency towards home ownership in Cyprus. According to Eurostat, the ratio of owner-occupied homes in Cyprus was 73% in 2015 compared with 72.9% in 2014 and 74% in 2013.

Construction activity peaked in 2008 and declined steeply thereafter bottoming in the first half of 2015. The construction sector started to recover then, after growing significantly in 2016. According to the Cyprus Statistical service, the production value of the construction sector at current prices increased by 2.4% in 2015 after six consecutive years of decline, to EUR 1.8 bn or 10% of GDP. This compares with a corresponding ratio to GDP of 28.2% in 2008 when construction activity peaked. The value added at current prices increased by 0.6% in 2015 after declining for six consecutive years to EUR 510 million of 2.9% of GDP compared to a corresponding ratio of 12% of GDP in 2008. The share of residential buildings in total new construction in 2015 was 52.1% and of non-residential buildings 25.1% while civil engineering projects accounted for 23.7%. This structure of the construction sector in 2015 approximates the structure in 2009 where in the years in-between civil engineering projects accounted for a larger share of total new construction rising to 39.4% in 2013. The number of persons employed in the sector in full time equivalent terms, increased by 4.3% in 2015 to 19,241 compared with 39,371 in 2008.

The number of completed new dwellings in 2015 was 2,390 compared with 2,718 the year before and a peak in 2008 of 18,195. The number of existing dwellings relative to population continued to increase over time and the ratio of persons per dwelling dropped from 2.6 in 1995 to 2.1 in 2010 and to 1.8 in 2015.

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 continued throughout the period until the end of 2016 for which data is available. Total residential prices dropped by 31.8% from their peak level to the end of 2016, down by 31.3% for apartments and by 31.9% for houses. Total yearly average residential prices dropped 1.4% in 2016 from the prior year, down 0.1 for apartments and 1.8% for houses. On average residential prices started to rise in the fourth quarter 2016 on a q-o-q basis. Total residential prices rose by 0.2% y-o-y in the first quarter of 2017.

Property prices exhibit strong correlation with overall economic activity and GDP growth. With the recovery that started in 2015 firming up, property prices might be expected to start rising in coming quarters. New sales as reflected in sales contracts registered at the Lands and Surveys department are still at about ⅓ their volume in 2007, although they have been rising since 2014, reaching 42.6% in 2016.

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 2016 were EUR 11.5 billion, which corresponds to 54.4% of total household loans outstanding and to 25.4% of total loans to residents. The ratio of mortgage loans to GDP at the end of 2016 was 64.3%. Total mortgage loans outstanding declined by 1.3% in 2016 from the prior year and remained 9.2% 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 2016 was 3.6% compared 4.2% the prior year and 5.5% in 2012. On a monthly average basis, mortgage lending rates dropped to 3.4% in December 2016 rising marginally to 3.6% in June 2017.

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 2016 were EUR 20.8 bn or approximately 116% of GDP. There was a decline of loans outstanding of about 3.3% compared to the prior year. Non-performing exposures of the household sector were EUR 12 bn or 67% of GDP in 2016 compared with EUR 12.7 bn or 72% of GDP in the prior year. However, because of the deleveraging that occurred, the non-performing exposure ratio dropped only marginally to 56.6% of gross loans in 2016 from 55% 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, at the end of 2016 provisions amounted to 38.9% of non-performing exposures in the household sector. At the same time, 35.9% of non-performing exposures in the household sector consisted of restructured facilities. The ratio of exposures more than 90 days past due to total gross loans was 42% in 2016.

MORTGAGE FUNDING

Bank funding in Cyprus is dependent primarily on customer deposits. There is currently one covered bond outstanding as at the end of 2016 with a total size of EUR 650 mn. No new issuances of covered bonds occurred in 2016. The securitisation legislation is expected to be finalised at the end of 2017 or early 2018, providing an additional tool for utilising banks' mortgage books to obtain funding.

Moreover, in May 2016, new funding from the ECB was raised using as collateral a pool of housing loans that satisfy the criteria of the Additional Credit Claims as set out in accordance with the Implementation of the Eurosystem Monetary Policy Framework Directives of 2015 and 2016.

	CYPRUS 2015	CYPRUS 2016	EU 28 2016
Real GDP growth (%) (1)	1.7	2.8	1.9
Unemployment Rate (LSF), annual average (%) (1)	15	13.1	8.5
HICP inflation (%) (1)	-1.5	-1.2	0.3
Outstanding Residential Loans (mn EUR) (2)	11,661	11,461	6,981,540
Outstanding Residential Loans per capita over 18 (EUR) (2)	17,205	16,870	16,838
Outstanding Residential Loans to disposable income ratio (%) (2)	101.3	96.7	n/a
Gross residential lending, annual growth (%) (2)	22.7	34.5	3.2
Typical mortgage rate, annual average (%) (2)	3.3	3.0	2.6
Owner occupation rate (%) (1)	72.9	73.0	n/a**
Nominal house price growth (%) (2)	-4.6	-1.2	4.6

* 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 2017, 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

MACROECONOMIC OVERVIEW

Domestic real GDP increased by 2.4% in 2016, driven mainly by household consumption, but also by foreign trade performance. Household consumption increased by 2.9% thanks to the dynamic growth of employment and salaries. Foreign trade increased by 1.1% whilst the export of goods and services decreased from 7.7% in 2015 to 4.3% in 2016; however, the decrease of growth in imports was higher (down from 8.2% to 3.2%). On the other hand, real GDP was negatively impacted by lower investments in capital, which decreased by 3.7%. This decrease was caused mainly by development of investments in the sector of government institutions, which dropped down by one third in comparison to a year prior.

The labour market reflected economic growth with a very high utilisation of the labour force, with employment growing by 2.2% in a y-o-y comparison of Q4 2016. The unemployment rate (adjusted by seasonal influences) further decreased to 3.4% in January 2017 and reached the lowest level seen in the EU. The low unemployment level and the mismatch in supply and demand for labour are reflected in the faster growth of real wages. The forecast unemployment rates for the next two years are 3.3% and 3.4% respectively, and at this level, there is only very limited scope for further decline.

In 2016 the general government budget was in surplus for the first time in the history of the Czech Republic standing at 0.6% of GDP. This result was determined by higher income from taxes and contributions for social insurance, which were up by 5.8%.

The average inflation rate of the Czech Republic in 2016 stood at 0.7% and despite the efforts of the Czech National Bank, it remains well below the desired threshold of 2%.

HOUSING AND MORTGAGE MARKETS

The real estate market of the Czech Republic is doing well. In 2016 house prices increased by 11% and the Czech National Bank evaluated that they can be overvalued by more than 14% to their real value. The most expensive flats are not located only in big cities (Prague, Brno), but also in smaller ones such as Hradec Kralove.

The house price increase is caused mainly by the solidity of the Czech economy and its growth. Thus, people are not afraid of losing their job, real salaries are increasing and it is more affordable to buy a property. Another driving factor is high demand for and the lack of available flats, especially newer ones. The offer of newly developed flats decreased in 2016 by 57%, which was caused by legislative obstructions and new requirements in the construction of buildings. The time for the preparation and implementation of new residential projects in the Czech Republic is disproportionately long and, therefore, in the near future there is unlikely to be a much greater supply of flats.

The mortgage market reached record-breaking levels in 2016, rising by 8.9%. The total amount of mortgages provided increased to 112,000 (up from 102,000 in 2015) and the total volume outstanding was CZK 944.1 bn. The driving factors were not only economic growth, but also historically low interest rates. Interest rates declined constantly during 2016 and reached their lowest average level of 1.77% in December 2016. The competition among banks was very high and for several months 10-year fixed period loans were offered with a 1.29% interest rate. The mortgage market was strongly influenced by the legislative changes which took force in December 2016. The new law concerns mainly the information to be provided to consumers, the possibility of early repayment, changes in responsibilities of mortgage providers, their intermediaries and representatives, and the supervision of the Czech National Bank (CNB). Another significant change was in the LTV ratio, which the CNB recommended should be a maximum of 95%; this will further decrease in 2017 to 85%.

MORTGAGE FUNDING

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

The main source of funding for banks are client deposits, which dominate the liability side of the banking sector. A higher degree of prudence also results in LTD ratios of 80%, which are much lower than other countries in the EU.

	CZECH REPUBLIC 2015	CZECH REPUBLIC 2016	EU 28 2016
Real GDP growth (%) (1)	4.5	2.4	1.9
Unemployment Rate (LSF), annual average (%) (1)	5.1	4	8.5
HICP inflation (%) (1)	0.3	0.6	0.3
Outstanding Residential Loans (mn EUR) (2)	32,085	34,940	6,981,540
Outstanding Residential Loans per capita over 18 (EUR) (2)	3,703	4,036	16,838
Outstanding Residential Loans to disposable income ratio (%) (2)	36.6	38.0	n/a
Gross residential lending, annual growth (%) (2)	29.9	22.1	3.2
Typical mortgage rate, annual average (%) (2)	2.4	2.2	2.6
Owner occupation rate (%) (1)	78.9	78.0	n/a**
Nominal house price growth (%) (2)	4.1	11.0	4.6

* 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 2017, 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, Finance Denmark

MACROECONOMIC OVERVIEW

The Danish economy is experiencing a moderate upswing. GDP grew in real terms by +1.3% in 2016, mainly driven by households' consumption expenditure, investments and a pickup in exports. Despite solid private consumption, consumer expectations continued their decline from the latter half of 2015 through all of 2016 and ended at their neutral level. However, in the early months of 2017, consumer confidence has picked up significantly to a level not seen during the whole of 2016.

Private consumption grew by 1.9%, and gross capital formation rose by 3.0% over the year, while public consumption was neutral. Exports grew by 1.7%, while imports grew by 2.4% due to improved domestic conditions. Combined net exports declined.

The deposit rate at the Danish central bank, Danmarks Nationalbank, increased from -0.75% to -0.65% at the very beginning of the year, and remained at that level throughout the year. Meanwhile the central bank lending rate started the year at +0.05% and has remained there. The average yield on 10 year government bonds was approximately 0.36% over the year with a low of 0% in September.

Unemployment remained flat at 6.2% (Eurostat Unemployment Rates). Despite this, some sectors are starting to experience some difficulties recruiting qualified personnel. Unit labour costs in the Danish private sector rose by 1.8% while the unit labour cost in the public sector rose by 1.3%. Both were outpacing a consumer price increase of 0.3% in 2016.

The Danish government recorded a budget deficit of -0.9% of GDP for the year. Gross public debt was 37.8% of GDP, which is low in a European context. Meanwhile, Denmark ran a current account surplus of 8.0% 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 compared to the rest of the world. The net position of Danish assets compared to the rest of the world was +56.1% of GDP by the end of 2016.

HOUSING AND MORTGAGE MARKETS

The owner occupation rate was 52.9% by the end of 2016. This marks a decrease of 0.2 pps over the year. Since 2007, the owner occupation rate has slightly decreased by a total of -1.5% points. The development over the year could be the result of housing affordability conditions. User costs rose in 2016 due to higher house prices. User costs for the country as a whole remain below, but close to, their long term average. However in Copenhagen user costs are now above the long term average.

Domestic nominal house prices increased by 3.8% (y-o-y) in 2016. 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 +9.5% and +5.4% (y-o-y) in 2016.

While house price growth remains higher in Copenhagen, other parts of the country are starting to catch up as price increases are spreading. Higher house prices are stimulating transaction activity, as home owners are increasingly able to sell their homes, without incurring a significant loss. Hence, transaction activity was slightly higher during 2016 than the year before, and is now above the historical average.

The underlying demographic movement away from the countryside remains an underlying demand factor favouring markets in larger cities. Construction activity has been subdued in the period since the financial crisis; however, supply of new housing started to pick up in 2016. In the country side, negative demographic developments have, for some time now, weakened demand for owner occupied homes. However, favourable price differences to bigger cities and an improving economic environment are starting to counter the subdued situation. Hence, the share of houses, which have been for sale for more than two years, is now declining. This being said, the overhang of detached and terraced houses remains quite substantial. In H1 2017, a broad political agreement on the taxation of properties in Denmark was reached. In short, the new regime will re-link property price developments and the taxation level from 2021 and onwards.

MORTGAGE MARKETS

By year end 2016, outstanding mortgage loans from mortgage banks amounted to DKK 2,600 bn, of which DKK 1,600 bn. was for owner occupied housing. On top of this housing loans for households from commercial retail banks amounted to DKK 302 bn. The total lending secured by bricks and mortar increased by +2.2% in 2016. Hence, the Danish mortgage sector, including housing loans issued by commercial banks, remained a stable source of funding to households and businesses in 2016. However, due to faster price growth, lending growth for owner occupation is much higher in the Copenhagen area compared to the rest of the country.

Outstanding mortgage loans issued by mortgage banks are typically split between fixed rate mortgages (33.3% by year end 2016), interest reset mortgages with interest reset intervals between 1 and 10 years (30.5% by year end 2016) and interest reset mortgages with interest reset under 1 year (36.2% by year end 2016) including adjustable rate mortgages with an interest rate cap (4.5% by year end 2016).

Gross lending activity by mortgage banks decreased slightly from the very high level in 2015. Still, the year 2016 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 484.7 bn. Residential mortgages counted for 79.1% of gross lending.

Fixed rate mortgages (typically fixed for 30 years) accounted for 52.6% of gross lending in 2016. That is a decrease of 12 pps compared to 2015. Adjustable rate mortgages and interest reset mortgages accounted for 47.1% and adjustable rate mortgages with an interest rate cap accounted for 0.3% of gross lending in 2016.

The increasing popularity of fixed rate mortgages in 2015 continued throughout 2016 as well. Furthermore, movements within the interest reset segment continued in 2016. Borrowers are still favouring fixed rate mortgages and interest rate reset mortgages with semi annual and 3-5 year intervals over interest reset mortgages with yearly intervals. There are several potential reasons for this development. One reason that stands out is the industry's own measures which includes 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 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. Indeed, in 2016 the interest rate on a 30 year fixed rate mortgage remained at the very low level of 2015, 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.

The interest rates on fixed mortgage loans continued at a historically low level in 2016. The interest rates on short term loans were so low, that investors received negative yields on the underlying bonds. The short term interest rate to borrowers was on average 1.17% in 2016 and 30 year fixed rate mortgages were issued with a coupon of between 2% or 2.5% during the year.

In 2016, measures to curb lending to households with a high LTI ratio were introduced in Copenhagen and Aarhus. Borrowers receiving a loan above an LTI ratio of four will have to withstand stress testing of their assets to be approved for the loan. The measures were implemented to curb increasing house prices and over indebted borrowers in those areas.

MORTGAGE FUNDING

Mortgage loans issued by mortgage banks are solely funded through 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. December remains the largest refinancing date, however 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 2016, short term bullet bonds worth DKK 177 bn were refinanced in December, which is at the level seen in 2015. In December 2016, the shortest bullet bonds (one year maturity) were sold and resulted at a mortgage interest rate of approximately 0.00%, compared to 0.22% a year earlier.

Over the course of 2016, long term callable bonds, which fund the fixed rate mortgages, were issued with a coupon of 2% or 2.5% matching the rate on the loans.

	DENMARK 2015	DENMARK 2016	EU 28 2016
Real GDP growth (%) (1)	1.6	1.3	1.9
Unemployment Rate (LSF), annual average (%) (1)	6.2	6.2	8.5
HICP inflation (%) (1)	0.2	0	0.3
Outstanding Residential Loans (mn EUR) (2)	238,848	243,586	6,981,540
Outstanding Residential Loans per capita over 18 (EUR) (2)	53,198	53,656	16,838
Outstanding Residential Loans to disposable income ratio (%) (2)	179.6	178.1	n/a
Gross residential lending, annual growth (%) (2)	43.6	-20.1	3.2
Typical mortgage rate, annual average (%) (2)	1.09	1.17	2.6
Owner occupation rate (%) (1)	63.3	62.7	n/a**
Nominal house price growth (%) (2)	6.7	3.6	4.6

* 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 2017, 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 and Silver Karolin, Central Bank of Estonia

MACROECONOMIC OVERVIEW

Estonian economic growth started to pick up in 2016 by increasing to 1.6% on a yearly basis. Driven mostly by manufacturing, in Q1 2017 growth further picked up pace increasing to 4.4%. Trade and construction activities also contributed significantly to the economic growth over these periods.

Strong domestic demand has been backed by increased inventories and growth in private consumption. Inventories for food products were increased partly in anticipation of the rise in excise at the start of 2017. Growth in average wages slowed throughout 2016 to around 5.7%. Yet the consequence of rapidly rising wages over recent years has been that wage costs have reached 49% of GDP. The unemployment rate increased slightly, to around 6.8% in 2016. In general, a low unemployment rate together with real wage growth and high levels of consumer confidence have supported growth in private consumption of around 4%. Consumer prices increased by 1.3% in Q4 2016, ending the decline that had started three years previously. The main drivers of inflation were the increase in global commodity prices and higher excise rates.

Gross fixed capital formation declined by 2.8% in 2016. Investment fell for the whole economy primarily because of lower corporate investment activity. Previously high payroll growth has shrunk corporate profits. However, access to bank loans and other sources of finance for increased investment remains good. As the number of people in employment is close to the maximum it can reach, further growth in the economy will depend on how well companies can reallocate labour to higher productivity sectors.

Exports of goods and services from Estonia increased by 4% at current prices in 2016 and Estonian exporters managed to increase their market share in Europe. Growth was led by machinery and equipment manufacturers and those dealing in wood-related products. Imports grew at around the trend rate of 10%. Last year growth in service exports was broadly based at around 6%. The current account was in surplus by 2.7% of GDP in 2016, indicating that savings was still being preferred to investing.

The general government budget was in deficit for 2016, although the tax burden increased by 1 percentage point (pps) to 35% of GDP. Government investment was down by 9% over the whole year of 2016.

HOUSING AND MORTGAGE MARKETS

HOUSING MARKET

Transaction activity and prices rose at a faster rate in the Estonian housing market in Q4 2016. In the largest sector of residential real estate, the market for apartments, prices increased by 11% in Q4. The construction market has been very active and a lot of new apartments have entered the market, especially in Tallinn. The number of permits issued increased by 6% with respect to 2015. The increase in the transaction share of new apartments is partly the reason for high average price growth. When assumed that no structural change would have taken place, the annual rate of real estate price growth would have been 5-6%. The number of building permits indicates that the level of construction activity will remain high in the near future. The average apartment price as a ratio to the average gross wage was the same at the end of 2016 as at the start of the year.

Alongside the property ownership market, the apartment rental market also saw a lot of activity in 2016. The rental market is concentrated mostly in Tallinn, where the population, which has increased due to mostly internal migration, keeps demand strong. The rental asking prices increased by 6% in the second half of 2016.

MORTGAGE MARKETS

The increased incomes of households encouraged them to increase their debt liabilities too. Housing loan growth accelerated to 5% in the second half of 2016. However, there was no major change in the ratio of the turnover of housing loans to the total volume of residential real estate transactions, which has remained steady at 63%. This indicates that the lending policy of the banks for housing loans did not change particularly during the year.

The exposure of banks to the risks related to the commercial real estate market increased gradually in 2016. Loans were mainly granted to the real estate and construction sectors, for the development of commercial real estate.

MORTGAGE FUNDING

The lending policy of banks for housing loans did not change particularly during 2016. The average mortgage contract interest rate has remained stable at 2.3% as in 2015. 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 LTD ratio of residents remained unchanged in 2016, staying close to 1:1.

	ESTONIA 2015	ESTONIA 2016	EU 28 2016
Real GDP growth (%) (1)	1.4	1.6	1.9
Unemployment Rate (LSF), annual average (%) (1)	6.2	6.8	8.5
HICP inflation (%) (1)	0.1	0.8	0.3
Outstanding Residential Loans (mn EUR) (2)	6,323	6,661	6,981,540
Outstanding Residential Loans per capita over 18 (EUR) (2)	5,909	6,231	16,838
Outstanding Residential Loans to disposable income ratio (%) (2)	55.8	55.6	n/a
Gross residential lending, annual growth (%) (2)	15.0	10.2	3.2
Typical mortgage rate, annual average (%) (2)	0.0	0.0	2.6
Owner occupation rate (%) (1)	81.5	81.5	n/a**
Nominal house price growth (%) (2)	6.9	0.0	4.6

* 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 2017, 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 Elina Salminen, Finance Finland

MACROECONOMIC OVERVIEW

The Finnish economy returned to growth path in 2016. Growth strengthened particularly on the back of private consumption and investment recovery. The private investment's growth was driven particularly by a recovery in housing construction. Also, the prolonged weak condition of Finnish manufacturing is taking a turn for the better. Industrial output in 2016 recorded y-o-y growth for the first time in four years.

The labour market situation improved during 2016 and the unemployment rate has dropped to 8.8%. The government has set a goal to reach 72% employment level by 2019 (currently 69%). The target seems unlikely to be reached on time. Inflation accelerated towards the end of the year and was 1.1% in December in annual terms. Short-term wage bill growth will be muted because of the so called Competitiveness Pact agreement. The Pact was agreed between the government and labor unions and the idea is to make Finland more competitive against other countries by limiting labor costs by various means.

General government debt will continue to grow towards 70% of GDP. Although halting the rise of the debt ratio over the medium term seems feasible, the long-term sustainability problem in the public finances remains a challenge.

HOUSING AND MORTGAGE MARKETS

HOUSING MARKET

Around 72% of Finnish households live in owner-occupied housing and approximately one third of Finnish households have a housing loan. The average size of a loan is EUR 97,215 (2016), for those families who have a housing loan. Typical maturity for a new housing loan is 20 years.

There is a strong upswing in construction market in Finland. New housing starts peaked to 37,250 units in 2016, which represents a 15.5% increase y-o-y. Housing completions saw an increase of 5.1% in the same period. Whereas, the number of buildings permits issued grew even strongly totalling 39,031 units, which represents a 23.5% increase from 2015.

During 2016, the prices of existing apartments increased by 1.0% across the country. The increase of prices between different regions diverged due to continued urbanisation in Finland. The prices of apartments increased by 2.0% in the Helsinki metropolitan area but decreased slightly elsewhere in Finland. The average price per square metre of an existing dwelling was EUR 3,662 in Greater Helsinki and EUR 1,677 elsewhere in the country.

MORTGAGE MARKET

New housing loans were taken out for EUR 17.8 bn in 2016, which is 7.7% more than the previous year. For the sake of comparison, new housing loans peaked in 2007, when they totalled EUR 21.2 bn.

At the end of 2016, the total housing loan portfolio stood at EUR 94 bn (43.9% of GDP), after growing by 2.3% during the same year. In 2016 growth rate slightly cooled off with respect to the previous year. Decline in the growth of housing loan stock reflects a low interest rate environment.

Repayments on housing loans were made for a total of EUR 15.6 bn in 2016. Housing loans have been amortised at a faster rate than in years, because low interest rates have enabled a larger proportion of principal in the instalments of constant payment loans – which make up about 40% of Finnish households' housing loans, according to the Bank of Finland.

Housing loans in Finland are most often linked to Euribor rates. Due to the low level of Euribor indexes, interest rates on housing loans in Finland are lower than in the euro area on average and were 1.1% at the end of the year.

The Finnish Financial Supervisory Authority (FIN-FSA) implemented a national loan cap regulation in Finland at the start of July 2016. The LTV cap on mortgage loans limits a housing loan to a maximum of 90% (95% for first-time home buyers) of the current value of the collateral posted at the time of loan approval.

FIN-FSA also decided that credit institutions which use their own internal ratings-based (IRB) approaches would be set a minimum level for the average risk weight on their mortgage portfolios. The risk weight floor was initially set at 10%, but FIN-FSA raised the requirement to 15% in its March 2017 decision. The floor is to come into effect on 1 January 2018.

NPLs have remained on a low level and they constitute 1.5% of total loans stocks.

MORTGAGE FUNDING

At the end of 2016, an average of 67% of banking groups' funding consisted of non-MFI (private custumers, SMEs, the government etc) deposits. However, the numbers vary greatly between credit institutions: some fund their operations almost entirely with deposits while some do not take deposits at all. At the end of December 2016, credit institutions' non-MFI deposit stock amounted to EUR 154 bn. The share of long-term bonds as a funding source continued to increase in 2016. At the end of 2016, the stock of total debt securities issued by credit institutions stood at EUR 92 bn of which EUR 81 bn were long-term. Banks have been preparing for the upcoming NSFR regulation for several years now, and the average maturity of their funding has lengthened. The stock of bonds with a short maturity period of less than a year has shrunken by EUR 20 billion since year-end 2008. The proportion of covered bonds has concurrently grown: at the end of the year, their stock was EUR 32 bn. Covered bonds have increased their popularity both as a source of funding and as a target of investment, lately also because of their favourable treatment in the LCR framework.

In Finland, there is not an active RMBS markets.

	FINLAND 2015	FINLAND 2016	EU 28 2016
Real GDP growth (%) (1)	0.3	1.4	1.9
Unemployment Rate (LSF), annual average (%) (1)	9.4	8.8	8.5
HICP inflation (%) (1)	-0.2	0.4	0.3
Outstanding Residential Loans (mn EUR) (2)	91,955	94,056	6,981,540
Outstanding Residential Loans per capita over 18 (EUR) (2)	20,917	21,307	16,838
Outstanding Residential Loans to disposable income ratio (%) (2)	73.9	74.6	n/a
Gross residential lending, annual growth (%) (2)	89.9	-11.4	3.2
Typical mortgage rate, annual average (%) (2)	1.4	1.2	2.6
Owner occupation rate (%) (1)	73.2	72.7	n/a**
Nominal house price growth (%) (2)	-0.8	0.9	4.6

* 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 2017, 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:	Not available
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

In 2016, the French GDP slightly rose by 1.1%, as in 2015, after 0.2% in 2014. The country's growth stays basically low and keep relying on temporary supporting factors historic low interest rates, a 15% to 20% depreciated euro and a major slump of oil prices. Though these three indicators are all showing signs of reversion. The household consumption was again the main contributor to the activity, thanks to the acceleration in purchasing power, due to an almost zero inflation.

Secondly, business investments, a key driver of the economic recovery, grew y-o-y thanks to government incentives, such as the "Tax credit for competitiveness and employment", reductions in charges of the governmental "Accountability Pact" or the exceptional 40% extra depreciation, and improved funding conditions (low credit rates). Household's investment instead arrested its decline.

In contrast, trade balance contributed to a tougher economic climate, because of increased imports. The anemic French growth was unable to make any significant dent in the unemployment rate (10.1% in 2016 from 10.4% in 2015 for Metropolitan France). Even then, the small decrease in unemployment in 2016 was largely due to the government's "Emergency plan for employment" (consisting of recruitment subsidies, plus 500,000 unemployed training).

The public deficit remained above the 3% threshold of the European Stability and Growth Pact (3.3% of GDP). Public debt climbed to 97.5% of GDP.

HOUSING AND MORTGAGE MARKETS

HOUSING MARKET

The French housing market has been driven for many years by a strong demand for new housing. The country's demographic and social changes, such as the increase of the population (especially urban population) and of its life expectancy but also the fragmentation of the family unit, are at the roots of this strong demand. Also a continuous decline of interest rates, incentives to first-time home buyers (zero interest rate loans) and tax cuts for buy-to-let investors ("Pinel" scheme) helped the strong recovery of the housing market in 2016 :

- The number of existing dwelling transactions rose to 848,000 in 2016 (+6.4% y-o-y). In Q4 2016, the existing dwelling market, prices rose for the third consecutive quarter, marking +1.8% y-o-y. The price increase was stronger for the Ile-de-France region (+3.5% y-o-y), led by Paris (+4.4% y-o-y).
- The new dwellings market experienced a net resurgence of activity: building permits for 448,000 new homes, over a rolling 12-month period, had been granted by the end of 2016. That is a 12.8% increase compared to the same period of 2015 (397,600 permits). Likewise, housing starts rose in 2016: over a rolling 12-month period, they stood at around 372,300 at the end of 2016, compared to the 334,900 housing starts recorded in 2015.

MORTGAGE MARKET

The home loans market has been very active since the end of 2014. The overall volume of accepted loans is estimated at about EUR 154 bn in 2016, compared to EUR 152 bn the year before (excluding repurchase and redemptions).

Due to the drop of interest rates, the French real estate market shaw an outstanding recovery in 2016, thus feeding the housing credit market throughout the year.

MORTGAGE FUNDING

DEPOSITS

At the end of 2016, the total amount of deposits in French banks (all actors) reached EUR 833,056 mn, compared with EUR 752,303 mn in December 2015, that is a 10.7% y-o-y growth (vs a 14.8% growth between 2014 and 2015).

COVERED BONDS

The issuance volume of euro benchmark covered bonds reached EUR 124.5 bn in 2016, showing a contraction of 13% compared to the previous year. 2016 saw an active first-half with EUR 92.3 bn issued, a level comparable to the record volume of EUR 97.5 bn set in the first half of 2011.

The trend subsequently slowed down in the summer, due primarily to the participation of the issuers in the TLTRO programs and to the uncertainties related to the Brexit vote. Under these circumstances, the issuance volume amounted to EUR 31 bn in the second half of the year.

Covered bond market was dominated by the mortagge-collateral category in 2016. In fact, 87% of bonds were backed by mortgages and only 13% by public sector loans and mixed guarantees.

	FRANCE 2015	FRANCE 2016	EU 28 2016
Real GDP growth (%) (1)	1.1	1.2	1.9
Unemployment Rate (LSF), annual average (%) (1)	10.4	10.1	8.5
HICP inflation (%) (1)	0.1	0.3	0.3
Outstanding Residential Loans (mn EUR) (2)	958,368	997,807	6,981,540
Outstanding Residential Loans per capita over 18 (EUR) (2)	18,538	19,214	16,838
Outstanding Residential Loans to disposable income ratio (%) (2)	68.5	69.9	n/a
Gross residential lending, annual growth (%) (2)	14.9	10.1	3.2
Typical mortgage rate, annual average (%) (2)	2.1	1.6	2.6
Owner occupation rate (%) (1)	65.0	64.1	n/a**
Nominal house price growth (%) (2)	-0.5	1.6	4.6

* 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 2017, Statistical Tables.

FRANCE FACT TABLE

Entities which can issue mortgage loans:	By the end of 2016, a total of 372 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, there are no 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:	December 2016, the average term of real estate loans was 214 months, which is 17 years and 10 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 German economy is already in its fifth year of moderate upturn. In 2016 GDP grew in real terms by +1.9% y-o-y (compared to +1.7% in the previous year), as a result of domestic demand. Private consumption remained at a high level due to a favourable consumer climate. The labour market remained stable. The unemployment rate continued to decline somewhat and reached 4.1% in 2016 (2015: 4.6%). Growing wages, assumed low risk of unemployment, favourable financing conditions and the positive sentiment among private households are all factors which boost the attractiveness of investing in the housing market.

HOUSING AND MORTGAGE MARKETS

In 2016, residential investment and construction activity experienced a further growth. Residential investment increased by +4.0%. The number of building permits rose by +19.8% on the previous year. The number of transactions has been relatively stable for several years. In 2016, the number of transactions rose slightly by +1.7% to around 587,000.

Prices for residential properties continued to rise in 2016. As an average for 2016, prices for owner-occupied housing rose by +6.0% (2015: +4.5%). Developments in the individual property segments were similar: Prices for single family houses (+5.8%) and condominiums (+6.5%) grew almost at the same pace. Prices for multi-family houses rose too, by +7.1% in 2016 (2015: +7.2%). 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 the big cities is increasingly spreading 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 for several years. In 2016, gross residential lending remained at a high level and amounted to EUR 209.4 bn. The volume of residential loans outstanding totalled EUR 1,327 bn, which corresponded to an increase of +3.7% on 2015.

Over an extended period of time, the completion of new dwellings has fallen to a level lower than necessary to meet the demand for housing. Even today housing supply 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 fallen significantly. In 2016, mortgage interest rates in Germany were again lower than in the previous year. The average mortgage rate went down to 1.76% from 1.95% in 2015. The combination of rising rents, low 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.

MORTGAGE 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 EU market. The subsector 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 totalling EUR 45.4 bn were brought to the market (in 2015 the figure was EUR 58.1 bn). Mortgage Pfandbriefe sales accounted for EUR 35.1 bn (40.4 bn in 2015), and Public Pfandbriefe worth EUR 10.4 bn were sold (15.5 in 2015).

As repayments exceeded new sales, the outstanding volume of Pfandbriefe decreased to EUR 373.8 bn in 2016 (from 384,4 bn in 2015). While the volume outstanding of Mortgage Pfandbriefe increased from EUR 197.7 bn in 2015 to EUR 207.3 bn in 2016, Public Pfandbriefe experienced a further decline from EUR 180.5 bn to EUR 161.9 bn. In 2016, Ship and Aircraft Pfandbriefe accounted for EUR 4.6 bn (EUR 6.2 bn in 2015).

	GERMANY 2015	GERMANY 2016	EU 28 2016
Real GDP growth (%) (1)	1.7	1.9	1.9
Unemployment Rate (LSF), annual average (%) (1)	4.6	4.1	8.5
HICP inflation (%) (1)	0.1	0.4	0.3
Outstanding Residential Loans (mn EUR) (2)	1,279,456	1,326,901	6,981,540
Outstanding Residential Loans per capita over 18 (EUR) (2)	18,792	19,272	16,838
Outstanding Residential Loans to disposable income ratio (%) (2)	66.5	66.9	n/a
Gross residential lending, annual growth (%) (2)	17.8	0.4	3.2
Typical mortgage rate, annual average (%) (2)	2.0	1.8	2.6
Owner occupation rate (%) (1)	52.5	51.9	n/a**
Nominal house price growth (%) (2)	4.5	6.0	4.6

* 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 2017, 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

For the whole of 2016, the economy continued to stagnate marking a 0% growth, mainly due to increased uncertainty about the conclusion of the second review of the European Stability Mechanism stability support programme for Greece (henceforth "the new programme"). GDP decreased in the Q4 2016 by -1.0% y-o-y, whereas according to provisional data, in the first quarter of 2017 the GDP increased marginally by 0.4%[2]. The contribution to the positive GDP growth was mainly the private consumption (1.7% y-o-y), gross fixed capital formation (11.2% y-o-y) and exports of goods and services (4.8% y-o-y). Overall, from the beginning of the current crisis in 2007 (average level) up until the first quarter of 2017, the cumulative decline in real GDP was 26.3%. Investment in construction had rebounded in 2016 by 0.6%, however it turned negative in Q1 2017 (-27.7% y-o-y).

Unemployment stood at 23.5% in 2016 against 24.9% in 2015 with the share of long-term unemployed (12 months and above) accounting for 72.0% in 2016 against 73.2% in 2015. Employment increased by 1.7% in 2016 marking a slowdown compared to 2.1% in 2015. Nevertheless, unemployment remained high at 23.6%, the highest in EU-28. At the same time, the long-term unemployment rate dropped to 16.9% in 2016 (18.2% in 2015), with the majority of unemployed individuals being women. In addition, at 37.7%, young Greeks (20-29 years old) are the hardest hit in terms of unemployment amongst the EU28, although this figure also fell relative to 2015 (40.6%). Inflation (HICP) registered 0.0% on average in 2016, against -1.1% in 2015 and -1.4% in 2014, mainly due to various increases in indirect taxation. Core inflation (HICP excluding energy and unprocessed food), after a long stagnation, increased only marginally to 0.1% in 2015 and 0.7% in 2016.

The 2016 primary fiscal outcome (programme definition) recorded a surplus of 4.2% of GDP, outperforming significantly the target of 0.5% of GDP. The improvement reflects strong revenue performance as well as spending containment, partly on the back of temporary factors that are expected to unwind in 2017. All fiscal reforms included in the new programme have been legislated since August 2015 and include inter alia: the full legal independence of ELSTAT; pension and income tax reform; indirect taxation; privatizations, an automatic contingent fiscal correction mechanism, the enhancement of electronic payments as well as the release of the Medium Term Fiscal Strategy (MTFS) 2018-2021.

The gradual restoration of confidence in recent months suggests that economic activity will improve for 2017. Downside risks, however, include a possible deterioration in the refugee crisis as well as the impact of increased taxation on economic activity and the delay of reform implementation.

HOUSING AND MORTGAGE MARKETS

Since 2008 the market values and rents of residential and commercial properties have steadily deteriorated and demand has weakened. Pressures on market values and rents for residential and commercial properties continued through 2016, albeit weaker than in the past few years. The stabilisation and recovery of the domestic real estate market has been held back by various factors such as the adversity of the economic environment, the introduction of capital controls and the ensuing lack of liquidity, the high unemployment rate, gloomy business and household expectations, the decline in disposable income and the unstable tax regime. The only sectors stood out and attracted investor interest were those of tourist and prime income properties (office and retail). With regard to tourist properties in particular, interest headed towards a number of new investment projects in hotel units located in the greater Athens area, as well as in tourist destinations throughout Greece.

The Greek housing market continues to be characterised by excess supply, a very limited number of transactions and declining prices, albeit at a more moderate pace. More specifically, according to the ELSTAT data, the number of sales in real estate fell continuously from 117,948 in 2010 to 54,631 in 2015 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 -5. 3% in 2016 worse than in 2015 (-0.6%), but still represents a significantly smaller contraction compared to the dramatic rates of decline since 2007. However, in the first quarter of 2017 an increasing rate of 11.5% was recorded. By contrast, investment in construction increased marginally on average by 0.6% relative to 2015, recording a positive rate of change for the first time since 2007, whereas 2017 started with a significant 23.7% y-o-y contraction. Residential investment fell continuously by -12.8% in 2016 and -11.1% y-o-y in Q1 2017, 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 0.6% of GDP in Q1 2017. Business expectations in construction reached their lowest point in 2015 (-29.9%) and still remaining into negative territory in 2016 (-1.1%) and in the first five months of 2017 (-23.7%) after a rebound from 2012 up to 2014. In contrast, business expectations for dwellings rebound in 2016 and in the first five months of 2017 by 44.4% and 37.2% respectively, after reached their lowest point in 2015 (-32.2%).

In the housing market, prices continued to fall in 2016 and in the first quarter of 2017, albeit at a weaker pace. It is estimated that nominal apartment prices were on average 1.8% lower in the first quarter of 2017 relative to the respective quarter of 2016. For 2016 as a whole, apartment prices decreased at an average annual rate of 2.4%, compared with a decline of 5.0% in 2015. Cumulatively, nominal apartment prices have dropped by 41.9% from 2008 (average level) to the first quarter of 2017, while a breakdown by age shows that the decline was more significant for older apartments (42.6%). A geographical breakdown reveals that prices dropped more in the two major urban centres (Athens: -44.1% and Thessaloniki: -46.3%) compared with other cities (-39.8%) and other areas (-37.7%).

The volume of credit to the private sector has contracted at relatively stable rates in the last six 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 banks to households declined at an annual rate of -2.8% in 2016, roughly unchanged relative to previous years. Housing

[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] ELSTAT data, reference year 2010, seasonally adjusted.

loans continued to decline by 3.5% in 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 and a marginal increase of 0.5% was recorded in April 2017 for the first time since August 2011. The rate of contraction of bank credit to households stabilised in 2016 and started decelerating gradually during the first months of 2017. Similarly, the bank lending rate for mortgages and non-financial corporations was stabilised in 2016 and started decelerating gradually during the first months of 2017, in contrast to the corresponding consumer credit rate which decelerated significantly in 2015 and has been stabilized in the first months of 2017.

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. NPLs (on a solo basis) decreased to 35.1% in 2016 from 35.8% 2015.

MORTGAGE FUNDING

Since the eruption of the Greek crisis in October 2009, deposits shrank by EUR 113.3 bn in total. As far it concerns mortgages, the outstanding amount of covered bonds in 2015 was EUR 4.96 bn without any new covered bonds issuances taking place in the Greek market. A high number of repurchases and cancelations was made the same year, thus reducing significantly the amounts outstanding in 2014.

From 2016 onwards the Greek covered bond market has started to move again with two banks issuing new series of covered bonds of EUR 3.67 bn in total, mainly used in repo transactions with 3rd counterparties. With reference to securitized mortgages, the market is frozen mainly due to heightened uncertainty and the deterioration in the economic climate in Greece.

	GREECE 2015	GREECE 2016	EU 28 2016
Real GDP growth (%) (1)	-0.2	0.0	1.9
Unemployment Rate (LSF), annual average (%) (1)	24.9	23.6	8.5
HICP inflation (%) (1)	-1.1	0	0.3
Outstanding Residential Loans (mn EUR) (2)	67,593	61,397	6,981,540
Outstanding Residential Loans per capita over 18 (EUR) (2)	7,545	6,893	16,838
Outstanding Residential Loans to disposable income ratio (%) (2)	58.9	53.3	n/a
Gross residential lending, annual growth (%) (2)	n/a	5.4	3.2
Typical mortgage rate, annual average (%) (2)	2.6	2.7	2.6
Owner occupation rate (%) (1)	74.0	75.1	n/a**
Nominal house price growth (%) (2)	-5.0	-2.4	4.6

* 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 2017, 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:	Not available
Proportion of outstanding mortgage loans of the mortgage issuances:	Not available
Typical LTV ratio on residential mortgage loans:	Not available
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:	Not available
Most common way to fund mortgage lending:	Deposits.
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). Note that the application of this law is frozen up to the end of 2017.
The level (if any) of government subsidies for house purchases:	For house purchase, there are no government subsidies

Hungary

By Gyula Nagy, FHB Mortgage Bank

MACROECONOMIC OVERVIEW

In 2016 GDP increased by 2.0% compared to the previous year. According to seasonally and calendar adjusted data the performance of the economy was 1.8 pps higher than in the previous year. In terms of production, gross value added was up by 17% in agriculture, by 3.0% in services and by 0.8% in industry and fell by 18% in construction. Services contributed to the growth of GDP by 1.6 pps, agriculture by 0.6 pps and industry by 0.2 pps. Construction lowered the growth by 0.6 pps. As far as expenditure is concerned, the actual final consumption of households was up by 4.2%, and the actual final consumption of the government practically stagnated (+0.1%). As a result of these two items, actual final consumption rose by 3.6%. Gross capital formation decreased by 5.0%, within which gross fixed capital formation by 15%. Exports grew by 5.8% and imports by 5.7%. Actual final consumption increased the GDP growth rate by 2.5 pps and the balance of external trade as a whole did by 0.6 pps. Gross capital formation slowed down the growth of economic performance by 1.1 pps.

Although economic growth remained below expectations at a 1.8% GDP expansion, in a favourable turn Hungary was removed from the group of countries evaluated as risky for investment by major credit rating agencies; Fitch Ratings improved its assessment in May 2016; standard & Poor's in September, and Moody's in November.

There was a significant increase in national average earnings, with average net wages 7,7% higher in 2016 than in the previous year. the unemployment rate dropped from 6.8% to 5.1%. Consumer prices rose by 0.4%, the highest price growth was observed with alcoholic beverages and tobacco (2.3%) and services (1.5%).

Hungary posted a budget deficit of 1.7% of economic output in 2016. The public debt to GDP ratio was 74.1% at the end of the year.

HOUSING AND MORTGAGE MARKETS

MORTGAGE MARKETS

Hungary had a stock of 4,420 thousand housing units at the end of 2016. The private ownership ratio is among the highest in the EU (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.

With the intention of boosting new residential construction, from January 2016 the government reduced the VAT on newbuild dwellings (from 27 % to 5%). As a result of this regulatory change the number of building permits grew significantly in 2016. From 12,515 issued permits in 2015 the number of new permits in 2016 jumped to 31,559. Developers have announced massive new residential investments following the construction VAT cut, however most of the new projects will finish only in the second half of 2017 or at the beginning of 2018, so the number of housing completions rose only to 10,032 new dwellings in 2016. Apart from the VAT reduction, a significant increase in the family housing allowance (CSOK) was also introduced in 2016. The new allowance favours families with 3 or more children, since these families are entitled to a HUF 10 mn non-refundable lump sum allowance as well as a further HUF 10 mn mortgage loan at a preferential rate when buying new dwellings. Families with one or more children may also get an allowance when buying a used flat, but the lump sum subsidy remains between HUF 550,000 to HUF 2,750,000. These new regulations together with increasing net earnings of households gave a boost to the housing market. The result can be seen in the evolution of house prices.

House prices increased by 17,3% in 2016 compared to the previous year. In nominal terms, house prices have increased by 52% since the upturn occurred in the second quarter of 2014. House price growth in real terms was 50% in the same period. When comparing the regions, the growth in 2016 was the highest in Central Hungary (21%), the lowest growth was observed in the southern Great Plain and in North Hungary (around 10%). House prices have increased above average in the capital, where the growth was above 22%. There were also significant price growth differences among the different districts in Budapest. Relatively low price growth was observed in the outskirts of Budapest (15-16%) highest growth was registered in the 7th district of Budapest, but other central districts also experienced a price growth of between 25–29%). According to the figures of the National Statistical Office, the number of housing transactions was 131,000 in 2016. The greater-than-expected growth in prices and the increasing number of transactions was also supported by the fact that investors became more active on the housing market, especially in Budapest. Based on the data of certain mortgage brokers the share of investors among house buyers reached 40% by 2016. It remained however significantly lower outside the capital, although a slight increase in the share of investment oriented purchases did occur in the countryside too.

MORTGAGE LENDING

The growth observed in mortgage lending in 2015 continued in 2016. HUF 525 bn was distributed in mortgage lending, indicating a 26% increase compared to 2015. The average annual interest rate on newly disbursed mortgage loans was around 5.3%, however the interest rate of the most typical – variable rate mortgage loans – stood at around 4% at the end of the year. The ratio of non-performing household loans improved during 2016 compared to the previous year. According to the Financial Stability Report of the Hungarian National Bank, compared to end-2015 the ratio of loans overdue for more than 90 days decreased in the segment of mortgage loans to 10.3%. This ratio is still high, nevertheless this is an improvement compared to the previous year's figure.

The National Asset Management Agency plays a key role in the cleaning of the household mortgage loan portfolio. The National Asset Management Agency (NAMA) purchased 6,326 collateral properties in 2016, so until the end of 2016 the Hungarian State acquired altogether 27,800 properties. In total, almost 40,000 collateral properties have been offered by financially distressed borrowers for purchase since its establishment.

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 the establishment of 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. From April 2017 the new regulation of the National Bank of Hungary will enter into force with 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. It has already been announced, that the ratio will be increased to 20% from October 2018.

To comply with the new regulation, commercial banks had two choices: either they entered into refinancing agreements with the already existing mortgage banks or had to create their own new mortgage bank. By the end of 2016 the number of mortgage banks changed from three to five.

	HUNGARY 2015	HUNGARY 2016	EU 28 2016
Real GDP growth (%) (1)	3.1	2.0	1.9
Unemployment Rate (LSF), annual average (%) (1)	6.8	5.1	8.5
HICP inflation (%) (1)	0.1	0.4	0.3
Outstanding Residential Loans (mn EUR) (2)	14,943	14,024	6,981,540
Outstanding Residential Loans per capita over 18 (EUR) (2)	1,837	1,728	16,838
Outstanding Residential Loans to disposable income ratio (%) (2)	25.1	22.4	n/a
Gross residential lending, annual growth (%) (2)	51.8	25.7	3.2
Typical mortgage rate, annual average (%) (2)	6.2	5.3	2.6
Owner occupation rate (%) (1)	88.2	86.3	n/a**
Nominal house price growth (%) (2)	17.7	17.8	4.6

* 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 2017, 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 45,6%, mortgage banks 28,6%, savings banks 4,7% and savings cooperatives 21,1% of the new mortgage issuences.
Proportion of outstanding mortgage loans of the mortgage issuances:	Banks hold 59,39% , mortgage banks 27,73%, savings banks 3,15% and home saving cooperatives 9,73% of the total outstanding mortgage loan portfolio.
Typical LTV ratio on residential mortgage loans:	The average LTV ratio of the newly disbursed residential mortgage loans was around 55% in 2016.
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. "BTL mortgages" at present are included also 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 granted by commercial banks and mortgage banks (purpose is the purchase a flat or house). Home equity loans are much less popular, than before the GFC. Foreign currency loans were prohibited in 2010, and all foreign currency mortgage loans were converted to HUF in 2015.
Typical maturity of a mortgage:	Typical/average maturity for a mortgage loan was 14.5 years in 2016. The average maturity has increased compared to the previous year (13.9 years).
Most common way to fund mortgage lending:	The most common way to fund mortgage lending is funding from deposit, but since April 2017 commercial banks must adhere to a new regulation introduced by the National Bank of Hungary. According to the regulation at least 15% of mortgage loans must be funded or refinanced by mortgage bonds.
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 4 Mio HUF, and 4% on all value over 4 Mio HUF) 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 (5%).
The level (if any) of government subsidies for house purchases:	For families with three or more children a lump sum subsidy of HUF 10 mn and a further HUF 10 mn subsidised loan with a max 3% interest rate is available, when they purchase a new dwelling. In case of families buying a used flat, a smaller lump sum subsidiy is also available depending on the number of kids. The subsidy in this case will vary between HUF 550,000 and max HUF 2,750,000.

Ireland

By Anthony O'Brien, Banking & Payments Federation Ireland

MACROECONOMIC OVERVIEW

GDP grew in volume terms by 5.1% in 2016, according to the Central Statistics Office (CSO) and Eurostat. Domestic demand has contributed most of the growth since 2014. Capital formation jumped by 61.2% during 2016, driven by the relocation of intellectual property products to Ireland. Personal consumption, which accounted for half of domestic demand, rose by 3.3%.

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

Key consumer indicators were mixed in 2016. The unemployment rate continued to decline throughout 2016, ending the year at 7.1% on a seasonally adjusted basis, down from 9.1% a year earlier.

The ESRI/KBC Bank Consumer Sentiment Index fell by 7.7 points y-o-y to 96.2 in December 2016 as consumers reflected on concerns about potential external threats to the Irish economy such as Brexit as well as disappointment with improvements in living standards for the average household. The seasonally adjusted volume of retail sales grew by 6.7% in 2016 but the fastest growing sectors were electrical goods and furniture and lighting while motor trades became a drag on growth for the first time since 2013.

The EU Harmonised Index of Consumer Prices for Ireland fell by 0.2% in 2016 according to Eurostat, having remained unchanged in 2015.

HOUSING AND MORTGAGE MARKETS

The housing and mortgage markets continued to grow in 2016 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 2016. 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 Housing, Community and Local Government show that more than 14,900 housing units were completed in 2016, an increase of around 18% compared to 2015 completions. However, this is well short of the consensus medium to long-term requirement of 25,000 housing units per annum. In Dublin only 4,234 units were completed, about 60% of the estimated equilibrium level of demand of around 7,000 units. However, the figures at least showed momentum in large building projects, with the number of scheme houses exceeding the number of one-off (mainly self-build) houses for the first time since 2008.

Housing commencements also showed a significant increase with some 13,234 units started in 2016, an increase of 57% compared to 8,747 units in 2015. Around 30% of total commencement units were for one-offs in 2016 and only 5,404 units were started in Dublin. It is becoming increasingly difficult to estimate completion numbers using commencement figures as the gap between these two indicators seems to have increased substantially. Under normal circumstances, completions in a year are at most around 5% higher than commencements in the previous year. Data show that, for example, 8,747 units commenced in 2015 translated into 14,932 completions in 2016.

CSO data shows that residential property prices rose by 7.5% in 2016. For the first time since 2010, properties outside Dublin performed better than those in the capital: Dublin prices rose by only 5.1%. It is likely that macro prudential rules introduced by the Central Bank of Ireland (CBI) in 2015 (see CBI LTV and LTI Limits) 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 executed by 2.5% in 2016 to almost 55,000, according to the CSO.

CBI LTV AND LTI LIMITS

LIMIT TYPE	PROPERTY TYPE	LIMITS	ALLOWANCE
LTV Limits	Primary dwelling homes	**09/02/15-31/12/16**	15% of all new lending above limits
		FTBs: Sliding limits* from 90% to 80%	
		Non-FTBs: 80% limits	
		From 01/01/17	5% of new lending to FTBs allowed above 90%
		FTBs: 90%	20% of non-FTB new lending allowed above 80%
		Non-FTBs: 80%	10% of new lending above the BTL limit is allowed
	BTLs/Investors	70%	20% of new lending above the LTI limit is allowed
LTI Limits	Primary dwelling homes	3.5 times income	**From both limits:**
Exemptions	**From LTV limit:** Borrowers in negative equity	**From LTI limit:** Borrowers for investment properties	Switcher mortgages Restructuring of mortgages in arrears

* A limit of 90% LTV applies on the first EUR 220,000 of the residential property value and a limit of 80% LTV applies to the balance.

Source: Central Bank of Ireland

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 2016. Rent rises slowed however with national rents increasing by 6.9% year-on-year in Q4 2016 compared with 10.5% in Q4 2015. Dublin rents grew more quickly, at 8.7%. To counteract the rapid rise in rents, new legislation in 2016 introduced rent pressure zones, where rents would only be allowed to rise by up to 4% annually. By June 2017, an estimated 57% of private tenancies were in designated rent pressure zones.

Mortgage activity in 2016 is likely to have been affected by the Central Bank of Ireland's (CBI's) introduction of loan-to-value (LTV) and loan-to-income (LTI) limits for new mortgage lending in February 2015 as well as the launch of the government Help to Buy tax rebate scheme for FTB buyers of newly built homes. Late in 2016, the CBI announced plans to ease and simplify deposit requirements for FTBs. The Help to Buy scheme was initially launched in 2014 as a scheme through which FTBs could use refunded deposit interest tax to help finance new home purchases. This was bundled with an income tax rebate scheme launched in 2016, giving claimants funding up to EUR 20,000 towards the deposit for a new home.

The value of mortgage drawdowns in 2016 amounted to EUR 5.7 bn, and EUR 5.0 bn of this was accounted for by residential property purchases. The value of mortgage drawdowns increased by around 16% overall in 2016 compared to 2015. In volume terms 29,498 mortgages were drawn down in 2016, an increase of around 10% compared to 2015 drawdown numbers yielding an average mortgage value of around EUR 191,700 in 2016.

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 110.6 bn at the end of 2015 to about EUR 106.7 bn a year later, according to the CBI. Some 48.4% of the value of personal mortgages outstanding was on tracker rates linked to the ECB base rate, while a further 41.2% was on standard variable rates or fixed rates up to one year.

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 PDH in arrears of more than 90 days fell to 7.4% of all PDH mortgage accounts by the end of Q4 2016, the thirteenth consecutive decline in arrears of more than 90 days. Some 15.7% of BTL mortgage accounts were in arrears of more than 90 days, down from 17% in Q4 2015.

Mortgage lenders are active in assisting borrowers who experience repayment difficulties which is demonstrated by the fact that 19.1% of all PDH accounts and 19.3% of all BTL accounts had an active restructure by the end of 2016. The number of repossessions remained low by international standards with 2,848 repossessions in 2016, or 0.33% of mortgage accounts at year end. About 63% 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. Household and corporate deposits rose by 11.2% between 2014 and 2016, offsetting a drop in deposits from other financial intermediaries over the same period. Deposits from the Irish private sector grew by 2.3% y-o-y in December 2016.

Some EUR 33.3 bn in mortgages outstanding were securitised at the end of 2016, down from EUR 33.6 bn a year earlier, according to the CBI.

Mortgage covered bonds outstanding in Ireland remained stable in 2016 increasing by 0.86% to EUR 17 bn. Some EUR 3.5 bn in new mortgage covered bonds was issued during 2016, 32% less than 2015, which was the highest value since 2012.

	IRELAND 2015	IRELAND 2016	EU 28 2016
Real GDP growth (%) (1)	26.3	5.2	1.9
Unemployment Rate (LSF), annual average (%) (1)	9.4	7.9	8.5
HICP inflation (%) (1)	0	-0.2	0.3
Outstanding Residential Loans (mn EUR) (2)	87,898	86,195	6,981,540
Outstanding Residential Loans per capita over 18 (EUR) (2)	25,665	24,548	16,838
Outstanding Residential Loans to disposable income ratio (%) (2)	92.3	87.1	n/a
Gross residential lending, annual growth (%) (2)	25.8	16.7	3.2
Typical mortgage rate, annual average (%) (2)	3.5	3.3	2.6
Owner occupation rate (%) (1)	68.6	70.0	n/a**
Nominal house price growth (%) (2)	9.0	6.4	4.6

* 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 2017, 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 5.6% of the number and 7.5% of the value residential mortgage outstanding (principal dwelling home and buy-to-let) at the end of 2016 according to the Central Bank of Ireland. Retail credit firms, which are non-deposit taking regulated lenders, held 3.5% of the number and 4.2% of the value of loans outstanding, while unregulated loan owners held 2.1% of the volume and 3.3% of the value of loans. Non-bank lenders had a relatively large share of the BTL market, with 7.9% of the volume and 10.1% of the value of mortgages outstanding.
Typical LTV ratio on residential mortgage loans:	The mean average LTV ratio for mortgages in Ireland was 72.1% in 2016 according to Central Bank of Ireland data. FTBs had the highest LTVs at 78.8%, while the average LTV for subsequent PDH buyers was 66.4%. BTLs had the lowest LTVs at 55.8%.
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, Italian Banking Association

MACROECONOMIC OVERVIEW

The Italian economy continued to grow in 2016, albeit at a moderate pace (0.9%), mainly thanks to the ECB's strong monetary stimuli, a mildly expansionary fiscal policy and persistently low oil prices. However, GDP is still 7 pps below pre-crisis levels.

Domestic demand, net of inventories, continued to be the main driver of growth. More in detail, domestic demand provided a positive contribution to real GDP equal to 0.9%. Household consumption, though slowing, supported economic activity for the third consecutive year, contributing to 2016 GDP performance by 0.8%. General government consumption returned to growth after five years of decline and contributed to growth by 0.1%.

Spending on fixed investment strengthened and contributed to growth by 0.5%. For the first time since 2007 the improvement extended to the construction sector. The recovery in investment was fostered by expansionary monetary and financial conditions, new fiscal incentives introduced by the Government, and stronger business confidence.

Changes in inventories affected GDP performance by -0.5%. The contribution of trade to GDP growth was substantially null, owing to the slowdown in imports (the increase in exports, 2.4%, was in line with the trend of demand registered in the main Italian export markets, 2.6%).

According to the Bank of Italy, the upturn in household consumption continued in 2016, supported by the improved outlook for income and favourable credit conditions. The growth in households' disposable income strengthened, mostly thanks to the ongoing recovery in employment. Thanks in part to a significant increase in the labour supply, The unemployment rate continued to fall, albeit by a very modest 0.2 pps to 11.7%however it remains twice as high as in 2007.

Average inflation was slightly negative in 2016. Although core inflation remains weak, price dynamics have increased since the autumn and, in the first few months of 2017, reached their highest levels in four years, mostly owing to the recent rise in crude oil prices.

The current account surplus increased to 2.6% of GDP following an improvement in net investment income and a contraction in the energy deficit.
Finally, with regard to public finance, general government net borrowing fell from 2.7 to 2.4% in 2016, the combined result of a reduction in interest expenses and an increase in the primary surplus. The debt-to-GDP ratio rose from 132.1 to 132.6%.

HOUSING AND MORTGAGE MARKETS

HOUSING MARKET

In 2016, after several years of contraction that began in 2007, the Italian residential housing market confirmed and exceeded the positive trend registered in the previous year. Housing transactions amounted to circa 534,000, constituting an unequivocal sign of recovery started in 2014.

In 2016, growth was equal to 18.9% compared to the 6.5% of 2015. It is too early to say if the growth recorded in 2016 represents the start of a new cycle or not.

In particular, the analysis across macro geographical areas (Central, North, South, Islands) shows that in 2016 in the Northern regions the increase of housing transactions exceeded 20%. In particular, in the North West – which represents more than 1/3 of the market – the increase was circa 22%; in the North-East area the increase was equal to 22,4%, while in the Central and South areas the increase was respectively 16,2% and 15% compared to 2015. With reference to the size class of the cities, the analysis shows in particular that in the major cities and other cities the transactions increased respectively by 18,4% and by 19,1%.

The causes of this recovery depend on several factors. First of all, the economic situation has improved compared to the previous year as well as the Italian consumer confidence indexes. Secondly, the conditions of mortgage loans for housing purchases were favourable: the representative interest rate on new loans for house purchase continued to decrease, going from the 2.50% of 2015 to 2.02% in 2016. Furthermore, tax breaks related to house renovation – extended in 2017 – may have had a positive impact on purchasing decisions.

Finally, residential house prices, for both new and existing residential properties, remained stable, contributing to an improvement in the performance of sales. In particular, the House Price Index remained essentially stable y-o-y. More in detail, the prices of new dwellings decreased by 0.1% compared to 2015, while the prices of existing dwellings increased by 0.1%.

In 2016, the estimate of the Italian construction market shows an increase by 0.3% y-o-y.
In this context, the number of building permits issued for the construction of new homes continued to decrease from circa 53,000 to 46,700 estimated for 2014 (last data available). The renovation of residential buildings continued to register a positive performance (+1.7%) and represented 37% of the Italian construction market, in terms of investment value.

MORTGAGE MARKETS

In 2016, new loans for housing purchase continued to register a positive performance.

Outstanding residential loans, after three years of slight reduction, continued to show a progressive growth, started in 2015, reaching EUR 368 bn in 2016 (EUR 362 bn in 2015). Gross residential loans amounted, in cumulative terms, to more than EUR 83 bn at the end of the year.

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

In 2016, housing transactions with a mortgage amounted to circa 246,000 units, with a rate of increase of 27,3% with respect to 2015. The cities of the North-Eastern regions registered the highest increase y-o-y (+32,4%) while the North-Western regions had the highest number of transactions with mortgage, equal to 36.4% of the total, followed by the Centre with 22%. The average mortgage amount remained stable at around EUR 120,000 and the majority of mortgages fell within the 101,000-200,000 Euro class.

In 2016, borrowers confirmed their preference for fixed-rate mortgages. 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 2016 analysis confirmed the preference for mortgages with a maturity of over 26 years (30%).

The average interest rate on short term loans (with maturity <1 year) fell to 1.7%, from 1.97% at year-end 2015 while interest rates with a maturity of over 1 year decreased from 2.82% to 2.17%; the representative interest rate on new loans for house purchase continued to decrease, going from the 2.50% of 2015 to 2.02% in 2016.

MORTGAGE FUNDING

At the end of 2016, deposits in Euro of all Italian banks, comprised of domestic customer deposits and bonds, were equal to EUR 1,667.1 bn recording a reduction of 1.3% compared to the value of the previous year.

A focus on the various components shows that domestic customer deposits grew by 4.2%, while bank bonds decreased by 19.9% with respect to the previous year.

In 2016, Italian Covered Bonds issues amounted to circa EUR 44.1 bn (+50% circa compared to 2015), while the volume of outstanding bonds increased to EUR 147.5 bn (EUR 130.5 bn in 2015).

	ITALY 2015	ITALY 2016	EU 28 2016
Real GDP growth (%) (1)	0.8	0.9	1.9
Unemployment Rate (LSF), annual average (%) (1)	11.9	11.7	8.5
HICP inflation (%) (1)	0.1	-0.1	0.3
Outstanding Residential Loans (mn EUR) (2)	362,332	368,169	6,981,540
Outstanding Residential Loans per capita over 18 (EUR) (2)	7,147	7,268	16,838
Outstanding Residential Loans to disposable income ratio (%) (2)	32.5	32.6	n/a
Gross residential lending, annual growth (%) (2)	89.5	26.4	3.2
Typical mortgage rate, annual average (%) (2)	2.5	2.0	2.6
Owner occupation rate (%) (1)	73.1	72.9	n/a**
Nominal house price growth (%) (2)	-2.6	-0.7	4.6

* 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 2017, 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

The year 2016 was marked by sluggish growth – real GDP growth slowed down to 2.0%. Although private consumption remained the key growth engine on the expenditure side as in the previous years (3.4% increase) despite a slower rate of increase in wages and in retail trade, contracting investment limited the growth path. This was primarily related to delayed absorption of EU funding and significant contraction in construction associated with it (mainly of civil engineering works). Gross fixed capital formation declined by 11.8%.

Both weak domestic investment activity and globally declining oil prices were reflected in the current account dynamics in 2016. In 2016, the current account posted a surplus of 1.5% of GDP (0.8% deficit in 2015) with the balance of goods' developments mostly contributing to the surplus. Although transportation services rendered to foreign customers continued a downward trend in 2016, overall exports of services grew. The decline in transportation services was offset by income from telecommunications, and an upward trend in computer and information services throughout the year, as well as an increase in the supply of construction services abroad.

A gradual decline in unemployment (close to its natural level and macroeconomic balance) continued in 2016 (from 9.9% in 2015 to 9.6% in 2016 of the economically active population).

Inflation was close to zero in 2016 and average inflation (HICP) stood at 0.1%. The low level of inflation was primarily due to the ongoing negative contribution of the supply-side factors; however, it declined gradually with the rebounding of growing commodity prices. The increase in economic activity and expected wage growth will additionally impact inflation through the domestic demand channel in 2017.

In 2016, the government budget posted a slight surplus of 0.01% of GDP, as compared to a budget deficit of 1.3% of GDP in 2015. This was the result of an increase in aggregate revenue by 2.9% in comparison with 2015, including a 6.0% rise in tax revenue, with spending remaining almost unchanged. A positive performance of tax revenue was observed in 2016. While the general government debt increased from 36.5% to 40.1% of GDP, the increase was mainly facilitated by two long-term debt securities issues in preparation for the roll-over of debt in 2017.

HOUSING AND MORTGAGE MARKETS

The real estate market activity strengthened in 2016. The total number of real estate purchases registered with the State Land Register in 2016 increased by 16.3% y-o-y. Real estate market activity and price levels were driven by growing resident demand, while the activity of foreigners in Latvia's real estate market remains sluggish. Household interest in real estate is fuelled by gradually rising purchasing power, low interest rates, and the state guarantee programme for construction or purchase of first homes. The latter is simultaneously boosting the demand for new mortgage loans. In 2016, the number of housing purchases financed under this programme in total real estate purchases of residential property accounted for 13.2%.

The annual growth of real estate prices has generally accelerated. In 4Q 2016 y-o-y the Central Statistical bureau's house price index increased by 7.8% overall, with the index for existing dwellings going up by 9.2%, and that for new dwellings picking up 1.3%. Meanwhile, real estate companies report more moderate price rises. According to the data compiled by real estate companies, average prices of standard apartments (build during the Soviet period) in Riga suburbs were 6.5% higher at the end of 2016 than in the previous year. Price rises in the segment of standard apartments (they represent the largest part of existing dwellings) and more affordable (in terms of price) apartments are supported by limited supply and growing demand. The supply of new dwellings, on the other hand, is expanding and, hence, balancing the price hikes. Developers strive to adjust to the local household purchasing power and demand, and offer smaller economy-class dwellings in ever growing numbers.

Duly accounting for fluctuations and broadly moderate overall acceleration recently as well as generally stable availability indicators, the annual growth rate of house prices should not be considered as excessive so far. Over the last three years, the Central Statistical Bureau's aggregated dwellings price index has posted a 3.6% annual elevation on average. When real estate prices started to rise faster than wages, household purchasing power of housing in Latvia deteriorated slightly; in Riga, however, household purchasing power of standard apartments has remained almost unchanged, with slightly more time needed to save for the first instalment, and the ratio of monthly repayment on a housing loan to average wages of two working household members has contracted. So far, deterioration in purchasing power of housing has not been notable and extended.

Activity in housing construction is still decreasing. Both the number of new housing completions and new housing residential space completed decreased by 1.9% and 14.8% respectively, compared to 2015. However, an 11.5% increase in expected floor space indicate that construction activity should recover in 2017. Moreover, the dwellings' building area has increased in three times.

Average household housing affordability did not change significantly in 2016 as the price growth of standard apartments was in line with the rise in real income. The average time needed to accrue the down payment and the ratio of monthly loan payment to average wage are stable. Mortgage lending is slowly recovering supported by the state guarantee program and accompanied by increasing household income and slowly improving labour market conditions. The state guarantee contributes to a further moderate expansion of the activity in real estate markets and the relevant construction segment.

The overall level of rent prices remained rather stable in 2016.

The rate of outstanding mortgage loans to resident non-financial corporations and households became positive. The volume of outstanding residential and commercial mortgage loans to residents at the end of 2016 was EUR 6.7 bn, 4.1% up compared to 2015 (in 2015 EUR 6.4 bn). Meanwhile, housing loans to households decreased by 2.0% and amounted to EUR 4.4 bn or 17.6% of GDP. Decrease of housing loans to households has slowed down due to gradual increase in household income and extension the state-guarantee program

In 2016 the state guarantee program become more active with the lower registration fee and around 2,800 mortgage loans, supported by the state guarantee, were issued for a total amount of EUR 167 mn (22% of new mortgage loans, or 39% of new mortgage loan volume). In the previous year, only 1,200 mortgage loans were issued for a total amount of EUR 55 mn. Although, availability of mortgage to households is limited due to the still low savings level of households, real estate developers offer less space smaller economy-class dwellings as was mentioned above.

The share of housing loans past due over 90 days decreased from 6.2% at the end of 2015 to 4.1% at the end of 2016, and the share of restructured housing loans is also gradually decreasing. According to Latvian legislation the LTV ratio cannot exceed 90%. The programme of state-issued guarantees for construction or purchase of the first home allows for thethe upper limit of the LTV to be increased to 95%. Amid the steady environment of low interest rates, effective interest rates on EUR-denominated housing loans is gradually declining (3.21% in 2016, compared to 3.43% in 2015).

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 growing, and the share of domestic deposits was 41.4% (compared to 33.9% the year before) of banks' total liabilities by the end of 2016, while the share of liabilities to foreign parent MFIs was 9.1% (close to the8.4% of the year before). In 2016, there were no mortgage covered bonds issued by Latvian MFIs.

	LATVIA 2015	LATVIA 2016	EU 28 2016
Real GDP growth (%) (1)	2.7	2.0	1.9
Unemployment Rate (LSF), annual average (%) (1)	9.9	9.6	8.5
HICP inflation (%) (1)	0.2	0.1	0.3
Outstanding Residential Loans (mn EUR) (2)	4,503	4,412	6,981,540
Outstanding Residential Loans per capita over 18 (EUR) (2)	2,750	2,729	16,838
Outstanding Residential Loans to disposable income ratio (%) (2)	31.4	28.8	n/a
Gross residential lending, annual growth (%) (2)	9.7	33.9	3.2
Typical mortgage rate, annual average (%) (2)	3.4	3.2	2.6
Owner occupation rate (%) (1)	80.9	80.2	n/a**
Nominal house price growth (%) (2)	-3.4	8.8	4.6

* 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 2017, Statistical Tables.

LATVIA FACT TABLE

Entities which can issue mortgage loans:	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 loans issued by banks (over 99% of total mortgage loans).
Typical LTV ratio on residential mortgage loans:	According to the Latvian legislation LTV cannot exceed 90%. For the programme of state-issued guarantees for construction or purchase of first homes, the upper LTV 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 Compiling the Monthly Financial Position Report of Monetary Financial Institutions).
Most common mortgage product(s):	The most common mortgage product is that issued for the purchase of a home or an apartment.
Typical maturity of a mortgage:	The typical maturity of a mortgage is 20 years.
Most common way to fund mortgage lending:	See section on Mortgage funding.
Level of costs associated with a house purchase:	In addition to stamp duties, registration fees have to be paid. 0.1% of the mortgage loan sum has to be paid for the registration of the mortgage and 2% of the real estate value has to be paid for the real estate purchase as stamp duty. For the programme of state-issued guarantees for construction or purchase of first homes, stamp duty is 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 obtain a state loan guarantee of between 10% and 20% for families with children.

Lithuania[1]

By Jonas Grincius, AB Citadele Bankas

MACROECONOMIC OVERVIEW

Lithuania's economy grew faster, +2.3%, in 2016 compared to 2015, +1.8%. The 2016 growth followed the pattern started in the second half of 2015 when the country, after the impositions of sanctions on Russia by the EU, has realigned its exports from east to west. Export of food products and transportation remains an important GDP contributor, with the service industry contribution growing substantially. For 2017, GDP is forecasted to grow to about 2.6% level.

The unemployment continued to decrease in 2016, the annual average for 2016 was 7.9% compared to 9.1% in 2015 and 10.7% in 2014. It is believed that unemployment rate will stay similar in 2017 at 7.5% level. This said, both financial and IT sectors do experience a very clear shortage of skilled labour due to the establishment of major service centres in Vilnius and Kaunas. Gross wages continued to increase in 2016, up 7.9% y-o-y. It is forecasted that in 2017 wage growth will slow down to 5%-6% as productivity indicators lag behind. The wage growth has been fuelled by the adoption of the EUR in January 2015 and is following the same pattern observed in previous years in Estonia and Latvia, which adopted EUR in 2013 and 2014 respectively.

Annual inflation in 2016 was 0.7%, marking a significant increase from -0.7% rate of 2015. Prices increased in transport, foods and services, while telephone services, heating, gas and electricity prices deflated. For 2017, the inflation rate is forecasted to hover close to the 2% mark.

HOUSING AND MORTGAGE MARKETS

HOUSING MARKET

Homeownership rate in Lithuania continues to be above 90%, among the highest in the European Union. The high rate of homeownership is due to the relatively easy privatisation of housing stock after Lithuania regained its independence in 1990. The 2016 was a record year in terms of apartment prices growth (6.8%). All the five major cities (Vilnius, Kaunas, Klaipeda, Panevezys and Siauliai) saw prices increases, with Vilnius, the capital, leading the pack. According to real estate professional data in Vilnius 3,709 apartments were built in 2016, which constitutes 4% growth with respect to 2015. It is noteworthy to mention that this is the highest new apartment built figure from 2008. The new apartment growth signals consumer confidence, which successfully rebounded after slight dip of 2015. On the demand side 2016 was also growth year, according to the same professional's data 4,340 apartments were bought that year, which is 38% growth from the last one.

MORTGAGE MARKETS

According to the statistics of Bank of Lithuania, outstanding mortgage loan amount at the end of the 2016 was EUR 6.6 bn, while in 2015 it was EUR 6.2 bn. This constitutes a 6.7% growth, compared with the 2015/2014 growth of 2.9%. New loan issuance in 2016 grew by 16.0% from EUR 1,050 mn to EUR 1,218 mn, the growth momentum slightly decreased from 19.9% of 2015/2014. The slower growth of the new loan issuance may be attributed to slight increase on mortgage rates. The Bank of Lithuania statistics indicate that the average mortgage rates increased from 2015 1.88% to 1.95% in 2016.

Market growth, despite the Bank of Lithuania's Responsible Lending Guidelines, was still dynamic. The guidelines set a cap on LTV of 85%, and on DTI of 40% and maximum maturity of 30 years (10 years less than the previously available in the market). In addition, for DTI calculations banks must use actual interest rate, but not below 5%, to offset current low rate environment. Just for reference, before the introduction of the Guidelines, the industry standard was a flat DTI amount, decided by each bank, based on the family size. Use of DTI had limiting effect on larger size mortgages, as the previous flat rate system allowed for more income to be left for mortgage payment. The above statistics, show that in spite of all said the market adjusted to the change and continued to grow.

MORTGAGE FUNDING

In 2016 as in previous years, deposit-financed lending remained the primary source of mortgage funding. Despite a majority of banks offering nearly zero rates, deposit volume in the market continued to grow. The competitive landscape is dominated by four banks: SEB, Swedbank, DNB and Danske (mentioned in the order their mortgage market share). These four banks together represent 97% of the mortgage market. Given the abundance of deposits and theirs strong parents, the four banks are in a good position to provide relatively cheap mortgage funding in Lithuania. The current economic landscape, especially the total size of the market and the current rates, disincentives banks from using of wholesale mortgage funding instruments such as securitisation and covered bonds.

	LITHUANIA 2015	LITHUANIA 2016	EU 28 2016
Real GDP growth (%) (1)	1.8	2.3	1.9
Unemployment Rate (LSF), annual average (%) (1)	9.1	7.9	8.5
HICP inflation (%) (1)	-0.7	0.7	0.3
Outstanding Residential Loans (mn EUR) (2)	6,168	6,584	6,981,540
Outstanding Residential Loans per capita over 18 (EUR) (2)	2,573	2,778	16,838
Outstanding Residential Loans to disposable income ratio (%) (2)	26.8	27.4	n/a
Gross residential lending, annual growth (%) (2)	19.9	16.0	3.2
Typical mortgage rate, annual average (%) (2)	1.9	2.0	2.6
Owner occupation rate (%) (1)	89.9	89.4	n/a**
Nominal house price growth (%) (2)	3.7	5.4	4.6

* 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 2017, 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:	Not available

Luxembourg

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

MACROECONOMIC OVERVIEW

In 2016, GDP in Luxembourg continued to increase by a healthy 4.2%, an acceleration of 0.2 pps with respect to the previous year. The drivers of this growth over the last decade have been overall private and public consumption and net export, especially in relation to financial services. The financial sector remains the main economic engine of the country accounting for 26% of its economic activity in terms of gross value added. The fund industry achieved a record high with EUR 3.6 tn assets worth managed by Luxembourgish funds, the highest level to date and twice the amount recorded at the trough of the financial crisis. At the same time, the private sector benefitted from buoyant credit from banks which supported solid investment, notably in the real estate and non-residential construction sectors. Also public investment in relation to significant infrastructure projects rebounded sharply in recent years after a subdued period.

Demographic expansion and dynamic wages have sustained the purchasing power of households, supported by subdued inflation of 0%. This figure is expected to change due to the bottoming out of the long-lasting fall in oil prices, which dragged inflation down in previous years.

After showing strong resilience throughout the crisis, the pace of job creation accelerated in 2016 to 3.0% from 2.6% in 2015. All sectors have posted positive growth rates since 2015; however, cross-border workers benefited the most from this development as employment across non-resident workers increased by 3.5% in 2016 compared to 2.6% for nationals. Moreover, the unemployment rate, though relatively low, stagnated around 6.3%. Despite an overall positive picture of the labour market, the employment rate remains persistently low especially among the younger and older workers, both below the EU average.

Overall, public finances remain sound. The general government surplus reached 1.6% of GDP in 2016 from 1.4% in 2015. This positive development is due to low inflation combined with the incremental impact of fiscal consolidation and expenditure savings adopted in 2015 in order to counter the loss of VAT revenues 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 6.5% and 12.4% respectively, thus reaching all-time highs in both cases. 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 sixth consecutive year, reaching 1.68% p.a. in 2016 and remaining among the lowest in Europe. This development has resulted in an increase in per capita indebtedness to more than EUR 60,000 for every resident older than 18 years, the highest in the EU. Potential risks in relation to vulnerabilities of the housing market have been counterbalanced by the introduction of macro-prudential measures, such as more demanding capital requirements for mortgages with an LTV higher than 80%, by the adequate capitalisation of Luxembourgish banks and by the low proportion of NPLs. Despite these developments, in September 2016 the ESRB issued a warning to Luxemburg on medium-term vulnerabilities in the residential real estate sector of Luxembourg as a source of systemic risk to financial stability which may have consequences also for the real economy.

As the Luxembourg market for mortgage loans is dominated by variable-rate loans – though the share of fixed rate mortgages is increasing – borrowers are very sensitive to interest rate changes. For this reason, cuts in reference interest rates have a significant impact on borrowing volumes, and ultimately on house prices, which increased in Luxembourg in line with the other euro area neighbouring countries. In 2016 alone the HPI of the Grand Duchy increased by 6.0% 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 related to land availability and to the constraints of permit issuances due to administrative burdens. Notwithstanding the increased demand, the number of housing permits reached 4,846 in 2016, increasing by 6.3% with respect 2015, but still far away from the estimated 6,300 new dwellings needed to keep up with the growing demand. 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 municipalities and the state only own around 8% constructible land, while the rest is in the hands of private citizens or corporations, who do not have incentives to sell as the land generates good rent and increases in value, which is particularly attractive in the current low interest environment. 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. To this end, in 2016 a working group of representatives of the states and municipalities was set up to explore proposals for a new Housing Pact.

MORTGAGE FUNDING

Mortgages in Luxembourg are principally funded through deposits.

	LUXEMBOURG 2015	LUXEMBOURG 2015	EU 28 2016
Real GDP growth (%) (1)	4.0	4.2	1.9
Unemployment Rate (LSF), annual average (%) (1)	6.5	6.3	8.5
HICP inflation (%) (1)	0.1	0	0.3
Outstanding Residential Loans (mn EUR) (2)	26,599	28,314	6,981,540
Outstanding Residential Loans per capita over 18 (EUR) (2)	59,127	61,324	16,838
Outstanding Residential Loans to disposable income ratio (%) (2)	n/a	n/a	n/a
Gross residential lending, annual growth (%) (2)	11.5	12.4	3.2
Typical mortgage rate, annual average (%) (2)	1.9	1.7	2.6
Owner occupation rate (%) (1)	72.5	73.2	n/a**
Nominal house price growth (%) (2)	5.4	6.0	4.6

* 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 2017, 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 2016, with GDP increasing by 5% during the year, from 7.3% and 8.3% in 2015 and 2014 respectively. In light of the subdued economic activity in the euro area, the Maltese economy therefore continued to show notable resilience. Growth in 2016 was mainly driven by a 4% increase in exports of goods and services, and private consumption expenditure.

The increased economic activity was reflected in the employment rate, which rose by 1.6 pps to 65.5% in 2016. The unemployment rate as measured by Eurostat also improved, continuing to decline from 5.4% in 2015 to a historic low of 4.7%.

The Maltese Government sustained its efforts to improve public finances, with gross public debt falling to 58.3% of GDP by the end of 2016, and a budget surplus equal to 1% of GDP was recorded in 2016. Price pressures remained contained, with the inflation rate, based on the Harmonised Index of Consumer Prices, averaging 0.9%.

HOUSING AND MORTGAGE MARKETS

In Malta, the home-ownership rate stands at around 80%. The number of permits issued in 2016 for the construction of dwelling units increased to 7,508, as against 3,947 in 2015 and 2,937 in 2014. Apartments were by far the largest residential category, accounting for 84% of new building permits issued in 2016. Sales of the three residential property types (apartments, maisonettes and terraced houses) in 2016 totalled 6,502, with a relative value of EUR 955.4 mn.

Residential property prices continued to increase in 2016. According to the Property Price Index published by the National Statistics Office, which is based on actual transactions involving apartments, maisonettes and terraced houses, prices increased at an average annual rate of around 5.2%, slightly faster than the 5.0% increase recorded in 2015. The robust growth in residential prices in Malta is the result of a number of factors such as:

- The Government scheme for first-time buyers, who are exempt from stamp duty on the first EUR 150,000 of the value of the property.
- The low interest rate environment, which makes property more attractive to purchase.
- Strong growth in disposable incomes.
- The continued increase in foreign workers which now exceed 30,000, and which has created increased demand for the renting or purchase of property.
- The Individual Investor Programme which allows foreigners to acquire Maltese citizenship subject to certain conditions, including the purchase of property with a minimum value of EUR 350,000 or lease of property at an annual rent of at least EUR 16,000 for a period of no less than five years.

Mortgages to residents for house purchase totalled EUR 4.2 bn at the end of 2016, up 7.7% from EUR 3.9 bn in 2015. Some 41% of total credit extended by the domestic banks takes the form of mortgages, and the average LTV ratio stands at around 75%. Average interest rates on new residential loans reduced further to 2.84% in 2016.

MORTGAGE FUNDING

Mortgage loans are provided by the domestic banks, predominantly Bank of Valletta plc and HSBC Bank Malta plc, which account for over 80% of the domestic retail market. These banks rely mainly on resident deposits for their funding, with such deposits increasing by 6.75% to EUR 17,345 bn in 2016. With a loan-to-deposit ratio as low as around 58%, deposits provide ample liquidity to the banks, without recourse to securitisation or covered bonds being called for.

	MALTA 2015	MALTA 2016	EU 28 2016
Real GDP growth (%) (1)	7.3	5.0	1.9
Unemployment Rate (LSF), annual average (%) (1)	5.4	4.7	8.5
HICP inflation (%) (1)	1.2	0.9	0.3
Outstanding Residential Loans (mn EUR) (2)	3,905	4,204	6,981,540
Outstanding Residential Loans per capita over 18 (EUR) (2)	11,035	11,713	16,838
Outstanding Residential Loans to disposable income ratio (%) (2)	n/a	n/a	n/a
Gross residential lending, annual growth (%) (2)	n/a	n/a	3.2
Typical mortgage rate, annual average (%) (2)	3.0	2.8	2.6
Owner occupation rate (%) (1)	80.0	80.8	n/a**
Nominal house price growth (%) (2)	5.8	5.6	4.6

* 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 2017, Statistical Tables.

MALTA FACT TABLE

Entities which can issue mortgage loans:	Main issuers are the "core domestic banks", namely APS Bank Ltd; Bank of Valletta plc; Banif Bank (Malta) plc; HSBC Bank Malta plc; Lombard Bank Malta plc; Mediterranean Bank p.l.c..
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 between them account for over 80% of domestic retail banking in Malta. All banks' mortgage loans to residents for house purchase totaled EUR 4.2 bn at the end of 2016.
Typical LTV ratio on residential mortgage loans:	The LTV ratio for loans backed by residential property was around 75% as of 2016.
Any distinction made between residential and non-residential loans:	The banks in Malta make a clear distinction 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 the mortgage is repaid before the borrower reaches the age of 65.
Most common way to fund mortgage lending:	Mortgage funding in Malta remains mainly deposit-based. The core domestic banks have ample liquidity from this source, with a loan-to-deposit ratio of around 58%.
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 ranging between 8% and 12% on the value of the property when sold. The 5% Duty on Documents is 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 a preferential rate of 3.5% is applied on the first €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 €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
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 Netherlands

By Dimitry Fleming and Nico de Vries, ING

MACROECONOMIC OVERVIEW

In 2016, the economy expanded at the fastest pace since 2007. According to data from Statistics Netherlands (CBS), real GDP rose by 2.2%. The increase was primarily driven by domestic demand. Helped by a stronger labour market, private consumption increased by 1.7% compared to the previous year. Gross fixed capital formation surged 4.8%, largely on the back of residential investment (+19%), and public spending posted the strongest increase since 2010. Next to domestic factors, net exports contributed positively too, adding 0.2 percentage points to GDP growth.

In terms of sectors, commercial services were the main growth driver. Particularly retail and temporary employment agencies provided a strong growth stimulus. Manufacturing and construction output rose too, but the energy sector was negatively impacted by the government's decision to further lower the maximum allowed gas production. The decline in energy production shaved off almost 0.2 pps of GDP in 2016.

Rising output levels induced businesses to hire more people. Employment (total hours worked) expanded by 2% in 2016. The unemployment rate declined from 6.9% in 2015 to 6.0% in 2016. Wage growth picked up too, but modestly, which indicates that the economy was still running below potential. Moderate wage growth and falling energy prices helped to keep inflation low. The inflation rate (as measured by the Consumer Price Index) was 0.1 in 2016. Core inflation fell from 1.2% to 0.8%.

The government budget balance returned to a surplus; the first since 2008. From -2.1% in 2015, the fiscal balance improved to +0.4% in 2016. Increased economic activity boosted tax income, while a rebate from the EU helped to lower expenditures. Excluding interest payments, the surplus was 1.8%. Falling gas revenues prevented the primary deficit from improving further. Government debt was 62.3% of GDP at the end of 2016.

HOUSING AND MORTGAGE MARKETS

HOUSING MARKET

In 2016 the number of housing completions rose by 13% to nearly 55,000, after reaching a low point in 2014 at around 44,000 dwellings and is catching up with the housing needs of the country. The number of households has grown by 56,000 in 2016 and is expected to grow the next years by 70,000 units per year.

The number of housing transactions increased in 2016 by 21% to 215,000. The post crisis effect has worn off. The amount of housing transactions in 2016 surpassed the amount in 2007. Together with the transactions also the house prices rose by 5.1% in 2016. Among the Dutch regions, the Amsterdam area stands out with an increase in house prices of 13.5%.

MORTGAGE MARKET

The main driver in the current mortgage market is low interest rates. Therefore new long term mortgages are more affordable and refinancing with a lower interest is a popular practice. 75% of the 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 has been lowered another 1% to 102%. Starting in 2013, the maximum LTV has been lowered each year by 1%. This gradual reduction will continue until 2018 when it 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 will decrease. In 2013, the maximum tax rate was 52%. Each year since January 2013, the maximum interest deductibility rate will decrease by 0.5% until it reaches 42%.

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

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

	NETHERLANDS 2015	NETHERLANDS 2016	EU 28 2016
Real GDP growth (%) (1)	2.0	2.2	1.9
Unemployment Rate (LSF), annual average (%) (1)	6.9	6	8.5
HICP inflation (%) (1)	0.2	0.1	0.3
Outstanding Residential Loans (mn EUR) (2)	656,015	664,416	6,981,540
Outstanding Residential Loans per capita over 18 (EUR) (2)	48,696	48,989	16,838
Outstanding Residential Loans to disposable income ratio (%) (2)	200.5	198.6	n/a
Gross residential lending, annual growth (%) (2)	27.8	60.8	3.2
Typical mortgage rate, annual average (%) (2)	2.9	2.6	2.6
Owner occupation rate (%) (1)	67.0	67.8	n/a**
Nominal house price growth (%) (2)	2.9	5.0	4.6

* 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 2017, 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 percent point 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:	Not available
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 EUR 265,000 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

According to the Eurostat estimates, the increase of real GDP in Poland in 2016 was 2.7% (in comparison to 3.8% in 2015), with domestic demand still being the main driver of the GDP growth. In 2016 the industrial gross value grew y-o-y by 3.5%, though it appeared to be shedding momentum vis-à-vis 2015 (+6.5%). The gross value added in the construction sector dropped by -11.9% y-o-y in comparison to an increase of 3.8% in 2015.

The annual average unemployment rate in Poland amounted in 2016 to 6.2% (as compared to 7.5% in 2015).

INFLATION

The annual rate of harmonised index of consumer price (HICP) was still negative in 2016, mainly as a result of the decrease in the price of oil. Deflation has persisted in Poland since 2014, but in December 2016 a rebound of inflation was observed. In 2016, the year average HICP amounted to -0.2% y-o-y; in December 2016, the HICP amounted to 0.9% (y-o-y).

PUBLIC FINANCE

In 2016 Poland's budget revenues amounted to PLN 314.7 bn (increase of nearly 9% y-o-y in nominal terms), and expenditures amounted to PLN 360.8 bn (increase of 7.1%). General government deficit in 2016 stood at -2.4% GDP (- 2.6% in 2015) and general government debt amounted to 54.4% GDP (from 51.1% in 2015).

HOUSING AND MORTGAGE MARKETS

HOUSING MARKET

The year 2016 was another record year in terms of developer activity – both sales and supply of new dwellings were record high.
The number of building permits amounted to nearly 81,000 units (an increase of nearly 12% in comparison to 2015) and around 163,000 dwellings were completed. Nearly 174,000 dwellings were still in the construction phase. These results show that Polish construction sector is in its best shape since 2008.

It should be stressed that developer activity is focused mainly in the biggest cities, where the demand is also the strongest. Smaller towns are dominated by private construction – plots of land are cheaper there and it is easier and more attractive to build one's own house.

Another interesting observation is that the share of cash transactions was very high in 2016. According to the National Bank of Poland's (NBP) estimates, between 57 and 70% of dwelling purchases in the 7 biggest cities were financed by cash. It appears that buyers mainly withdrew their savings from banks/ financial markets and invested them in dwellings for rent.

The intense activity of the housing market did not affect price levels – which remained stable with small increases on regional markets. With an average monthly wage in the corporate sector it is possible to purchase 0.88 square metres, an increase of 0.39 square metres with respect to the record low noted in Q3 2007.

MORTGAGE MARKETS

Around 170,000 new housing loans were granted in 2016. At the end of the year there were over 2 million residential loan contracts outstanding, with a total housing portfolio of over PLN 400 mn. Mortgage market activity in 2016 was comparable to the year before, even though a considerable number of dwellings was purchased in cash.

As far as legal changes are concerned, those made did not particularly support the development of mortgage market. In January 2016 a new banking tax was introduced, which resulted in an increase in bank fees and mortgage loan margins – and then translated into weaker lending action.

In April 2016 the act on the suspension of the sale of property of the Agricultural Property Stock of the State Treasury entered into force. This act put restrictions on trade in agricultural properties larger or equal to 0.3 hectares and limited the sum of the mortgage to the market value of the property. As a result, banks essentially withdrew from financing investments on such plots. Even a relatively fast amendment of these regulations did not mitigate the negative effects of that act for the market.

Furthermore, since 1 January 2016 a new LTV limit of 85% 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 the Polish Financial Supervision Authority (KNF). However, banks are still free to grant higher LTV loans (but with additional insurance), so it is still possible for clients to obtain a residential mortgage loan with only a 10% down payment.

The quality of the credit portfolio remained stable in 2016. According to the National Bank of Poland's estimates, the share of NPLs in the portfolio amounted to 2.9%.

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 2016 amounted to over PLN 4.8bn, while covered bonds outstanding amounted to around PLN 9.8bn.

On 1 January 2016 a significant amendment of the "Act on covered bonds and mortgage banks" came into force. The new regulation provides among others:

- statutory over-collateralisation 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%);
- changes to the bankruptcy law in order to properly guarantee timely and 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 Act 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 are to be conducted also during the course of 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.

It should be noted that the specialised mortgage business seems to be gaining in importance for Polish banks. Since 2015 there have been 3 mortgage banks active in Poland (PKO Bank Hipoteczny, Pekao Bank Hipoteczny and mBank Hipoteczny) and at least 3 other universal banks are considering the possibility of establishing mortgage banks.

	POLAND 2015	POLAND 2016	EU 28 2016
Real GDP growth (%) (1)	3.8	2.7	1.9
Unemployment Rate (LSF), annual average (%) (1)	7.5	6.2	8.5
HICP inflation (%) (1)	-0.7	-0.2	0.3
Outstanding Residential Loans (mn EUR) (2)	90,901	92,015	6,981,540
Outstanding Residential Loans per capita over 18 (EUR) (2)	2,921	2,957	16,838
Outstanding Residential Loans to disposable income ratio (%) (2)	35.8	35.8	n/a
Gross residential lending, annual growth (%) (2)	3.7	23.1	3.2
Typical mortgage rate, annual average (%) (2)	4.4	4.4	2.6
Owner occupation rate (%) (1)	83.5	83.7	n/a**
Nominal house price growth (%) (2)	1.1	2.5	4.6

* 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 2017, 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:	45.35% of new loans granted in 2015 had LTVs over 80% 35.44% – LTVs between 50-80% 6.76% – LTVs between 30-50% 12.45% – 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 years (according to data for 4Q 2016, around 64% of new lending belonged to that range; this share has been quite stable in recent years).
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: PLN 1,010 + 0,4% over the value of PLN 60,000 (+ VAT 23%) • additional notary documents – PLN 6 per page • entry do mortgage register – PLN 200; if there's no mortgage register for the property - establishment of mortgage register costs additionally PLN 60 • 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 PLN 300-600 • 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 2016, the total amount of this subsidy was around PLN 700 mn (27,085 loans).

Portugal

By António Figueiredo Lopes, Caixa Economica Montepio Geral

MACROECONOMIC OVERVIEW

In 2016, GDP recorded a growth in volume of 1.4% compared to 1.6% in 2015, representing a decrease of 0.2 pps. Portuguese GDP growth was 0.3 pps below the record in the Euro area, but still 4% lower than that recorded in 2008, the year in which the last international economic and financial crisis began.

Portuguese economic growth has been driven by many factors, such as the maintenance of low or even negative interest rates, long-term unemployment and the increase of geopolitical tensions in Europe.

In 2016, the ratios of indebtedness of households and enterprises declined, although they remain at high levels. The Government debt ratio remained stable in net terms and a reduction of external debt was registered for the whole economy, resulting in an improvement of international investment by 7 pps of GDP.

Economic activity was supported by domestic demand, which made a positive contribution of 1.5 pps, albeit at a slower rate than the previous year (+2.6 pps in 2015) as a result of a reduction in investment and, to a lesser extent, a slowdown in private consumption. Private consumption expanded by 2.3% (+2.6% in 2015) and public consumption by 0.5% (+0.7% in 2015).

Investment is critical to the growth of the economy, but in 2016 a fall in volume of 0.8% was registered, after growth of 4.7% in 2015.

A slight rise in the savings rate to 4.4% was registered in Q2 2016 and to 4.6% in Q3 2016, but the rate went back down to 4.4% in the fourth quarter.

A decrease in the unemployment rate of 1.4 pps was registered, declining from 12.6% in 2015 to 11.2% in 2016, therefore continuing the trend of reduction from the historic peak reached in early 2013 (17.5%).

Inflation, measured by the annual average change in the Consumer Price Index (CPI), was 0.6% in 2016, accelerating slightly compared with 0.5% in 2015 (-0.3% in 2014 and + 0.3% in 2013).

HOUSING AND MORTGAGE MARKETS

HOUSING MARKET

In 2016 the housing market continued to recover with 8,219 new building permits which constitutes a 0.6% increase with respect to the previous year (data has been revised from 2012 onwards). Housing completions also showed a marginal increase of 0.25% y-o-y reaching 6,704 new units in 2016 and therefore reversing the downward trend of the past decade.

The Portuguese real estate industry appears to be more optimistic, in line with the European market, benefiting from an improved macroeconomic framework, greater consumer confidence, reflecting the positive contribution of the perspectives on the evolution of households' financial situation, the better working conditions and also the increased appetite of mainly international investors keen on diversifying their real estate portfolio.

In the last three years, real estate investment has also reinforced its weight as a component of direct investment by non-residents, both in the demand for land and in property.

Portugal, being an open economy, direct property investment from abroad is an important source of financial flows and input that corresponds to the investment by non-residents in properties and houses in the country, either for personal use or for lease.

Compared with other European countries, Portugal is one of the main receivers of direct investment as a percentage of GDP. Between 1996 and 2016, direct foreign investment represented, on average, a net annual input of funds in the economy of 2.4% of GDP, constituting the main source of external funding.

Confidence in the housing market is also reflected in the domestic market, with domestic investors also viewing the real estate market as a source of investment. In fact, real estate continues to be a very attractive investment, with residential property being particularly popular amongst investors. 2016 marked a further upward movement of prices (all types of dwellings), registering an annual growth of 7.1%, and the number of purchase and sale contracts related to real estate contributed 18.5% y.o.y.

MORTGAGE MARKETS

In 2016 outstanding residential loans continued the downward trend which started in 2011, with the volume of residential loans reducing again by 3.2% y-o-y, reaching EUR 95,377 million. This reflects the maintenance of outstanding debt repayments by households in 2016, maintaining the trend observed since 2011. Gross flows of new residential loans grew by 44.3% in 2016. The main contributors to this trend were the evolution of the economy, higher levels of consumer confidence, better credit terms with less restrictive funding conditions of banks and, most importantly, the very low level of EURIBOR rates (most representative index). In 2015 the EURIBOR rate reached negative levels for the first time, and, therefore, the interest rates on new residential loans in 2016 fell by 0.5 pps, compared to 2015 (from 2.4% to 1.9%, at the end of the period).

In the short term, the context of low interest rates might be favorable to the Portuguese economy, taking into account the high debt levels of the residents. However, maintaining low interest rates for an extended period penalises income generation for the financial system, undermining capacity enhancement capital. In terms of risk, mortgages loans maintained their low level, with the credit-at-risk ratio (percentage of gross credit) remaining stable at about 6% since mid-2011.

MORTGAGE FUNDING

In Portugal the most common mortgage is the housing loan, but there are other variants. One such variant is a multipurpose credit, an additional credit which can be used to further housing expenses such as the furniture. These types of creadig follow the same procedures and rules as the mortgage. Another variant is a consolidated credit that results from the amalgamation of several credits contracted previously by the client and whose guarantee is the mortgaged property.

Retail funding remains the main source of funding of mortgage credit, which, combined with the credit reduction, enabled a further decrease in the proportion of credit-for-deposits ratio in 2016 to 96%. There was a change in the calculation of the ratio of credit to deposits in 2016.

The use of funding to central banks subsequently decreased, representing 6.4% of the total assets of the banking system, representing the lowest value since the beginning of the program of economic and financial assistance (the maximum was recorded in June 2012 at EUR 64.1 mn).

	PORTUGAL 2015	PORTUGAL 2016	EU 28 2016
Real GDP growth (%) (1)	1.6	1.4	1.9
Unemployment Rate (LSF), annual average (%) (1)	12.6	11.2	8.5
HICP inflation (%) (1)	0.5	0.6	0.3
Outstanding Residential Loans (mn EUR) (2)	98,516	95,377	6,981,540
Outstanding Residential Loans per capita over 18 (EUR) (2)	11,523	11,169	16,838
Outstanding Residential Loans to disposable income ratio (%) (2)	80.0	75.1	n/a
Gross residential lending, annual growth (%) (2)	73.5	44.3	3.2
Typical mortgage rate, annual average (%) (2)	2.4	1.9	2.6
Owner occupation rate (%) (1)	74.9	74.8	n/a**
Nominal house price growth (%) (2)	3.1	7.1	4.6

* 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 2017, Statistical Tables.

PORTUGAL FACT TABLE

Entities which can issue mortgage loans:	In Portugal, credit institutions have the competence to grant financing according to Decree-Law No. 349/98 of November 11 and within the limits established in articles 3 and 4 of Decree-Law No. 34/86, of March 3 for commercial and investment banks.
The market share of the mortgage issuances:	According to Banco de Portugal retail banking report, in 2015 the six largest institutions concluded 84.2% of new mortgage loans, representing 83.1% of outstanding amount, which compares with 78.9% 76.8%, respectively, in 2014. At December 31, 2015, ten largest credit institutions had 95.6% of mortgage loans portfolio and 93.9% of outstanding amount.
Proportion of outstanding mortgage loans of the mortgage issuances:	The six largest institutions in Portugal are Millennium BCP, CGD, BPI, Santander Totta, Novo Banco and Montepio. And hold: CGD (33.1%); Millennium BCP (25.2%); Santander Totta (17.9%); BPI (11.4%); Novo Banco (10.2%); Montepio (7.4%).
Typical LTV ratio on residential mortgage loans:	There is no available information about this issue, but it is considered good practice to ensure that lenders adopt prudent LTV ratios, forcing an appropriate advance from the consumer's own resources and not, for example, another financier. In the case of individuals, it is important that financial institutions comply with the rules laid down in the Directive on credit agreements for the acquisition of residential real estate (Mortgage Credit Directive) when assessing applications for credit. Among other provisions, this policy establishes that the lending capacity should be assessed by credit institutions of complexity of the work form, considering the effect of plausible increases in market interest rates, and taking into account all claims incurred by the borrower. The imposition of limits on the LTV has a direct impact on access to credit, and presently the LTV limits apply only in new credits – the application to the entire loan portfolio would require a constant update of the value of the collateral. In Portugal, until the end of 2014, the ratio between the amount of the loan and the value of the guarantee evolved, according to the housing credit contracts of eight major banking groups by the end of 2014. The LTV average at the time of hiring has declined since 1999, a trend that accelerated in the context of the financial crisis. For contracts performed in 2014, the average LTV settled around 70%. By the end of that year, almost 65% of existing loans had an LTV ratio less than or equal to 80%, while 25% of loans had an LTV between 90 and 100%.
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 2015 had an average maturity of 32.1 years, higher than in about 16 months to contracts concluded in 2014 and in about six months when checked in the portfolio. The maximum term contracted in 2015 was 50 years, equal to the verified during the previous two years.
Most common way to fund mortgage lending:	Retail funding is the main source of funding of the national banking system.
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:	Since September 30, 2012 it is not any more possible to hire mortgages loans with a subsidised system scheme. Currently there are special conditions for disable people with a disability grade greater than 60% and for family households in very difficult economic situation (Law 58/2012 of November 9).

Romania

By Ştefan Dina, Romanian Association of Banks

MACROECONOMIC OVERVIEW

For Romania, 2016 was the sixth consecutive year of growth after the recession of 2009-2010. The annual growth rate of GDP in 2016 at 4.8% since then. As in the previous two years, consumption was the main growth driver but, unlike in the previous two years, the expansion of public consumption contributed positively to the result. The pro-cyclical fiscal policy pushed the deficit of the general consolidated budget up to 3% of the GDP from 0.8% in 2015.

The double digit nominal annual growth of minimum wages for the fourth consecutive year gave a boost to average figure and the number of employed people returned to the pre-crisis level. The labour market tightened as indicated by the declining trend of unemployed to vacant jobs ratio which, as well, headed towards pre-crisis levels. Nevertheless, the employment decreased in 2016 due to the decline of self-employment which was not counterbalanced by the rise in the number of employees.

The HICP average annual inflation was -1.1% in 2016. The negative inflation resulted from the VAT rate cut from 24% to 20% for non-food items beginning in January 2016. This prompted the central bank to hold the monetary policy rate at 1.75%. The abundant liquidity maintained the interest rates on the money market below the monetary policy interest rate and boosted the transmission of lower interest rates to the real economy.

HOUSING AND MORTGAGE MARKETS

The house ownership rate remained the highest in EU at 96% in 2016. The number of licenses issued for residential construction decreased by -1.2% y-o-y in 2016 due to the decline in the licenses issued for rural areas. The number of finished dwellings has increased by 11% y-o-y in 2016. The prices of residential properties rose by 8.0% y-o-y. The growth rate of residential property prices was even more dynamic in Bucharest (9.7% y-o-y). Although prices of 2016 remained 20.5% lower than the prices in 2009, their dynamism raised the attention of the central bank. In the last Financial Stability Report (dated June 2017) house prices' growth was presented as a low but ensuing systemic risk.

Higher residential property price and an augmented residential property supply indicate a demand-driven growth on the residential property market. This is despite the existence of moderating structural factors such as ageing and declining demographics. In the period from 1994 to 2014 the number of dwellings increased by slightly more than 1 mn units, whereas population shrank by more than 3 mn inhabitants and the median age of population increased by 7 years up to 41 years. There are several arguments that the demand for housing will remain stable. First, the stock of dwellings is old. In fact, according to the Housing Census from 2011, half of the dwellings are at least 47 years old, 20% of the dwellings are at least 37 years old, 13.9% of the dwellings are at least 27 years old and only 16.1% are built after 1990. Second, Romania has the largest proportion of population living in overcrowded[1] households, 49.7% in 2015 compared to 16.6% the EU average. Third, the affordability of houses increased over time, due to downward adjustment in house prices, lower interest rates and higher incomes. Households gross disposable income grew faster than the GDP starting with 2013 and reached almost 80% of GDP in 2016 up from 60% in 2008.

The Romanian housing loan market is young (the first housing loans were granted in 2001). Therefore, despite of the significant growth in the aftermath of global financial crisis, the amount of housing loans at 7.6% of GDP in 2016 remained the lowest in the EU even in comparison with peer countries[2]. The substantial growth in the market is largely due the government support for first home buyers – Prima Casa program launched in mid-2009[3]. The loans granted through Prima Casa between mid-2009 and 2016 amounted to EUR 7.37 bn and represented 57% of the outstanding housing loans. One can infer that the main purpose for buying houses through housing loans is for debtors' own living, therefore the incentives for loan reimbursement might be strong.

The law on the discharge of mortgage–backed debts through transfer of title over immovable property (Law 77/2016) adopted in May 2016 determined the tightening of credit standards for housing loans. However, following a clarifying decision of the Constitutional Court, a gradual relaxation of the credit standards was registered starting October 2016. Overall, the stock of housing loans has increased by 12% y-o-y in 2016. The expansion of RON-denominated loans up by 53.3% y-o-y more than offset the decline of foreign currency denominated loans (-11% y-o-y). By 2016 year-end, 49% of total housing loans were denominated in domestic currency. The interest rate for new housing loans was 3.52% pa for domestic currency denominated loans and 3.6% pa for euro denominated loans in December 2016. Compared to December 2015 the interest rate on new housing loans in domestic currency has declined by 32 bps, while the interest rates on new housing loans in euro has declined by 7 bps. LTV for new housing loans slightly increased from 81% in 2015 to 83% in 2016. For mortgage loans the NPL ratio declined from 5% in December 2015 to 4.5% in December 2016.

MORTGAGE FUNDING

Deposits are the primary source for mortgage funding. During the last years residents' deposits increased faster than non-government loans such that the LTD ratio declined from the maximum 1.3 reached in December 2008 to 0.8 in December 2016. External financing followed a declining trend, the banks' share of external liabilities in total liabilities reached 11.8% in December 2016. The external financing includes mainly deposits and borrowings from financial institutions, especially parent banks (68.3% of total external liabilities[4] in December 2015).

1 The overcrowding rate is defined as the percentage of the population living in an overcrowded household. A person is considered as living in an overcrowded household if the household does not have at its disposal a minimum number of rooms equal to: one room for the household; one room per couple in the household; one room for each single person aged 18 or more; one room per pair of single people of the same gender between 12 and 17 years of age; one room for each single person between 12 and 17 years of age and not included in the previous category; one room per pair of children under 12 years of age.

2 Countries that subsequently joined the EU.

3 Main features: reduced margins, 5% advance payment, 50% guarantee offered by the National Guarantee Fund for Small and Medium Enterprises.

4 Financial Stability Report, April 2016, National Bank of Romania.

	ROMANIA 2015	ROMANIA 2016	EU 28 2016
Real GDP growth (%) (1)	3.9	4.8	1.9
Unemployment Rate (LSF), annual average (%) (1)	6.8	5.9	8.5
HICP inflation (%) (1)	-0.4	-1.1	0.3
Outstanding Residential Loans (mn EUR) (2)	11,522	12,893	6,981,540
Outstanding Residential Loans per capita over 18 (EUR) (2)	714	804	16,838
Outstanding Residential Loans to disposable income ratio (%) (2)	9.8	10.4	n/a
Gross residential lending, annual growth (%) (2)	63.2	-1.8	3.2
Typical mortgage rate, annual average (%) (2)	4.0	3.5	2.6
Owner occupation rate (%) (1)	96.2	96.4	n/a**
Nominal house price growth (%) (2)	3.6	8.0	4.6

* 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 2017, 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 36 credit institutions of which are 8 foreign banks' branches. In addition, according to the National Bank of Romania's General Registry, a total of 145 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 2016/Q4, the average LTV ratio for new loans given in the past three months was around 80%, and the average LTV ratio for the total amount of loans for real estate investments was approximately 85%, without significant changes in comparison to the previous quarter (2016/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. 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.

* ***Source:*** *www.bnr.ro* – Bank Lending Survey February 2017

Slovakia

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

MACROECONOMIC OVERVIEW

Slovakian real GDP increased by a robust 3.3% in 2016. The economy of Slovakia, after the country joined the EU, has substantially converged to the EU average, also helped by a speedy recovery from the financial crisis.

Slovakia's positive economic results was mainly driven by improving labour markets and household credit growth, coupled with low inflation.

The labour market continues to improve with unemployment falling below 10% for the first time since 2008. This said, the labour market remains highly segregated with shortages in the west and high unemployment rates in the east of the country. Income inequality is very low with respect to other EU countries, mostly because of the lack of very high earners but also as a result of a general improvement in low salaries.

Headline inflation remained marginally negative in 2016, while core inflation hovered around 0%. The inflation rate is set to grow in 2017 on the back of labour shortages, solid consumer spending and growing food and services prices.

After a substantial narrowing of fiscal imbalances Slovakia's public deficit closed at just above 2% of GDP. The result would have been even better had it not been for a drop of EU structural funds' inflows.

HOUSING AND MORTGAGE MARKETS

Outstanding residential loans rose for the third year in a row by around 14% y-o-y, on the back of an increase of gross lending of circa 50%. 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 2016, on average 2%, from 2.7% the year before. The National Bank of Slovakia (NBS) has introduced a broad spectrum of macroprudential measures to curb demand and supply of real estate loans. The European Systemic Risk Board has judged the intervention of the NBS to be "appropriate and expected to be sufficient". It is key to remember that household indebtedness is still low with respect to other Member States and credit growth is linked to the financial deepening of the country.

House prices gained momentum by exhibiting a 4% growth y-o-y, adding to the positive streak of the previous two years. The good results of the economy at large are lifting house prices - a pattern familiar also to the other Visegrad partners. Over 90% of the population live in a dwelling which they own, 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 last year from a 6-year slump. This year house prices gained further upward momentum growing at more than 5% y-o-y.

MORTGAGE FUNDING

Deposits are for banks a main source of funding 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 remained virtually unchanged in 2016 vis-à-vis 2015. Covered bond issuance was instead halved y-o-y. Most of the market is comprised of private placement.

	SLOVAKIA 2015	SLOVAKIA 2016	EU 28 2016
Real GDP growth (%) (1)	3.8	3.3	1.9
Unemployment Rate (LSF), annual average (%) (1)	11.5	9.6	8.5
HICP inflation (%) (1)	-0.3	-0.5	0.3
Outstanding Residential Loans (mn EUR) (2)	19,714	22,508	6,981,540
Outstanding Residential Loans per capita over 18 (EUR) (2)	4,460	5,085	16,838
Outstanding Residential Loans to disposable income ratio (%) (2)	42.1	46.8	n/a
Gross residential lending, annual growth (%) (2)	8.9	55.1	3.2
Typical mortgage rate, annual average (%) (2)	2.7	2.0	2.6
Owner occupation rate (%) (1)	90.3	89.3	n/a**
Nominal house price growth (%) (2)	0.9	4.2	4.6

* 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 2017, 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 Ljubljana

MACROECONOMIC OVERVIEW

According to the release of national accounts data by Statistical Office, economic growth in Slovenia continued and stood at 2.5% in year-on-year terms. Exports with real growth of 5.7% remain the main engine of economic growth and are strengthening as a result of growth in foreign demand and the improved competitiveness of the tradable sector. Domestic private-sector demand also grew by 2.8% as a result of the improvement in the situation on the labour market and a significant increase in consumer confidence. Owing to the loosening of austerity measures adopted in 2012 and 2013, government consumption also expanded by 2.6% and can be expected to increase in the future as a result of a rise in employee compensation and growth in expenditure on goods and services in healthcare (Spring forecast of economic trends 2017). Private investment in machinery and equipment also rose more noticeably, which is related to the high level of capacity utilisation, good business results and improved financing conditions. Gross residential fixed capital formation growth reached 3% in the last quarter of 2016. However, overall investment activity remained weak in 2016 with a contraction of -3.1%, mainly owing to the very modest drawdown of EU funds upon the transition to the new financial perspective.

There was a 2% growth in employment in 2016 as a result of more broad-based economic growth and favourable expectations. Employment increased in most private sector activities, especially in manufacturing, trade, accommodation and food service activities and professional, scientific and technical activities. The unemployment rate estimated by Eurostat stood at 8% at the end of 2016.

Deflation diminished throughout 2016. Prices as measured by the HICP fell by 0.2% overall, compared with 0.8% in the previous year.

Slovenia is gradually improving its fiscal position. The general government deficit was -1.5% of GDP in 2016 and the public debt to GDP 79.7%; both are expected to decline in the coming years.

HOUSING AND MORTGAGE MARKETS

In 2016, the growth in sales continued in the Slovenian real property market, especially due to the growth in the number of sales of residential real property and land for construction. According to SURS figures, the number of transactions in dwellings was up 14% y-o-y and at the highest level since the outbreak of the crisis. The predominant share of transactions are carried out on the secondary market as new dwellings contribute less than 10% of the total volume of transactions on the market.

Residential real estate prices continued to record moderate growth in 2016. According to Statistical Office figures, the price of used flats in Slovenia was up 4% in comparison to 2015 and 6% in the capital city, Ljubljana. The main factors impacting the growth in demand for residential real property include low interest rates and modest growth of residential loans which has been evident in the past three years, the increase in employment and the rise in salaries and fall in prices of flats during the crisis.

On the primary housing market, supply of newly build housing remained relatively low. Housing construction remains low with less than 3,000 housing units completed in 2016. Housing starts in 2016 were 15% higher than in 2015 and are expected to increase further in the future as the Slovenian real estate property market is expecting the start of a new investment and construction cycle, since supply will try to catch up with growing demand. This is also supported by a 16% increase in the number of dwellings anticipated according to the building permits issued for residential buildings. This is the first such increase since the outbreak of the financial and economic crisis; however, the number is still quite low in comparison to the pre-crisis period.

Demand for housing loans is continuing to rise, and is increasingly being reflected in growth in new housing loans. The stock of housing loans at the end of the 2016 was up 3.5% in y-o-y terms and new housing loans increased by 19.5%. Some of the growth is also attributable to the changes in the terms on existing housing loans (primarily changes from variable-rate to fixed-rate loans). Interest rates on housing loans have continued to fall, while the average maturity term of new housing loans is lengthening, and now exceeds 19 years (Financial Stability Review, 2016).

According to the Financial Stability Review (2016) the indicators of the sustainability of lending for housing purposes by banks remain stable, and do not suggest any increased risk to the banking system. In general, banks left their credit standards on housing loans unchanged in 2016, although there is some evidence of a slight easing of loan terms on new housing loans. The average LTV for housing loans remained around 60%.

The new Consumer Credit Act that was passed in December 2016 is expected to bring additional caution on the part of banks in formulating credit standards. Additionally, in 2016 the Bank of Slovenia issued a macroprudential recommendation for the real estate market that includes the recommended a maximum LTV ratio of 80% and a recommended maximum the DSTI (debt service-to-income) ratio of 50% to 67% depending on the monthly income. These macroprudential measures are being introduced as a non-binding recommendation.

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.

Nowadays, Slovenian banks to a large extent rely on domestic funding and therefore have reduced their dependence on wholesale financial markets. Sight deposits now account for 41% of total liabilities, and this figure is expected to increase further. However, the low interest rate environment is introducing instability into this structure, especially with high volatility in deposits by corporates which also began to stagnate in 2016 after several years of increases (Financial Stability Review, 2016).

References:

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	SLOVENIA 2015	SLOVENIA 2016	EU 28 2016
Real GDP growth (%) (1)	2.3	2.5	1.9
Unemployment Rate (LSF), annual average (%) (1)	9	8	8.5
HICP inflation (%) (1)	-0.8	-0.2	0.3
Outstanding Residential Loans (mn EUR) (2)	5,525	5,717	6,981,540
Outstanding Residential Loans per capita over 18 (EUR) (2)	3,244	3,359	16,838
Outstanding Residential Loans to disposable income ratio (%) (2)	23.5	23.8	n/a
Gross residential lending, annual growth (%) (2)	40.0	19.5	3.2
Typical mortgage rate, annual average (%) (2)	2.5	2.3	2.6
Owner occupation rate (%) (1)	76.7	76.2	n/a**
Nominal house price growth (%) (2)	0.8	3.3	4.6

* 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 2017, Statistical Tables.

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 60%.
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. Before the crisis, in 2008, Slovenian banks obtained a third of their funding from foreign banks. The crisis made this funding unobtainable, and it plummeted by more than a half by 2012. The banks thus became very active in obtaining domestic primary funding. The LTD ratio for the non-banking sector declined by just over 30 percentage points during this period and by a third at the banks under majority foreign ownership. LTD ratio for the non-banking sector stood at 78% in 2016.
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 Leyre Lopez, Spanish Mortgage Association

MACROECONOMIC OVERVIEW

In 2016, the economy continued to show signs of improvement with real GDP growth at 3.2% in 2016 the same figure as 2015. The last forecast published by the Ministry of Economy maintains this favourable growth path, although at a slower pace than in 2015 and 2016 (+2.7% for 2017, +2.5% for 2018, +2.4% for 2019 and for 2020). Nevertheless, there are several possibilities of an upward revision for 2017.

The enhanced confidence triggered by the good performance of the labour market has had a positive impact on domestic demand, in the context of favourable financial conditions. As a benchmark, the economy created around 414,000 jobs during the year and the year ended with an unemployment average rate of 19.6% (its lowest value since 2009).

Gross fixed capital formation, with less relevance for GDP, increased by 2.2% y-o-y underpinned by the improvement of residential construction investment (+3.8%). For their part, exports (+4.4%) increased more than the imports (+3.3%), which enabled growth and resulted in a decrease of public debt.

Regarding inflation, during 2016 Harmonised Consumer Price Index decreased by 0.4% (-0.6% in 2015), although at the end of 2016 (December 2016), the harmonised consumer price index had increased by 1.4% y-o-y (highest rate seen since 2013), partly due to price increases for motor and heating fuels in contrast with the fall that was experienced in the previous year and also, to the price rise in energy products. Thus, core inflation recorded a slight increase, which led to an annual variation of 1.1%, remaining at monitored levels.

After difficult years with high deficits, throughout 2016 the Spanish economy managed to position itself within the limits agreed with the European authorities (4.6%) with a public deficit of 4.5%, with a view to achieving the 3% threshold deficit (Maastricht Treaty). Despite the high level of indebtedness, the low interest rates resulting from the EU's expansionary monetary policy together with the economic growth are facilitating the reduction of the deficit. Despite the fact that the government has managed to reduce the public debt ratio to 99.4% of GDP, it still remains high from a stability perspective.

HOUSING AND MORTGAGE MARKETS

HOUSING MARKET

The favourable financial framework, the positive evolution of the labour market and the improved sentiment have prompted increased demand for housing, which, as a result of slower developments in supply, has increased house prices in some areas of the country.

International funds have identified profitable opportunities to invest in Spain where both house prices and transactions are gaining momentum once more. It is worth mentioning that the Spanish housing market is not only characterised by the need to meet residents' demand, but also foreign demand, which is quite important in Spain. In this respect, in 2016, 457,689 transactions were registered, a 13.9% increase from the previous year. The main driver that has spurred this favourable evolution has been the purchase of existing houses that account for 90% of the global figure. It is worth remarking that some of the existing houses are technically and fiscally considered as being pre-owned houses, as they originate from the repossessed assets of financial entities, however, in reality they are newly-built houses that have had a previous owner.

As we have previously stated, house prices have continued their positive progress since 2014. Thus, house prices (appraisal value) in 2016 improved by 1.5% y-o-y up to EUR 1,512 per square metre. The price index (2006=100) amounted to 75.96 in December 2016. In terms of the features of the housing market, the price recovery has not been homogeneous in all regions. This favourable performance y-o-y has been more significant in Catalonia with an annual variation of 4.4% (especially Barcelona, +6.2%), Madrid (+4.8%) and the Canary Islands (+3.8%). In general, the price recovery creates a feeling of increased household wealth, taking into account the propensity towards home ownership in the Spanish economy (≈77%). The recovery of the housing market recovery is also seen in the 64,038 housing starts in 2016, a 28.9% increase compared to 2015. Even so, these figures are far from those before the crisis, where the number of housing starts amounted to almost 900,000.

From a different perspective, in 2016 40,119 dwellings were completed, in accordance with new housing projects started in 2013-2014 (taking into account the 2 years – approximately – construction process). Building permits also made a significant return in the real estate sector, with a growth of 51.9% y-o-y (54,760 permits granted).

MORTGAGE MARKETS

The mortgage market is still experiencing challenges such as, decreasing activity (although it is possible to identify positive evolutions for the coming years), diminishing profitability, as a consequence of the historically low interest rates, and persistent non-performing assets, although these are fortunately in decline, that reduce the income capacity of financial entities.

Total outstanding mortgage lending amounted to EUR 660,388 million at the end of 2016, a -4.6% decrease compared to the previous year as a result of the deleveraging process in which Spain has been engaged since the end of 2009. For their part, outstanding residential mortgage loans recorded a fall of -3.3% y-o-y to EUR 544,499 mn. Commercial mortgage lending activity registered the sharpest annual drop of -10.6%, and the outstanding lending was almost 4 times lower than in 2009.

With respect to gross residential lending, 2016 continued to show signs of progress, with a growth of 5% y-o-y that amounted to EUR 37,492 mn. An annual increase of around 50% in new lending would be necessary in order to balance the outstanding residential loans, providing that the pace of amortisation remains stable (≈ -9.9%).

The weighted average for residential mortgage loans recorded an interest rate of 2.01%, 23 bps less than in 2015. Interest rates for variable loans fell by over 38 bps to 1.66% (2.04% in 2015), in accordance with the EURIBOR scenario.

The short-term, medium-term and long-term rate loans decreased to 2.01%, 4.40% and 2.39% respectively (2.38%, 4.96% and 2.80% in 2015, respectively). In 2016, all interest rates recorded their lowest figure in the 2003-2016 data series, which has resulted in a lower financial burden for both enterprises and households, with a direct impact on demand.

The market share of long-term fixed loans continued to rise, at a fast pace, throughout 2016. Thus, loans with an initial fixed rate period of more than 10 years amounted to 30.5% of the market in the last quarter of the period, compared to 6.9% in 2015. For their part, the market share of variable rate loans decreased from 62.6% in 2015 to 42.2% in 2016.

The average LTV ratio was 64.4% at the end of 2016, representing a slight increase compared to 2014 and 2015 data. For their part, the share of loans with a LTV over 80% also fell, from 15.6% at the end of 2015 to 13.8%.

At the close of 2016, the level of NPLs had maintained its favourable downwards trend which had characterised the previous three years in roughly all segments, thanks to the macroeconomic evolution and the ongoing efforts made by financial institutions aimed to enhance their doubtful loan portfolios. Thus, the Spanish private sector recorded an NPL ratio of 9.2%, the best performance in the data series since May 2012, notwithstanding that the total amount of outstanding lending in this sector is still experiencing slight reductions. The NPL ratio for loans for housing purchase performed positively in annual terms, recording a rate of 4.7% at the end of 2016 (4.8% in December 2015 and 5.9% in December 2014). The NPL ratio of loans for real estate financing activities recorded its lowest value since March 2012, with a ratio of 25.3% in December 2016. In parallel, NPLs in the construction sector have improved, with a ratio of 29.5% in the current exercise, compared to the NPL ratios of 30.6% in December 2015 and 33.2% in December 2014. Even so, from the figures are still far from the pre-crisis figures in both segments.

MORTGAGE FUNDING

Saving deposits and Spanish Covered Bonds continued to be the main funding instruments for the mortgage market.

Saving deposits amounted to EUR 1.3 tn (-2.21% lower compared to the end of 2015). The LTD ratio went down to 49%, from 50% in 2015.

Outstanding mortgage securities' activity decreased by -3.56% in 2016 compared to 2015 to EUR 370,159 mn (63% of this figure is represented by Spanish Covered Bonds and 37% by Mortgage Back Securities), in line with the lower volume of outstanding mortgage activity.

Spanish Covered Bonds ("Cédulas hipotecarias"), which represent 35% of total outstanding mortgage lending, continued to follow a downward path, although the decrease is slowing down. In 2016, the outstanding volume of "Cédulas hipotecarias" amounted to EUR 233,043 mn, -8.29% less than the previous year. The total volume issued in 2016 slightly increased by 0.06% y-o-y to EUR 31,393 mn.

Mortgage Back Securities (MBS) have reversed the decreasing trend seen since 2010 and, for the first time since 2009, the annual variation is positive (5.54%). By the close of 2016, the outstanding volume of MBS was EUR 135,467 mn (the share of securitised assets decreased -17.71% down to EUR 8,871 million). Issuance of mortgage securitisations between January and December 2016 amounted to EUR 19,621 mn, increasing by 93.6% compare to the cumulative total in 2015.

	SPAIN 2015	SPAIN 2016	EU 28 2016
Real GDP growth (%) (1)	3.2	3.2	1.9
Unemployment Rate (LSF), annual average (%) (1)	22.1	19.6	8.5
HICP inflation (%) (1)	-0.6	-0.3	0.3
Outstanding Residential Loans (mn EUR) (2)	562,828	544,499	6,981,540
Outstanding Residential Loans per capita over 18 (EUR) (2)	14,771	14,292	16,838
Outstanding Residential Loans to disposable income ratio (%) (2)	82.5	77.8	n/a
Gross residential lending, annual growth (%) (2)	22.6	33.3	3.2
Typical mortgage rate, annual average (%) (2)	2.2	2.0	2.6
Owner occupation rate (%) (1)	78.8	78.2	n/a**
Nominal house price growth (%) (2)	1.8	1.5	4.6

* 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 2017, 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 allowed by law to grant mortgage loans and issue securities. It is worth mentioning that saving banks were especially affected by the financial crisis due to their high exposure to the real estate sector. Several savings banks disappeared through liquidation or acquisition, and most of those remaining became banks after Law 26/2013 of 27^{th} of December was passed. Since then, only small and regional saving banks operate in the market.
The market share of the mortgage issuances:	At the end of 2016, around 88% of the total volume of new mortgage loans was granted by banks. Other financial institutions, such as credit cooperatives and financial credit establishments, represented the remaining 12%.
Proportion of outstanding mortgage loans of the mortgage issuances:	Banks and former saving banks account for the major part of the market, representing around 91% of total outstanding mortgage lending. The remaining 9% is accounted for by credit cooperatives (8%) and financial credit establishments (1%).
Typical LTV ratio on residential mortgage loans:	On average, the LTV ratio on new residential mortgage loans stands at around 64% (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 (the most common being the Euribor 12m). Since 2015, as a result of the security they offer, initial-fixed interest rate mortgage loans, with a fixation period of over 10 years, are gaining increasing importance in the market, representing around 30% of gross lending.
Typical maturity of a mortgage:	The average maturity for a mortgage loan in Spain is around 23 years (according to Bank of Spain statistics). The real amortisation period is usually lower however, at between 10 and 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 transaction cost associated with house purchase are VAT for new housing, representing 10% of the value of the house and the property transfer tax for second hand dwellings (normally between 6-10%, depending on the geographical area). Other transaction costs such as land property registration, notary fees, and costs related to the mortgage can amount to 3-5% of the housing value.
The level (if any) of government subsidies for house purchases:	There have been no housing subsidies for housing purchase since the end of 2012.

Sweden

By Christian Nilsson, Swedish Bankers' Association

MACROECONOMIC OVERVIEW

Exports was important to the GDP growth in 2016 and the investment-led recovery in the OECD countries is continued good news for Swedish exports, writes the National Institute of Economic Research (NIER). In 2016 government consumption also grew very quickly because of a sharp increase in spending on refugee reception. This year and next, this spending will be much lower, and government consumption will not fuel domestic demand to the same extent as in 2016 according to NIER.

Housing investment continued to rise rapidly last year and is now at relatively high levels. Growing labour shortages mean that the increase in housing investment will slow markedly in 2017 and 2018, despite a continued major need for new housing. Gross fixed capital formation will therefore be a much weaker growth driver in the years after 2016.

Employment grew very quickly in the end of 2016 and available data from 2017 show that this trend is ongoing. However, the figures are, according to NIER, probably slightly overestimating employment growth in the immigrant population at the moment as a result of the large inflows of recent immigrants into the labour force.

NIER writes that although labour market has been tightening in recent years, wage growth has not taken off. One reason is that wage formation in Sweden is to some extent dependent on the manufacturing sector's international competitiveness. Relatively low wage growth in the euro area has therefore had a restraining effect on wages in Sweden. Rising employer contributions, low inflation expectations and weak underlying productivity growth have also put a damper on wages. The subdued wage growth is an important reason of holding back inflation in Sweden.

HOUSING AND MORTGAGE MARKETS

Housing completion continue to increase and in 2016 reached around 42,500 dwellings compared to 34,600 dwellings in 2015. The figures are expected to increase further as the housing starts and building permits have continued to increase in 2016 and 2017. Housing starts have increased by 24% in 2016 to around 60,000 dwellings. This is the highest figure since the beginning of the 1990s. The demand for housing is still high and according to the National Board of Housing it will take a couple of more years of construction to fill the lack of housing. Especially in the larger cities there is still a lack of housing. However, the prices are high and new amortisation rules have limited the possibilities for some demographic groups to enter the housing market which might drag the market going forward.

Prices on one-family homes increased by 8,4% during 2016 which is lower than in 2015. The prices for tenant-owned apartments has increased by around 9% in 2016 compared to around 18% in 2015. Compared to the larger cities in Sweden the price developments in the Malmö-region has been higher than in Stockholm and Gothenburg. However, prices in the Malmö-region is in general lower than in Stockholm and Gothenburg. Price increases in less populated areas in Sweden could also be quite different from the development in large- to middle city regions.

In 2017 the price development seems to cool off and especially in the Stockholm region.

MORTGAGE MARKETS

Residential mortgages lending grew by 7.2% in 2016, which is a slower pace compared to 2015 when outstanding residential mortgages grew by 8.1%. The growth rate of residential loans has been increasing since 2012 when residential mortgages increased by 4.5%, but in 2016 the growth rate started to slow down.

Several factors explain the increasing residential lending. One important factor is the lack of housing. The Swedish population is growing in record numbers due to high immigration and relatively high birth rates. The inward migration in Sweden towards the south and larger cities has driven the housing markets in expanding areas. This in combination with a long period of comparably low residential housing construction has created a severe lack of housing and housing imbalances. Another factor is the dysfunctional rental markets in the growth regions due to a general rent control, which results in many years of queuing to get a rental apartment on the first-hand market. If you move to a city in a growth region in Sweden, you normally have to buy an apartment or rent a second-hand apartment to a cost usually far higher than rents on the first-hand market. An additional factor is historically low mortgage interest rates.

The authorities have tried to restrain the mortgage market development with different measures. An LTV-roof of 85% on new mortgage lending has been imposed and risk weights on mortgage lending have been increased. For several 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 above 50 per cent LTV must amortise. Finansinspektionen (the Swedish Financial Services Authority) also plans to sharpen the amortisation rules in 2018.

The variable (3-month) mortgage interest rate levelled out in 2015 and was unchanged at 1.6% in December 2016. The initial fixed mortgage interest rates, 1-5 years, have however continued to decrease further during 2016 to 1.6% per cent from 1.7% in 2015. Initial fixed mortgage interest rates over 5 years have also diminished to 2.4% in the end of 2016 from 2.8% in the end of 2015. Initial fixed mortgage rates have reached record lows during 2016.

Finansinspektionen, writes 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 the Swedish households. Finansinspektionen writes in the latest report that the amortisation on new mortgage loans has increased continuously since 2011. The share of households amortising and the average size of the amortisations increased markedly in 2016 as the new amortisation rules entered into force. The share of households with new loans that are amortising increased to 78% in 2016 from 67% in 2015. The average LTV for new mortgage loans is 64% in 2016, which is lower than in 2015.

MORTGAGE FUNDING

Covered bonds are the most common form of funding used in the Swedish market for funding of mortgages. During 2016 the Swedish stock of covered bonds increased by 4.2% (in SEK) to EUR 222 bn. The Swedish mortgage institutions issued new covered bonds amounting to EUR 52 bn in 2016.

	SWEDEN 2015	SWEDEN 2016	EU 28 2016
Real GDP growth (%) (1)	4.1	3.2	1.9
Unemployment Rate (LSF), annual average (%) (1)	7.4	6.9	8.5
HICP inflation (%) (1)	0.7	1.1	0.3
Outstanding Residential Loans (mn EUR) (2)	374,754	386,504	6,981,540
Outstanding Residential Loans per capita over 18 (EUR) (2)	48,280	49,388	16,838
Outstanding Residential Loans to disposable income ratio (%) (2)	165.5	166.8	n/a
Gross residential lending, annual growth (%) (2)	18.7	-2.3	3.2
Typical mortgage rate, annual average (%) (2)	1.8	1.8	2.6
Owner occupation rate (%) (1)	69.3	66.2	n/a**
Nominal house price growth (%) (2)	10.7	8.4	4.6

* 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 2017, 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 2016 was 64%.
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, UK Finance

MACROECONOMIC OVERVIEW

Economic growth in the UK continues to be strong, as GDP growth was 1.8% in 2016. 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 performed strongly in 2016 as the unemployment rate fell from 5.3% at the end of 2015 to 4.8% by the end of 2016. In level terms, there was a fall of 98,000 unemployed people, bringing the total to 1.59 million. Employment numbers grew by 297,000 over the course of 2016, leading to an employment rate of 74.6% from 74.1% 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 2016, there were 32.2 million people in work in the UK.

Inflation in the first half of 2016 was low, but picked up towards the end of the year, as depreciation in sterling led to increased import costs. The inflation rate (as measured by the Harmonised Consumer Prices Index) was 0.7% in 2016, compared to 0.0% in 2015.

Austerity continues to be a theme of public finances in the UK, though the timeline to balance the books has been extended. At the time of the March 2017 Budget, the Office for Budget Responsibility (OBR) were projecting that the government will reduce its underlying structural borrowing position to just below 2% of GDP by the end of 2019-20. Public sector borrowing is expected to fall from GBP 58.3 bn in 2017-18 to GBP 16.8 bn by 2021-22.

HOUSING AND MORTGAGE MARKETS

MORTGAGE MARKETS

The UK housing market continues to be characterised as dysfunctional and highly diverse. The underlying picture is that housing demand has outstripped new supply for over a decade now, bringing heightened affordability pressures, particularly for first-time buyers. There are large differences across the UK though, 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 171,000 in 2015 – significantly lower than the projected growth in the number of households of around 225,000 households per year. During 2016, new housing supply in England [data not yet available for the UK overall] remained subdued – completions fell by 1% compared to 2015 while new starts increase by 5%. 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 13% from the peak in 2007 following the financial crisis. Prices have since increased and are now 32% higher than the pre-crisis peak. During 2016 there was strong growth, with prices on average 7% higher than in 2015 (as measured by the Office for National Statistics house price index at the mortgage completion stage).

There are significant variations which are hidden by the UK-wide figures. Parts of southern and eastern England have experienced the largest increases – particularly in the east of England, where at the end of 2016, prices were 11% higher than a year earlier. On the other hand, prices in Scotland grew by just 3.5% 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.

MORTGAGE MARKETS

The value of outstanding mortgages in the UK totalled GBP 1,323 bn at the end of 2016, an increase of 3% from GBP 1,288 bn at the end of 2015, while gross mortgage lending totalled GBP 245.1 bn in 2016, up from GBP 221.8 bn in 2015. The growth in total gross mortgage lending was driven largely by lending for remortgaging. There was a 20% increase in remortgage activity (excluding BTL remortgage) by value, to GBP 66.0 bn. Mortgage interest rates in the UK fell in 2016, reaching new historic lows. The average mortgage interest rate on new lending was 2.34% (down from 2.62% in 2015) in 2016. This was driven by improvements in funding conditions, a fall in swap rates, increased competition amongst lenders as they looked to increase their market shares, and monetary policy easing.

Consistent with the increase in house purchase lending, the number of property transactions also increased in 2016 – totalling 1,235,000 in 2016 up marginally from 1,230,000 in 2015, but still about a quarter lower than the level seen before the financial crisis when around 1,600,000 transactions in a year was more typical.

After the EU referendum in June 2016, the Bank of England cut the Base Rate to 0.25% and announced the Term Funding Scheme, as the short to medium term outlook had weakened. The aim was to reinforce the transmission of the Bank Rate cut to households and businesses by providing cost effective sources of funding for lenders.

There have been two notable tax changes recently that have affected the housing market. The first was an additional rate of tax on purchases of second and subsequent properties (BTL and holiday homes are both included). This came into effect in April 2016 and led to a large increase in activity in the month before the tax change was introduced. Since then, house purchase activity in the BTL space has been markedly weaker and looks set to remain that way.

The second tax change was announced in the summer of 2015, but will take effect from April 2017. This affects landlords who pay higher (40%) or additional (45%) rate tax and will see the rate at which they can claim tax relief be reduced to 20% over a four year period. This is a significant change as it fundamentally changes the economics of buy-to-let.

The Prudential Regulation Authority announced minimum expectations of lender's underwriting standards for BTL lending in September 2016. This stated that firms are expected to stress test borrowers at either a 5.5% interest rate, or 2 pps above the mortgage interest rate, whichever is higher.

The performance of the outstanding mortgage book continued to improve during 2016, a trend observed from the end of 2010. Loans with arrears representing more than 2.5% of the outstanding balance fell to 0.85% of all loans outstanding (from 0.91% at the end of 2015). Also showing an improvement, the number of properties taken into possession totalled 7,700 in 2016, down from 10,200 in 2015 and the lowest total since 1982.

MORTGAGE FUNDING

UK lenders continued to experience funding conditions across a variety of markets in 2016 at attractive pricing levels. Retail deposit flows, particularly in the ISA 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 2016, raising funding from a variety of sources across markets and currencies. Spreads and funding levels continue to remain very attractive although non-traditional funding opportunities such as the Term Funding Scheme continue to offer even more attractive terms.

There has been a fall in the supply of asset backed transactions (covered bonds and RMBS) given the introduction of the Term Funding Scheme. The cost of borrowing under the scheme has meant a certain amount of crowding out has occurred as lenders have taken up the option to use the scheme rather than issue into the public markets. This lack of supply of prime residential back bonds particularly in the RMBS space has however provided an opportunity for non-prime issuance and smaller lenders with bespoke specialised portfolios have accessed the RMBS market.

	UK 2015	UK 2016	EU 28 2016
Real GDP growth (%) (1)	2.2	1.8	1.9
Unemployment Rate (LSF), annual average (%) (1)	5.3	4.8	8.5
HICP inflation (%) (1)	0	0.7	0.3
Outstanding Residential Loans (mn EUR) (2)	1,755,387	1,544,729	6,981,540
Outstanding Residential Loans per capita over 18 (EUR) (2)	34,317	29,950	16,838
Outstanding Residential Loans to disposable income ratio (%) (2)	102.2	98.9	n/a
Gross residential lending, annual growth (%) (2)	21.1	-2.1	3.2
Typical mortgage rate, annual average (%) (2)	2.6	2.3	2.6
Owner occupation rate (%) (1)	64.4	63.5	n/a**
Nominal house price growth (%) (2)	6.0	7.4	4.6

* 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 2017, 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** – 92% **Other specialist lenders** – 7% **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:	77%
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.

A – THE MORTGAGE MARKET

1. Total Outstanding Residential Loans

Total Amount , End of the Year, EUR million

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
AUSTRIA	54,828	61,793	65,897	72,061	73,455	80,008	83,960	86,281	83,876	86,657	92,456	96,400
BELGIUM	101,092	114,105	126,383	137,016	151,738	161,723	172,049	183,615	189,484	197,327	207,590	217,126
BULGARIA	n/a	n/a	2,795	3,806	3,798	3,714	3,589	3,573	3,507	3,499	3,522	3,699
CROATIA	3,818	5,201	6,473	7,501	7,663	8,258	8,363	8,293	8,059	7,865	7,734	6,947
CYPRUS	4,131	5,421	6,935	8,501	10,388	11,921	12,545	12,679	11,854	11,655	11,661	11,461
CZECH REPUBLIC	5,754	8,675	12,539	14,786	20,942	24,128	25,556	27,851	27,222	28,732	32,085	34,940
DENMARK	157,106	177,868	195,693	207,267	216,697	224,036	228,743	230,741	231,850	234,518	238,848	243,586
ESTONIA	2,618	4,278	5,626	6,209	6,111	5,973	5,882	5,846	5,896	6,064	6,323	6,661
FINLAND	48,489	55,307	62,172	67,632	71,860	76,747	81,781	86,346	88,313	89,762	91,955	94,056
FRANCE	498,300	572,600	646,500	700,200	730,500	795,200	843,200	870,040	902,640	922,607	958,368	997,807
GERMANY	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	1,279,456	1,326,901
GREECE	45,420	57,145	69,363	77,700	80,559	80,507	78,393	74,634	71,055	69,408	67,593	61,397
HUNGARY	10,565	13,688	17,397	22,346	22,463	24,659	21,950	19,985	18,499	17,146	14,943	14,024
IRELAND	99,416	123,988	140,562	148,803	147,947	103,043	100,588	97,462	94,862	90,593	87,898	86,195
ITALY	217,147	244,314	265,454	264,288	280,337	352,111	367,645	365,588	361,390	359,137	362,332	368,169
LATVIA	2,490	4,639	6,702	7,192	6,870	6,559	5,991	5,334	5,062	4,703	4,503	4,412
LITHUANIA	2,268	2,997	4,849	6,055	6,027	5,983	5,866	5,811	5,836	5,996	6,168	6,584
LUXEMBOURG	10,586	12,018	14,676	15,940	17,077	18,591	20,255	21,715	23,389	25,038	26,599	28,314
MALTA	1,521	1,770	2,015	2,220	2,458	2,666	2,893	3,088	3,278	3,592	3,905	4,204
NETHERLANDS	510,871	548,141	584,967	615,125	638,045	655,737	667,331	671,166	654,023	651,607	656,015	664,416
POLAND	13,167	20,480	32,733	46,573	52,545	67,526	71,883	79,434	80,812	82,555	90,901	92,015
PORTUGAL	79,452	91,896	101,094	105,209	110,685	114,515	113,916	110,520	106,585	102,469	98,516	95,377
ROMANIA	766	2,176	4,203	5,270	5,733	6,763	7,596	8,767	9,257	10,105	11,522	12,893
SLOVAKIA	3,078	5,209	6,773	8,536	9,469	10,849	12,320	13,701	15,304	17,364	19,714	22,508
SLOVENIA	1,368	1,956	2,670	3,398	3,933	4,844	5,164	5,259	5,307	5,348	5,525	5,717
SPAIN	475,571	571,803	646,676	674,434	678,872	680,208	666,946	641,510	612,819	586,609	562,828	544,499
SWEDEN	176,551	205,210	217,881	206,210	238,424	292,263	308,498	334,922	340,379	339,152	374,754	386,504
UK	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	1,755,387	1,544,729
EURO AREA 19*	3,318,966	3,660,217	3,910,207	4,059,868	4,167,272	4,313,397	4,404,641	4,439,637	4,443,959	4,467,350	4,543,237	4,635,620
EU 28	5,065,985	5,663,584	5,981,749	5,824,789	6,084,301	6,363,695	6,526,499	6,660,279	6,652,803	6,809,371	7,079,101	6,981,540
AUSTRALIA	234,621	253,447	283,394	267,804	401,294	536,739	596,014	621,219	533,808	563,057	625,225	694,017
BRAZIL	n/a	n/a	16,790	18,393	33,567	59,210	78,394	94,454	103,519	134,023	115,872	155,791
ICELAND	9,831	9,287	11,253	6,743	7,055	8,977	8,370	8,140	8,937	9,165	9,694	11,851
JAPAN	1,329,112	1,174,719	1,130,987	1,477,915	1,393,037	1,705,030	1,861,312	1,652,913	1,314,053	1,319,365	1,482,729	1,603,646
NORWAY	135,541	151,401	175,091	157,299	187,720	209,586	227,272	260,725	245,449	241,128	242,633	274,257
RUSSIA	1,558	6,744	16,985	25,927	23,425	27,667	35,412	49,522	58,442	48,777	49,362	69,878
TURKEY	7,440	11,739	17,500	16,431	19,513	28,429	29,989	36,146	37,048	44,270	45,096	44,167
USA	8,508,858	8,473,576	8,114,598	8,622,907	8,185,478	7,822,706	7,888,477	7,561,392	7,215,575	8,186,393	9,232,847	9,754,767

Sources:
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:
- Austria
- France
- Ireland
- Malta
- Netherlands
- 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 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.

* "euro area" = AT, BE, CY, DE, EE, EL, ES, FI, FR, IE, IT, LT, LU, LV, MT, NL, PT, SI, SK.

2. Change in Outstanding Residential Loans

End of period, EUR million

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
AUSTRIA	6,750	6,965	4,104	6,164	1,394	6,553	3,952	2,321	-2,405	2,781	5,799	3,944
BELGIUM	11,679	13,013	12,277	10,634	14,722	9,985	10,326	11,566	5,869	7,843	10,263	9,536
BULGARIA	n/a	n/a	n/a	1,011	-8	-85	-125	-16	-66	-8	23	177
CROATIA	978	1,382	1,272	1,028	162	595	105	-70	-234	-194	-130	-787
CYPRUS	2,644	1,291	1,514	1,566	1,886	1,533	624	134	-825	-199	6	-200
CZECH REPUBLIC	1,964	2,920	3,865	2,246	6,156	3,186	1,428	2,296	-630	1,510	3,353	2,855
DENMARK	22,333	20,761	17,825	11,574	9,430	7,339	4,707	1,998	1,110	2,668	4,331	4,737
ESTONIA	1,124	1,660	1,348	584	-98	-138	-91	-36	51	168	259	338
FINLAND	6,947	6,818	6,865	5,460	4,228	4,887	5,034	4,565	1,967	1,449	2,193	2,101
FRANCE	64,800	74,300	73,900	53,700	30,300	64,700	48,000	26,840	32,600	19,967	35,761	39,439
GERMANY	5,562	21,246	-28,092	-10,338	1,565	5,226	11,588	21,070	23,969	28,588	42,046	47,445
GREECE	11,368	11,725	12,218	8,337	2,859	-52	-2,114	-3,759	-3,579	-1,646	-1,815	-6,196
HUNGARY	2,799	3,124	3,709	4,948	117	2,196	-2,708	-1,965	-1,486	-1,353	-2,203	-919
IRELAND*	21,801	24,572	16,574	8,241	-856	-44,904	-2,455	-3,126	-2,600	-4,269	-2,695	-1,703
ITALY	32,195	27,167	21,140	-1,166	16,049	71,775	15,534	-2,057	-4,198	-2,253	3,195	5,837
LATVIA	1,177	2,150	2,063	490	-321	-312	-568	-657	-272	-359	-200	-91
LITHUANIA	1,010	729	1,852	1,206	-29	-44	-117	-55	25	160	172	416
LUXEMBOURG	1,251	1,432	2,658	1,264	1,137	1,514	1,664	1,460	1,674	1,649	1,561	1,715
MALTA	266	249	245	205	238	208	227	195	190	314	313	299
NETHERLANDS	37,844	37,270	36,826	30,158	22,920	17,692	11,594	3,835	-17,143	-2,416	4,408	8,401
POLAND	4,401	7,312	12,253	13,840	5,972	14,981	4,357	7,551	1,378	1,743	8,346	1,114
PORTUGAL	8,351	12,444	9,198	4,115	5,476	3,830	-599	-3,396	-3,935	-4,116	-3,953	-3,139
ROMANIA	480	1,410	2,027	1,068	463	1,029	833	1,171	490	848	1,417	1,371
SLOVAKIA	882	2,131	1,564	1,763	933	1,380	1,471	1,381	1,603	2,060	2,350	2,794
SLOVENIA	568	588	714	728	535	911	320	95	48	41	177	192
SPAIN	90,940	96,232	74,873	27,757	4,438	1,337	-13,262	-25,436	-28,691	-26,210	-23,781	-18,329
SWEDEN	12,838	28,659	12,671	-11,671	32,214	53,838	16,236	26,424	5,457	-1,227	35,602	11,750
UK	158,993	190,049	9,906	-331,872	97,630	50,234	46,844	61,450	-17,842	129,031	142,933	-210,658
EURO AREA 19	306,147	341,251	249,990	149,660	107,405	146,125	91,244	34,996	4,323	23,391	75,886	92,383
EU 28	511,942	597,599	318,165	-156,960	259,512	279,395	162,804	133,780	-7,476	156,568	269,730	-97,561
AUSTRALIA	42,680	18,826	29,947	-15,590	133,490	135,446	59,274	25,205	-87,411	29,249	62,168	68,792
ICELAND	2,911	-544	1,966	-4,510	312	1,922	-607	-230	797	228	529	2,157
JAPAN	22,367	-154,392	-43,732	346,928	-84,878	311,993	156,282	-208,399	-338,860	5,312	163,364	120,917
NORWAY	22,452	15,861	23,690	-17,792	30,421	21,866	17,686	33,453	-15,275	-4,322	1,506	31,624
RUSSIA	n/a	5,187	10,241	8,942	-2,501	4,242	7,745	14,110	8,920	-9,665	585	20,516
TURKEY	6,337	4,299	5,762	-1,069	3,082	8,916	1,560	6,157	902	7,222	827	-930
USA	2,002,434	-35,282	-358,978	508,309	-437,429	-362,772	65,771	-327,085	-345,816	970,818	1,046,453	521,921

Sources:

European Mortgage Federation National Experts, European Central Bank, 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

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
AUSTRIA	8,861	9,467	10,765	11,130	11,761	12,941	14,501	15,441	15,874	16,877	21,166	20,363
BELGIUM	25,198	24,323	22,825	21,531	22,076	26,768	28,074	25,994	25,077	29,441	35,912	36,557
BULGARIA	n/a	n/a	1,783	1,648	617	669	656	599	635	697	973	1,157
CYPRUS	n/a	n/a	n/a	n/a	2,098	3,017	1,907	1,518	1,399	525	644	866
CZECH REPUBLIC	2,609	4,094	5,395	4,935	2,689	3,216	4,757	4,566	5,453	7,081	8,646	11,109
DENMARK	66,414	42,049	35,796	31,340	44,593	41,386	24,095	43,199	24,700	35,303	50,700	40,526
ESTONIA	1,465	2,339	2,136	1,433	446	419	490	566	686	819	942	1,038
FINLAND	25,957	27,000	28,931	26,669	19,739	20,972	22,537	21,400	17,514	17,540	33,307	29,511
FRANCE	129,014	150,142	154,887	128,600	109,600	138,437	145,546	117,093	109,954	111,170	127,776	140,732
GERMANY	123,100	133,600	132,000	132,800	131,300	142,700	150,600	162,900	170,100	177,100	208,600	209,400
GREECE	13,610	15,444	15,199	12,435	7,966	n/a	n/a	n/a	n/a	n/a	447	471
HUNGARY	2,931	4,197	5,787	6,240	1,907	1,398	1,294	1,214	623	885	1,343	1,688
IRELAND	34,114	39,872	33,808	23,049	8,076	4,746	2,463	2,636	2,495	3,855	4,848	5,656
ITALY	72,678	82,148	83,604	74,102	64,021	67,800	59,196	32,683	28,904	34,861	66,058	83,468
LATVIA	n/a	n/a	n/a	n/a	n/a	119	160	176	221	247	271	363
LITHUANIA	865	1,171	1,852	1,808	1,050	706	876	856	856	876	1,050	1,218
LUXEMBOURG	4,004	4,374	4,669	3,979	4,456	5,095	5,065	5,523	4,817	5,694	6,347	7,134
MALTA	226	266	245	205	238	210	227	n/a	n/a	n/a	n/a	n/a
NETHERLANDS	102,793	106,661	82,711	73,197	53,107	63,500	73,315	54,580	53,256	68,064	109,462	124,306
POLAND	n/a	n/a	n/a	n/a	n/a	2,666	n/a	6,646	7,716	8,003	9,850	9,389
PORTUGAL	17,578	18,391	19,630	13,375	9,330	10,107	4,853	1,935	2,049	2,313	4,013	5,790
ROMANIA	2,119	3,648	2,256	7,827	921	1,458	1,472	1,455	1,521	1,542	2,516	2,470
SLOVAKIA	n/a	n/a	n/a	n/a	2,332	3,329	3,922	3,803	4,873	5,840	6,362	9,865
SLOVENIA	n/a	n/a	n/a	672	1,456	1,213	928	705	597	633	886	1,059
SPAIN	154,335	170,297	145,294	87,074	73,155	69,479	37,448	32,279	21,857	26,800	35,721	37,492
SWEDEN	43,885	41,290	43,895	33,776	39,909	45,077	38,887	40,616	46,498	51,168	60,761	59,341
UK	414,525	500,100	521,381	311,202	157,779	155,981	159,303	178,217	209,257	252,301	305,547	299,143
EURO AREA 19	713,572	785,230	738,311	611,854	519,871	568,330	549,973	478,569	459,130	502,130	663,812	715,288
EU 28	1,246,281	1,380,874	1,354,849	1,009,026	770,622	823,409	782,571	756,599	756,932	859,633	1,104,149	1,140,113
AUSTRALIA	88,714	97,128	108,455	88,274	104,737	108,197	117,497	131,817	132,369	135,060	156,230	161,756
BRAZIL	3,367	5,938	9,391	15,076	17,806	34,901	48,575	47,065	52,123	49,897	34,807	29,956
ICELAND	n/a	n/a	17,655	14,701	11,475	11,866	11,612	11,847	11,823	12,293	12,789	14,327
JAPAN	173,149	145,129	121,445	129,575	148,236	169,821	180,760	197,864	159,636	137,190	149,109	204,037
RUSSIA	1,601	7,726	15,891	18,006	3,455	9,439	17,536	25,847	31,980	34,623	17,065	19,871
TURKEY	7,732	8,626	8,696	8,057	9,811	15,939	12,728	12,305	19,893	12,566	15,464	18,134
USA	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	1,865,571

Sources:
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:
- Italy
- Greece

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 29 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 Belgium the figure also includes external remortgaging
- 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

4. Representative Interest Rates on New Residential Loans

Annual average based on monthly figures, %

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	TYPE
AUSTRIA	3.58	3.80	4.79	5.32	3.71	2.71	2.86	2.71	2.39	2.29	2.02	1.92	1
BELGIUM	3.65	4.08	4.71	5.09	4.25	3.59	3.81	3.63	3.45	3.17	2.49	2.11	1
BULGARIA	n/a	n/a	8.37	8.48	8.83	8.66	8.59	8.35	7.97	7.66	7.03	6.16	1
CROATIA	5.20	4.81	4.94	5.78	6.36	6.32	5.48	5.45	5.04	5.05	5.07	4.78	1
CYPRUS	5.90	5.45	5.61	6.47	5.01	5.16	5.73	5.32	4.67	4.36	3.28	3.03	2
CZECH REPUBLIC	3.96	4.18	4.69	5.61	5.61	4.90	4.04	3.52	3.26	2.56	2.42	2.22	1
DENMARK	3.32	4.28	5.36	5.77	3.21	2.17	2.41	1.41	1.20	1.29	1.09	1.17	1
ESTONIA	3.28	4.28	5.49	5.82	3.87	3.50	3.42	2.86	2.54	2.43	2.25	2.28	1
FINLAND	2.99	3.72	4.71	5.01	2.45	1.98	2.50	1.97	1.98	1.80	1.35	1.16	1
FRANCE	3.49	3.71	4.26	4.84	4.09	3.42	3.80	3.56	3.01	2.72	2.12	1.62	1
GERMANY	4.25	4.61	5.09	5.22	4.26	3.69	3.84	3.06	2.76	2.49	1.95	1.76	4
GREECE	4.15	4.30	4.45	4.81	3.94	3.68	4.33	3.26	2.82	2.94	2.62	2.74	2
HUNGARY	13.15	9.82	9.98	10.91	11.55	10.88	10.46	10.51	9.85	8.48	6.21	5.32	2
IRELAND	3.42	4.06	4.93	5.17	3.14	3.13	3.46	3.28	3.44	3.42	3.49	3.26	1
ITALY	3.73	4.87	5.72	5.09	2.88	2.97	4.03	3.69	3.50	2.83	2.50	2.02	1
LATVIA	4.53	4.96	6.10	7.02	4.95	4.09	4.12	3.66	3.53	3.44	3.43	3.21	1
LITHUANIA	3.32	4.06	5.40	5.83	4.17	3.70	3.71	2.97	2.39	2.15	1.88	1.95	1
LUXEMBOURG	3.48	3.95	4.74	4.90	2.49	2.16	2.40	2.23	2.13	2.03	1.86	1.68	2
MALTA	n/a	n/a	n/a	3.84	3.51	3.43	3.38	3.40	3.03	2.85	2.99	2.84	1
NETHERLANDS	3.76	4.38	4.97	5.34	4.86	4.52	4.55	4.27	3.78	3.37	2.93	2.59	1
POLAND	6.98	5.74	6.09	8.05	7.23	6.48	6.70	6.95	5.14	4.10	4.40	4.40	1
PORTUGAL	3.34	3.98	4.78	5.42	2.69	2.43	3.74	3.89	3.26	3.21	2.38	1.90	2
ROMANIA	n/a	n/a	6.60	6.67	7.16	5.31	5.84	5.03	4.73	5.06	3.99	3.46	2
SLOVAKIA	n/a	n/a	n/a	6.04	5.90	5.24	4.84	4.74	4.10	3.38	2.70	2.03	1
SLOVENIA	4.99	5.83	6.50	6.73	4.45	3.34	3.77	3.37	3.20	3.21	2.53	2.33	1
SPAIN	3.22	4.05	5.10	5.67	3.25	2.53	3.37	3.30	3.04	2.96	2.24	2.01	2
SWEDEN	2.50	3.62	4.63	5.31	2.15	2.51	4.03	3.68	2.96	2.45	1.84	1.76	2
UK	5.17	5.05	5.69	5.75	4.21	3.81	3.62	3.69	3.24	3.12	2.62	2.34	1
AUSTRALIA	7.26	7.61	8.20	8.91	6.02	7.28	7.74	6.98	6.18	5.95	5.58	5.42	2
BRAZIL	n/a	n/a	n/a	n/a	n/a	n/a	10.30	8.50	8.10	9.30	10.10	10.80	6
ICELAND	4.17	4.69	5.24	6.03	5.67	5.14	4.82	4.24	3.92	3.86	3.98	3.87	6
JAPAN	2.38	2.83	2.82	2.89	2.74	2.36	2.32	1.95	1.87	1.62	1.52	1.06	6
NORWAY	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	3.98	3.78	2.86	2.42	6
RUSSIA	14.90	13.70	12.60	12.90	14.30	13.10	11.90	12.29	12.44	12.45	13.35	12.48	1
TURKEY	15.10	21.53	16.21	21.78	12.21	9.53	14.35	9.90	10.73	11.03	14.07	11.43	1
USA	5.86	6.41	6.34	6.04	5.04	4.69	4.46	3.66	3.98	4.17	3.85	3.65	5

Sources:
European Mortgage Federation National Experts, European Central Bank, Japan Housing Finance Agency, National Central Banks, Federal Reserve

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:
- Austria
- Bulgaria
- Sweden

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

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
CZECH REPUBLIC	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	41,833	40,703	47,913	62,866
DENMARK	n/a	n/a	n/a	119,073	122,730	126,849	129,030	131,649	130,288	132,820	138,767	142,238
FINLAND	73,326	79,838	85,377	87,391	90,626	93,186	93,990	94,502	94,416	94,171	95,735	97,215
GERMANY	n/a	n/a	n/a	n/a	175,000	n/a	n/a	185,000	n/a	n/a	212,000	n/a
HUNGARY	n/a	n/a	n/a	n/a	n/a	n/a	16,358	15,108	13,945	15,322	17,032	18,944
LATVIA	n/a	n/a	n/a	n/a	n/a	39,041	30,709	25,445	27,438	30,315	31,390	25,206
POLAND	27,231	35,714	49,499	58,421	46,781	51,557	50,445	47,493	47,604	49,364	50,633	50,562
ROMANIA	n/a	n/a	n/a	n/a	39,606	38,954	36,880	29,153	24,209	33,306	34,418	35,632
SLOVAKIA	35,869	42,705	47,937	51,921	53,195	52,401	55,141	53,692	59,267	62,091	59,035	n/a
SPAIN	124,797	140,324	148,865	139,655	117,804	116,934	111,922	103,438	100,011	102,253	106,736	109,766
UNITED KINGDOM	160,715	174,556	185,571	152,012	126,266	139,886	138,268	151,226	150,131	169,328	198,942	183,097
AUSTRALIA	132,036	134,619	148,387	147,680	159,145	210,965	224,878	240,677	220,343	220,594	239,968	244,373
BRAZIL	8,356	12,662	18,210	26,727	28,583	40,662	51,322	51,029	52,268	50,223	38,617	36,607
ICELAND	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	72,842	72,003	52,278	n/a
JAPAN	219,583	203,191	186,853	204,723	239,527	269,959	286,139	312,713	244,794	231,274	253,220	290,624
NORWAY	n/a	n/a	n/a	n/a	n/a	n/a	n/a	131,236	n/a	n/a	116,653	n/a
RUSSIA	n/a	n/a	n/a	51,520	26,561	31,315	33,492	37,367	38,761	34,185	24,396	23,202
TURKEY	23,393	24,899	25,247	25,695	20,281	26,643	23,310	23,932	23,782	21,509	22,530	22,476

Sources:
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 29 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

The series has been revised for at least two years in:

- Spain

6. Total Outstanding Non-Residential Mortgage Loans

Total Amount, End of the Year, EUR million

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
CZECH REPUBLIC	6,331	8,269	11,275	13,682	12,099	12,356	12,010	12,023	12,035	13,544	14,435	16,446
DENMARK	88,228	95,633	106,379	118,637	127,141	130,405	133,754	138,160	145,158	151,264	143,427	148,532
ESTONIA	1,812	3,109	3,943	4,111	3,937	3,658	3,395	3,371	3,223	3,250	3,339	3,509
FINLAND	4,117	6,049	7,811	11,148	14,027	15,441	16,473	16,854	18,174	19,501	20,713	22,117
GERMANY	258,569	256,332	260,008	254,862	255,721	251,450	259,134	254,014	250,631	247,345	250,310	249,295
GREECE	4,190	4,194	4,774	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
HUNGARY	2,949	3,609	4,744	7,401	7,838	8,380	7,051	6,805	6,112	n/a	n/a	n/a
IRELAND	11,332	15,437	17,828	16,193	15,147	32,734	29,979	29,269	27,710	25,108	22,737	20,493
ITALY	53,888	63,752	69,150	66,240	71,311	74,303	73,234	93,216	87,260	79,915	87,372	81,591
LATVIA	1,504	2,917	3,770	4,600	4,370	3,658	3,144	2,582	2,298	2,034	1,898	2,255
NETHERLANDS	24,317	25,065	23,440	23,772	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
POLAND	4,322	5,627	9,765	11,582	12,192	12,125	11,722	13,693	13,116	13,055	13,952	13,616
ROMANIA	n/a	n/a	n/a	17,935	17,742	19,264	20,140	19,966	19,244	17,763	16,887	15,409
SPAIN	263,763	339,620	400,765	414,512	420,669	396,719	339,739	235,151	159,599	134,581	129,690	115,889
AUSTRALIA	214,867	233,954	257,177	219,616	274,616	351,844	375,709	398,830	355,417	422,679	426,910	445,847
BRAZIL	n/a	n/a	904	1,112	3,013	3,367	13,329	15,885	16,508	20,555	16,862	20,783
ICELAND	16,846	18,153	22,416	23,042	21,925	22,958	13,660	11,430	11,332	11,092	n/a	n/a
JAPAN	n/a	n/a	n/a	n/a	188,721	239,740	259,354	230,744	182,503	183,373	208,267	229,195
NORWAY	n/a	n/a	n/a	n/a	9,100	11,943	12,391	14,195	13,626	13,550	13,027	13,752
RUSSIA	2,149	3,353	4,066	4,841	3,936	4,068	3,492	3,119	2,573	1,791	819	698
USA	1,622,362	1,662,263	1,668,705	1,950,780	1,827,364	2,527,915	2,544,633	2,496,135	2,445,870	2,916,811	3,478,185	3,831,895

Sources:
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:
- Finland
- Latvia
- Australia

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

%

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
AUSTRIA	21.7	23.2	23.3	24.7	25.7	27.2	27.2	27.2	26.0	26.2	27.2	27.6
BELGIUM	32.5	34.9	36.7	38.7	43.5	44.3	45.4	47.4	48.4	49.2	50.6	51.5
BULGARIA	n/a	n/a	8.6	10.2	10.2	9.7	8.7	8.5	8.3	8.2	7.8	7.8
CROATIA	10.5	12.9	14.7	15.6	17.0	18.3	18.7	18.9	18.5	18.3	17.6	15.2
CYPRUS	27.5	33.3	39.4	44.7	55.6	61.8	63.6	65.1	65.4	66.3	66.1	64.0
CZECH REPUBLIC	5.3	7.0	9.1	9.2	14.1	15.4	15.6	17.3	17.3	18.3	19.2	20.0
DENMARK	73.8	78.9	83.9	85.8	93.7	92.1	92.3	90.6	89.6	88.4	87.9	88.0
ESTONIA	23.2	31.6	34.6	37.6	43.2	40.6	35.3	32.6	31.2	30.7	31.2	31.8
FINLAND	29.5	32.0	33.3	34.9	39.7	41.0	41.5	43.2	43.4	43.7	43.9	43.9
FRANCE	28.1	30.9	33.2	35.1	37.7	39.8	40.9	41.7	42.7	43.0	43.7	44.8
GERMANY	50.5	49.5	46.0	44.7	46.6	44.7	43.1	43.0	42.8	42.3	42.2	42.3
GREECE	22.8	26.2	29.8	32.1	33.9	35.6	37.9	39.0	39.3	39.0	38.5	34.9
HUNGARY	11.7	15.0	17.1	20.8	23.9	25.1	21.8	20.2	18.2	16.3	13.6	12.5
IRELAND	58.4	67.0	71.2	79.3	87.2	61.7	58.1	55.5	52.6	46.9	34.4	32.4
ITALY	14.6	15.8	16.5	16.2	17.8	21.9	22.5	22.7	22.5	22.1	22.0	22.0
LATVIA	18.1	26.9	29.6	29.5	36.6	36.9	29.7	24.2	22.2	19.9	18.5	17.6
LITHUANIA	10.8	12.4	16.7	18.5	22.4	21.3	18.8	17.4	16.7	16.4	16.5	17.0
LUXEMBOURG	35.3	35.5	39.5	41.8	46.2	46.3	46.9	49.2	50.2	50.1	50.8	52.2
MALTA	29.6	32.9	35.0	36.2	40.0	40.4	42.3	43.2	43.0	42.5	42.1	42.5
NETHERLANDS	93.6	94.6	95.4	96.2	103.3	103.8	103.8	104.0	100.2	98.3	97.0	95.3
POLAND	5.3	7.5	10.4	12.7	16.6	18.7	18.9	20.4	20.5	20.1	21.1	21.7
PORTUGAL	50.1	55.3	57.6	58.8	63.1	63.6	64.7	65.6	62.6	59.2	54.9	51.6
ROMANIA	1.0	2.2	3.4	3.7	4.8	5.3	5.7	6.6	6.4	6.7	7.2	7.6
SLOVAKIA	7.8	11.4	12.0	12.9	14.8	16.1	17.4	18.8	20.6	22.9	25.1	27.8
SLOVENIA	4.7	6.2	7.6	9.0	10.9	13.4	14.0	14.6	14.8	14.3	14.3	14.4
SPAIN	51.1	56.7	59.8	60.4	62.9	62.9	62.3	61.7	59.8	56.6	52.3	48.9
SWEDEN	56.4	61.3	61.1	58.5	77.0	79.2	76.2	79.1	78.1	78.4	83.8	83.6
UK	68.3	73.4	70.5	63.4	78.7	76.0	76.7	72.7	72.4	71.3	68.0	65.3
EURO AREA 19	39.2	41.1	41.6	42.1	44.9	45.2	44.9	45.1	44.7	44.0	43.4	43.1
EU 28	43.7	46.2	46.1	44.6	49.5	49.6	49.5	49.5	49.1	48.6	48.1	47.1
AUSTRALIA	39.9	44.6	48.9	35.3	62.4	62.8	55.5	53.3	47.0	46.8	50.6	60.7
ICELAND	73.2	68.1	72.3	62.5	76.5	89.7	79.4	73.6	76.7	70.8	64.1	65.4
JAPAN	33.0	34.1	36.9	40.8	38.4	40.0	39.1	35.2	35.1	33.0	36.8	34.2
NORWAY	54.6	55.0	59.7	49.7	67.4	64.8	63.4	65.7	62.4	64.1	69.7	81.9
RUSSIA	0.2	0.9	1.9	2.2	2.8	2.4	2.3	3.0	3.6	2.9	3.9	5.7
TURKEY	1.8	2.8	3.8	3.0	4.4	4.9	4.7	5.5	5.4	5.8	5.7	5.4
USA	76.7	80.5	82.5	81.5	81.8	69.9	65.8	61.8	59.6	57.1	55.7	55.4

Sources:
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
- 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

%

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
AUSTRIA	34.0	36.6	37.3	39.6	40.3	43.6	44.4	44.0	42.6	43.1	45.2	45.4
BELGIUM	55.2	59.1	62.3	63.9	69.6	73.7	76.9	80.5	82.3	84.9	88.4	89.9
BULGARIA	n/a	n/a	15.2	17.1	16.7	16.2	14.7	14.4	13.8	14.9	14.5	14.9
CROATIA	16.4	20.8	24.4	25.7	26.3	28.0	28.2	28.2	28.2	27.5	20.1	18.0
CYPRUS	40.3	48.7	58.5	64.4	80.9	90.0	92.7	95.2	94.2	98.7	101.3	96.7
CZECH REPUBLIC	9.8	13.1	17.5	17.3	25.2	27.6	28.4	31.4	31.6	34.2	36.6	38.0
DENMARK	158.3	171.3	185.5	192.0	196.2	191.8	189.4	186.9	184.6	182.7	179.6	178.1
ESTONIA	44.1	61.6	67.7	66.0	71.5	70.3	63.6	59.6	58.2	55.8	55.8	55.6
FINLAND	54.7	59.8	63.6	65.4	67.7	69.5	71.0	72.8	72.4	73.1	73.9	74.6
FRANCE	43.7	48.1	51.6	54.2	56.4	59.9	62.3	63.9	66.0	66.9	68.5	69.9
GERMANY	74.5	74.2	71.1	68.7	69.4	68.0	66.7	66.1	66.3	66.3	66.5	66.9
GREECE	32.8	37.8	43.0	45.7	46.5	50.4	53.7	55.9	58.0	57.7	58.9	53.3
HUNGARY	19.7	25.8	30.2	37.5	42.2	45.0	37.7	34.6	31.7	29.1	25.1	22.4
IRELAND	124.9	144.6	151.2	151.1	162.2	117.8	118.4	111.3	108.9	100.2	92.3	87.1
ITALY	21.1	22.9	24.0	23.5	25.5	32.1	32.6	33.4	32.9	32.5	32.5	32.6
LATVIA	28.8	42.1	49.5	45.2	53.1	55.8	50.2	41.5	37.8	34.2	31.4	28.8
LITHUANIA	16.1	18.5	27.7	29.0	31.4	30.9	28.8	27.6	26.3	26.5	26.8	27.4
LUXEMBOURG	n/a	95.2	109.0	108.9	113.9	118.1	123.9	127.4	n/a	n/a	n/a	n/a
NETHERLANDS	183.6	191.1	195.5	202.5	210.0	214.9	213.8	214.1	206.7	205.5	200.5	198.6
POLAND	8.3	11.7	16.9	20.6	26.3	29.8	31.1	33.4	33.5	33.2	35.8	35.8
PORTUGAL	70.9	79.1	83.0	83.0	87.7	88.3	91.1	91.7	88.6	85.3	80.0	75.1
ROMANIA	1.5	3.7	5.5	6.1	7.8	8.8	9.9	11.9	9.1	9.3	9.8	10.4
SLOVAKIA	13.1	19.7	20.7	22.0	23.2	26.2	29.2	31.6	34.8	38.5	42.1	46.8
SLOVENIA	7.5	10.1	12.7	14.9	17.1	20.9	21.9	22.9	23.3	23.1	23.5	23.8
SPAIN	80.4	91.4	99.4	98.3	97.1	98.8	96.1	95.7	92.2	87.6	82.5	77.8
SWEDEN	120.9	132.7	131.5	122.2	149.2	159.4	150.8	151.4	149.3	150.7	165.5	166.8
UK	104.9	114.0	109.8	98.0	114.6	111.0	114.4	107.1	108.5	108.4	102.2	98.9
EURO AREA 19	60.7	64.4	66.1	66.5	68.5	70.3	70.5	70.9	70.5	70.1	69.9	n/a
EU 28	68.5	73.3	74.0	71.3	76.0	77.6	78.1	78.0	77.7	78.0	77.6	n/a
NORWAY	116.1	135.9	145.5	125.4	150.4	147.4	147.7	154.0	142.9	142.8	143.2	159.4
USA	110.0	103.6	103.7	113.0	102.1	90.2	91.0	76.6	75.4	81.4	73.9	74.6

Sources:
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

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
AUSTRIA	8,323	9,296	9,851	10,707	10,845	11,749	12,255	12,506	12,063	12,354	13,048	13,427
BELGIUM	12,215	13,695	15,051	16,172	17,752	18,749	19,648	20,787	21,322	22,159	23,187	24,091
BULGARIA	n/a	n/a	444	607	608	597	581	581	574	577	585	620
CROATIA	1,101	1,495	1,855	2,146	2,190	2,361	2,397	2,381	2,318	2,266	2,234	2,017
CYPRUS	7,471	9,595	11,959	14,205	16,781	18,604	18,954	18,518	17,158	16,962	17,205	16,870
CZECH REPUBLIC	694	1,040	1,494	1,741	2,442	2,800	2,958	3,213	3,137	3,317	3,703	4,036
DENMARK	37,354	42,180	46,228	48,651	50,462	51,869	52,589	52,702	52,546	52,703	53,198	53,656
ESTONIA	2,408	3,937	5,179	5,710	5,614	5,490	5,418	5,406	5,477	5,656	5,909	6,231
FINLAND	11,738	13,321	14,884	16,086	16,969	18,003	19,059	19,990	20,311	20,519	20,917	21,307
FRANCE	10,259	11,683	13,091	14,083	14,602	15,812	16,677	17,132	17,691	17,980	18,538	19,214
GERMANY	17,180	17,440	16,978	16,783	16,788	16,865	17,379	17,636	17,926	18,280	18,792	19,272
GREECE	5,081	6,358	7,675	8,559	8,833	8,796	8,553	8,173	7,840	7,710	7,545	6,893
HUNGARY	1,297	1,679	2,131	2,737	2,747	3,012	2,681	2,453	2,269	2,106	1,837	1,728
IRELAND	32,204	39,076	42,763	44,098	43,317	30,081	29,324	28,474	27,787	26,530	25,665	24,548
ITALY	4,524	5,076	5,499	5,433	5,727	7,168	7,454	7,401	7,277	7,094	7,147	7,268
LATVIA	1,379	2,577	3,731	4,014	3,872	3,758	3,494	3,150	3,019	2,841	2,750	2,729
LITHUANIA	863	1,154	1,878	2,359	2,355	2,356	2,368	2,375	2,404	2,487	2,573	2,778
LUXEMBOURG	29,461	32,851	39,460	42,102	44,094	47,089	50,225	52,227	54,839	57,208	59,127	61,324
MALTA	4,840	5,563	6,275	6,820	7,445	7,964	8,578	9,061	9,495	10,271	11,035	11,713
NETHERLANDS	40,201	42,983	45,724	47,835	49,241	50,208	50,733	50,679	49,115	48,676	48,696	48,989
POLAND	438	676	1,074	1,521	1,707	2,195	2,328	2,564	2,602	2,656	2,921	2,957
PORTUGAL	9,380	10,817	11,854	12,289	12,892	13,292	13,180	12,791	12,382	11,951	11,523	11,169
ROMANIA	46	130	252	320	347	412	465	539	570	624	714	804
SLOVAKIA	731	1,229	1,588	1,988	2,192	2,498	2,824	3,124	3,477	3,937	4,460	5,085
SLOVENIA	836	1,186	1,607	2,041	2,333	2,851	3,039	3,089	3,117	3,140	3,244	3,359
SPAIN	13,329	15,761	17,519	17,922	17,841	17,796	17,388	16,680	15,977	15,371	14,771	14,292
SWEDEN	24,964	28,848	30,348	28,438	32,520	39,391	41,152	44,281	44,624	44,089	48,280	49,388
UK	29,344	33,076	32,979	25,794	27,569	28,347	29,025	30,019	29,467	31,801	34,317	29,950
EURO AREA 19	12,538	13,736	14,579	15,024	15,335	15,817	16,179	16,258	16,230	16,234	16,453	16,714
EU 28	12,797	14,212	14,920	14,434	14,990	15,625	16,020	16,296	16,230	16,541	17,138	16,838
ICELAND	46,672	42,910	50,259	29,266	30,171	38,699	35,866	34,653	37,672	38,044	39,639	47,726
NORWAY	39,132	43,363	49,636	43,978	51,677	56,896	60,768	68,575	63,540	61,553	61,051	68,284
RUSSIA	n/a	59	147	224	202	239	304	n/a	n/a	n/a	n/a	n/a
TURKEY	167	259	378	349	409	584	602	712	717	842	921	1,280
USA	38,329	37,724	35,714	37,493	35,186	33,256	33,172	31,454	29,714	33,372	37,263	39,104

Sources:
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:
- Czech Republic
- Denmark
- Finland
- Greece
- Ireland
- UK
- 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

%

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
AUSTRIA	n/a	n/a	59.2	57.9	57.6	57.4	52.4	57.5	57.3	57.2	55.7	55.0
BELGIUM	72.2	73.7	72.9	73.1	72.7	71.6	71.8	72.4	72.3	72.0	71.4	71.3
BULGARIA	85.4	85.4	87.6	87.1	86.8	86.9	87.2	87.4	85.7	84.3	82.3	82.3
CROATIA	n/a	n/a	n/a	n/a	n/a	88.2	90.1	89.6	88.5	89.7	90.3	90.1
CYPRUS	n/a	n/a	74.1	72.3	74.1	73.1	73.5	73.2	74.0	72.9	73	n/a
CZECH REPUBLIC	73.5	74.1	74.5	75.8	76.6	78.7	80.1	80.4	80.1	78.9	78	78.2
DENMARK	66.6	67.4	67.1	66.5	66.3	66.6	68.7	66.0	64.5	63.3	62.7	62.0
ESTONIA	n/a	87.8	86.8	88.9	87.1	85.5	83.5	82.2	81.1	81.5	81.5	n/a
FINLAND	71.8	73.3	73.6	73.2	74.1	74.3	74.1	73.9	73.6	73.2	72.7	n/a
FRANCE	61.8	62.5	60.5	62.1	63.0	62.0	63.1	63.7	64.3	65	64.1	n/a
GERMANY	53.3	n/a	n/a	n/a	n/a	53.2	53.4	53.3	52.6	52.5	51.9	n/a
GREECE	n/a	n/a	75.6	76.7	76.4	77.2	75.9	75.9	75.8	74.0	75.1	73.9
HUNGARY	88.1	87.6	88.5	89.0	89.8	89.7	89.3	89.8	88.7	88.2	86.3	86.3
IRELAND	78.2	78.0	78.1	77.3	73.7	73.3	70.2	69.6	69.9	68.6	70	n/a
ITALY	72.8	72.9	73.2	72.8	72.8	72.6	73.2	74.2	73.3	73.1	72.9	n/a
LATVIA	n/a	n/a	86.0	86.0	87.2	84.3	82.8	81.5	81.2	80.9	80.2	80.9
LITHUANIA	88.3	91.8	89.4	92.2	91.5	93.6	92.2	91.9	92.2	89.9	89.4	n/a
LUXEMBOURG	n/a	n/a	74.5	73.8	70.4	68.1	68.2	70.8	73.0	72.5	73.2	n/a
MALTA	79.6	80.1	79.8	79.9	78.5	79.5	80.2	81.8	80.3	80	80.8	n/a
NETHERLANDS	63.9	65.4	66.6	67.5	68.4	67.2	67.1	67.5	67.1	67	67.8	69.0
POLAND	n/a	n/a	62.5	66.0	68.7	81.3	82.1	82.4	83.8	83.5	83.7	n/a
PORTUGAL	74.4	75.5	74.2	74.5	74.6	74.9	75.0	74.5	74.2	74.9	74.8	n/a
ROMANIA	n/a	n/a	96.1	96.5	96.5	97.5	96.6	96.6	95.6	96.2	96.4	96.0
SLOVAKIA	82.1	88.9	89.1	89.3	89.5	90.0	90.2	90.4	90.5	90.3	89.3	89.5
SLOVENIA	83.2	84.5	81.3	81.3	81.3	78.1	77.5	76.2	76.6	76.7	76.2	75.1
SPAIN	n/a	n/a	80.6	80.2	79.6	79.8	79.7	78.9	77.7	78.8	78.2	77.8
SWEDEN	68.1	68.8	69.5	68.8	69.7	70.8	69.7	70.1	69.6	69.3	66.2	65.2
UK	70.0	71.4	73.3	72.5	69.9	70.0	67.9	66.7	64.6	64.4	63.5	n/a
EURO AREA 19	63.6	n/a	71.2	71.5	71.6	66.6	66.7	67.0	66.6	66.7	66.2	n/a
EU28	n/a	n/a	n/a	n/a	n/a	70.7	70.5	70.5	70.0	70	69.4	n/a
ICELAND	86.8	86.2	86.4	85.8	84.2	81.3	77.9	77.3	77.5	78.2	77.8	n/a
NORWAY	82.7	83.7	83.8	86.1	85.4	82.9	84.0	84.8	83.5	84.4	82.8	82.7
TURKEY	n/a	60.7	60.8	60.9	60.8	n/a	59.6	60.7	61.1	n/a	n/a	n/a

Source:
Eurostat

2) The series has been revised for at least two years in:
- Romania

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

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
AUSTRIA	36,200	39,200	38,200	38,500	38,300	38,600	45,900	40,800	46,400	50,000	50,800	53,900
BELGIUM	59,384	61,083	53,923	52,651	45,456	49,872	44,352	46,811	49,141	54,903	46,187	51,225
BULGARIA	n/a	53,049	64,185	49,407	20,166	12,832	10,973	10,616	12,278	15,848	17,264	18,157
CROATIA	23,484	25,517	24,877	24,585	17,018	13,378	13,470	9,742	7,744	7,743	6,950	9,398
CYPRUS	9,098	9,794	9,521	8,896	8,950	8,777	7,506	7,172	5,341	4,933	5,014	5,354
CZECH REPUBLIC	47,974	49,777	47,298	47,389	41,954	39,158	39,656	34,006	29,475	28,127	28,886	31,002
DENMARK	35,857	35,597	23,117	16,235	8,976	17,010	17,340	12,264	11,423	15,817	21,932	24,264
ESTONIA	9,151	12,863	8,925	5,468	2,081	2,581	2,830	3,035	3,049	3,941	5,588	6,021
FINLAND	36,773	35,418	31,902	25,721	26,697	32,836	34,554	31,752	26,583	29,310	31,597	39,031
FRANCE	551,700	602,300	571,300	476,200	380,200	476,500	517,800	480,200	422,600	378,900	397,700	448,200
GERMANY	240,468	247,541	182,336	174,595	177,939	187,667	228,311	241,090	272,433	285,079	313,296	375,388
GREECE	56,342	45,406	41,790	34,021	27,447	23,380	15,114	9,066	5,675	4,620	4,618	4,305
HUNGARY	51,490	44,826	44,276	43,862	28,400	17,353	12,488	10,600	7,536	9,633	12,515	31,559
IRELAND	108,178	85,820	92,130	75,042	43,752	20,022	12,522	6,741	7,199	7,411	13,044	16,375
ITALY	278,602	261,455	250,271	191,783	141,587	119,409	112,391	82,058	53,408	46,788	n/a	n/a
LATVIA	5,298	6,461	5,877	3,749	2,244	1,844	2,022	2,262	2,369	2,295	2,193	1,998
LITHUANIA	5,500	7,482	8,869	8,189	5,994	5,876	4,951	5,768	7,118	6,868	7,152	8,458
LUXEMBOURG	4,692	4,411	4,934	4,017	3,693	3,892	4,323	4,305	3,761	6,360	4,558	4,846
MALTA	9,081	10,409	11,343	6,836	5,298	4,444	3,955	3,064	2,705	2,937	3,947	7,508
NETHERLANDS	83,273	96,447	87,918	87,198	72,646	61,028	55,804	37,370	26,184	39,365	53,533	50,997
POLAND	55,391	67,692	92,240	99,794	90,632	87,593	85,270	75,923	67,175	65,449	72,293	80,796
PORTUGAL	73,922	71,921	65,828	45,981	27,298	25,002	17,481	11,430	7,416	6,858	8,169	8,219
ROMANIA	43,542	51,065	56,618	61,092	48,833	42,189	39,424	37,852	37,776	37,672	39,112	38,653
SLOVAKIA	19,796	20,592	18,116	28,321	20,325	16,211	12,740	n/a	n/a	n/a	n/a	n/a
SLOVENIA	6,000	8,000	9,000	8,000	5,209	4,225	3,285	2,700	2,675	2,197	2,179	2,521
SPAIN	603,633	734,978	633,430	267,876	130,418	91,509	75,894	57,486	31,213	33,643	36,059	54,760
SWEDEN	34,272	45,233	28,712	24,919	21,618	28,815	29,543	26,051	34,501	42,871	56,092	63,127
AUSTRALIA	157,853	155,440	160,796	150,002	149,995	181,960	153,755	156,634	181,248	208,556	238,289	233,883
NORWAY			32,402	25,917	19,576	21,278	27,735	30,142	30,252	27,130	30,927	36,530
TURKEY	424,346	491,230	478,107	389,468	412,758	701,297	558,025	664,533	730,149	937,209	800,785	888,785
USA	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	1,206,600

Sources:
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
- Denmark
- Finland
- France
- Ireland
- Poland
- Portugal
- 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: 2015 estimate

12. Housing Starts

Number of projects started per year

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
BELGIUM	54,415	57,907	54,450	50,380	44,929	47,569	41,574	44,818	44,696	52,826	43,520	n/a
BULGARIA	n/a	n/a	n/a	n/a	n/a	8,009	7,096	6,789	7,669	8,355	12,308	12,495
CZECH REPUBLIC	40,381	43,747	43,796	43,531	37,319	28,135	27,535	23,853	22,108	24,351	26,378	27,224
DENMARK	34,042	35,792	25,704	17,090	10,156	15,682	16,992	14,135	10,950	15,489	16,863	20,304
ESTONIA	n/a	n/a	n/a	n/a	n/a	n/a	1,150	1,577	2,343	3,841	3,882	2,706
FINLAND	35,194	35,578	32,044	23,360	23,467	33,641	32,962	29,930	27,764	25,081	32,262	37,250
FRANCE	464,800	493,800	488,600	399,100	346,300	414,200	431,500	384,300	367,500	337,100	334,900	372,200
GREECE	195,207	125,387	103,865	79,601	61,490	52,344	29,974	18,817	11,748	9,619	9,264	9,286
HUNGARY	35,545	29,208	27,396	22,314	8,985	n/a	n/a	n/a	n/a	n/a	n/a	n/a
IRELAND	77,709	75,602	48,876	22,852	8,599	6,391	4,365	4,042	4,708	7,717	8,747	13,234
ITALY	310,978	295,201	281,740	219,143	163,427	131,184	123,499	n/a	n/a	n/a	n/a	n/a
MALTA	9,081	10,409	11,343	n/a	n/a	n/a	3,955	n/a	n/a	n/a	n/a	n/a
POLAND	102,038	137,962	185,117	174,686	142,901	158,064	162,200	141,798	127,392	148,122	168,403	173,932
ROMANIA	49,795	66,817	87,643	143,139	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
SLOVAKIA	19,796	20,592	18,116	28,321	20,325	16,211	12,740	n/a	n/a	n/a	n/a	n/a
SLOVENIA	8,000	9,000	11,000	7,447	6,019	4,831	3,844	3,066	3,142	2,762	2,749	2,975
SPAIN	729,652	865,561	651,427	264,795	111,140	91,662	78,286	44,162	34,288	34,873	49,695	64,038
SWEDEN	31,787	45,264	27,571	21,214	17,977	27,551	26,782	21,339	30,606	36,785	48,042	59,468
UK	223,900	223,990	233,650	141,630	114,130	140,110	138,490	125,340	149,930	169,910	177,290	n/a
AUSTRALIA	150,751	151,006	150,923	145,129	135,827	158,229	150,018	151,373	168,337	201,073	223,066	230,230
BRAZIL	n/a	n/a	n/a	151,269	158,961	326,868	393,270	366,907	340,657	294,050	270,804	251,664
ICELAND	4,393	3,746	4,446	3,172	192	321	142	466	769	582	1,612	1,133
JAPAN	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	974,137
NORWAY	30,706	32,559	31,893	25,083	19,021	22,226	28,225	29,202	27,634	25,404	30,150	31,278
USA	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	1,174,000

Sources:
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:
- Denmark
- Finland
- France
- Spain
- Sweden
- UK
- Australia

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

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
AUSTRIA	38,600	41,900	47,700	47,700	38,600	35,900	37,700	41,000	34,400	36,000	39,700	48,300
BULGARIA	12,059	13,270	18,864	20,924	22,058	15,771	13,953	9,970	9,250	9,993	7,806	9,342
CROATIA	8,449	8,657	8,480	8,148	6,733	6,108	5,468	4,948	4,566	3,841	3,678	n/a
CYPRUS	16,416	16,647	16,501	18,195	16,644	13,434	9,091	6,565	3,833	2,718	2,390	n/a
CZECH REPUBLIC	32,863	30,190	41,649	38,380	38,473	36,442	28,630	29,467	25,238	23,954	25,095	27,322
DENMARK	27,399	29,092	31,589	27,212	19,092	11,894	12,773	16,669	15,137	14,107	14,628	18,146
ESTONIA	3,928	5,068	7,073	5,300	3,026	2,324	1,918	1,990	2,079	2,756	3,969	4,732
FINLAND	32,701	33,082	34,650	30,340	21,362	24,408	32,383	32,365	28,815	28,987	28,199	29,630
FRANCE	371,653	410,579	458,039	470,976	395,103	347,166	381,620	399,056	404,355	413,627	399,564	n/a
GERMANY	242,316	249,436	210,739	175,927	158,987	159,832	183,110	200,466	214,817	245,325	247,722	277,691
GREECE	103,299	123,250	137,391	104,621	51,955	54,545	53,099	37,336	23,162	13,559	8,540	6,655
HUNGARY	41,084	33,864	36,159	36,075	31,994	20,823	12,655	10,560	7,293	8,382	7,612	10,032
IRELAND	80,957	93,419	78,027	51,724	26,420	14,602	10,480	8,488	8,301	11,016	12,666	14,932
ITALY	310,978	295,201	281,740	219,143	163,427	131,184	123,499	n/a	n/a	n/a	n/a	n/a
LATVIA	3,812	5,865	9,319	8,084	4,187	1,918	2,662	2,087	2,201	2,631	2,242	2,200
LITHUANIA	5,900	7,286	9,315	11,829	9,400	3,667	3,733	3,198	3,467	4,456	5,707	7,051
LUXEMBOURG	1,979	2,266	3,023	4,444	3,740	2,824	2,162	2,304	2,642	3,357	n/a	n/a
NETHERLANDS	67,016	72,382	80,193	78,882	82,932	55,999	57,703	48,668	49,311	44,041	48,381	54,849
POLAND	114,060	115,187	133,778	165,192	160,019	135,818	131,148	152,904	145,388	143,235	147,821	163,394
PORTUGAL	76,123	68,764	67,463	59,256	47,915	35,442	25,807	18,782	11,860	8,966	6,687	6,704
ROMANIA	32,868	39,638	47,299	67,255	62,520	48,862	45,419	44,016	43,587	44,984	47,017	52,206
SLOVAKIA	14,863	14,444	16,473	17,184	18,834	17,076	14,608	n/a	n/a	n/a	n/a	n/a
SLOVENIA	8,000	8,000	8,000	9,968	8,530	6,355	5,468	4,307	3,484	3,163	2,776	3,163
SPAIN	603,633	734,978	633,430	267,876	130,418	91,509	75,894	57,486	31,213	33,643	36,059	54,760
SWEDEN	23,068	29,832	30,527	32,021	22,821	19,500	20,064	25,993	29,225	29,164	34,603	42,441
UK	209,570	212,820	226,420	188,250	158,370	136,590	140,600	141,530	135,330	144,980	170,990	n/a
AUSTRALIA	161,267	143,374	149,538	142,886	144,254	146,896	143,104	141,705	150,591	174,166	194,035	209,942
ICELAND	3,106	3,294	3,348	2,978	893	1,148	565	1,076	934	1,149	1,120	1,513
NORWAY	28,853	27,744	31,056	28,640	21,705	18,090	20,046	26,275	28,456	28,072	28,265	29,286
RUSSIA	515,000	609,000	722,000	768,000	702,000	717,000	786,000	838,000	929,000	1,124,000	1,195,000	1,167,000
TURKEY	166,646	218,408	246,524	263,402	329,861	306,823	450,033	461,446	613,286	679,759	657,291	664,929
USA	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	1,059,000

Sources:
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

For Archive:
Austria - data break in 1995

14. Real Gross Fixed Investment in Housing

Annual % change

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
AUSTRIA	1.4	0.4	1.9	0.8	-1.6	0.7	2.9	-1.3	-0.1	-0.6	0.9	0.3
BELGIUM	10.2	6.9	2.9	-1.4	-8.6	2.6	-2.4	0.2	-3.3	4.8	0.8	n/a
BULGARIA	57.6	97.4	-7.2	22.4	-20.4	-40.8	-14.2	-26.7	-4	-3.3	-10.3	-6.2
CYPRUS	13.4	18.2	8.1	-0.3	-19.6	-14.4	-16.8	-19.5	-23	-2	8.2	8.7
CZECH REPUBLIC	6.4	8	26.2	-1.5	-4.6	10.3	-5.9	2.7	-7.7	10.2	22.5	9.1
DENMARK	16.7	11.4	-5.5	-16.7	-20.4	-8.9	15.8	-5.5	-7.8	8.6	3.8	11
ESTONIA	39.6	43.6	-3.2	-29.2	-35.9	-9.4	9.9	9	19.3	18.4	13.9	12.2
FINLAND	5	3.8	-0.4	-10.6	-13.9	24.1	5.3	-3.5	-5.3	-6.6	2	10.5
FRANCE	5	5.4	4	-3	-9.2	2.1	0.9	-2.2	-0.4	-1.8	-1.4	2.6
GERMANY	-4.3	6.1	-1.8	-3.2	-3.4	4.3	10	3.4	-0.8	3	1.5	4
GREECE	-9.2	17.7	14.4	-23.9	-19.6	-26.2	-14.6	-37.9	-31.1	-53.3	-25.8	-12.8
HUNGARY	-12.9	-16.6	6.6	6.2	-3.4	-24.7	-27.4	-9.9	-6	17.3	-3.7	n/a
IRELAND	16.8	3.8	-8	-16.7	-37.6	-32.9	-18.5	-20.3	6.3	19	4.6	17.9
ITALY	5.5	4.9	1.4	-1.7	-9.2	0	-6.9	-7.5	-4.5	-7	2	3
LATVIA	17.8	34.4	41.4	-11.9	-52.4	-28.9	1.3	13.8	-1.3	9.7	-19.5	-11.1
LITHUANIA	0	21.2	14.9	24.3	-7.2	-29.7	1	2.3	11.5	16.9	13.9	7
LUXEMBOURG	-2	23.7	37	8.7	-22.3	-11.7	8.3	4.7	6.1	-8.2	39.7	6.7
MALTA	-0.3	12.4	12.3	-21.4	-26.6	-16.1	0.6	-9.7	-7.7	1.4	38.3	28.9
NETHERLANDS	5.5	5.8	5.1	0.4	-14.9	-16	-4.4	-12.9	-12.2	6.1	20.9	19
POLAND	9.7	9.6	13.1	6.2	-2.3	-4.2	1.2	5.1	0.9	8.4	7.4	n/a
PORTUGAL	0.4	-6.3	-4.8	-13.1	-14.3	-10.4	-11.5	-7.7	-14.3	-1.1	4.3	-2
ROMANIA	35.7	-6.3	50.6	40.9	-14.2	2.2	-10.2	5.1	-11.2	11.5	n/a	n/a
SLOVAKIA	7.2	-12.3	13.8	2	14	-10.3	-3.6	0.1	17.8	-1.7	-11.6	2.9
SLOVENIA	15.7	10.3	14.1	12.4	-20.5	-20.4	-12.4	-12.5	-7.9	-5.8	6.1	-1
SPAIN	6.5	6.7	1.3	-9.2	-20.3	-11.6	-13.3	-10.3	-10.2	6.2	3.1	3.7
SWEDEN	9.9	14.5	6.8	-13.2	-19	12.7	8	-11.8	0.9	15.6	16.1	16.2
UNITED KINGDOM	-2.1	-3.8	-1.5	-7.6	-20.8	5	3.9	-3.9	6.5	11.5	4.7	2.6
EU 28	2.9	5	1.7	-5.4	-12.6	-2	-0.5	-3.8	-2.3	1.9	3	3.7
EURO AREA 19	3.1	5.9	1.7	-5.3	-11.6	-2.5	-1.2	-3.7	-3.3	-0.2	2.1	3.7
ICELAND	11.9	16.5	13.2	-21.9	-55.7	-18	5.4	6.9	10.8	14.8	-3.1	33.7
NORWAY	9.7	4	2.7	-9	-8.1	-1.6	17	10.9	5.3	-1.4	1.6	9.9
TURKEY	12.3	17.8	6	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
UNITED STATES	6.6	-7.6	-18.8	-24.0	-21.2	-2.5	0.5	13.5	9.5	1.6	6.9	n/a

Sources:
Eurostat, OECD

1) Time series breaks:

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

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
AUSTRIA	3,949	3,971	3,998	4,029	4,061	4,083	4,441	4,463	4,489	4,507	4,506	4,542
BELGIUM	4,858	4,903	4,950	4,996	5,043	5,087	5,131	5,180	5,229	5,277	5,319	5,367
BULGARIA	3,716	3,729	3,747	3,767	3,789	3,804	3,900	3,909	3,918	3,928	3,935	3,944
CROATIA	n/a	n/a	n/a	n/a	n/a	n/a	1,924	n/a	n/a	n/a	n/a	n/a
CYPRUS	340	359	376	394	410	421	431	437	441	444	446	n,/a
CZECH REPUBLIC	4,486	4,516	4,558	4,596	4,635	4,671	4,700	4,729	4,754	n/a	n/a	n/a
DENMARK	2,641	2,658	2,670	2,696	2,722	2,770	2,786	2,797	2,812	2,827	2,844	2,861
ESTONIA	629	633	638	645	651	654	656	658	n/a	n/a	n/a	n/a
FINLAND	2,430	2,454	2,477	2,499	2,517	2,537	2,556	2,580	2,600	2,618	2,634	2,655
FRANCE	30,687	31,060	31,449	31,819	32,174	32,520	32,860	33,212	33,575	33,917	34,225	34,537
GERMANY	39,551	39,753	39,918	40,058	40,184	40,479	40,630	40,806	40,995	41,221	41,446	41,700
GREECE	5,885	6,009	6,146	6,251	6,317	6,372	6,440	6,474	6,494	6,506	6,513	6,520
HUNGARY	4,173	4,209	4,238	4,270	4,303	4,331	4,349	4,394	4,402	4,408	4,415	4,420
IRELAND	1,733	1,838	1,912	1,960	1,982	1,992	1,999	2,003	2,007	2,014	2,022	2,004
ITALY	29,771	30,360	31,211	29,598	30,112	30,580	31,791	31,576	n/a	n/a	n/a	n/a
LATVIA	998	1,018	1,036	1,042	1,035	n/a	1,019	n/a	n/a	n/a	n/a	n/a
LITHUANIA	1,300	1,307	1,316	1,328	1,337	1,341	1,283	1,289	1,298	1,396	1,408	1,417
LUXEMBOURG	125	n/a	n/a	175	n/a	n/a	223	n/a	n/a	n/a	n/a	n/a
MALTA	192	n/a	n/a	n/a	n/a	n/a	224	n/a	n/a	n/a	n/a	n/a
NETHERLANDS	6,912	6,967	7,029	7,105	7,172	7,218	7,266	7,386	7,449	7,535	7,588	7,641
POLAND	12,872	12,987	12,994	13,150	13,302	13,422	13,560	13,723	13,853	13,983	14,119	n/a
PORTUGAL	5,672	5,706	5,744	5,793	5,826	5,852	5,879	5,898	5,910	5,920	5,926	n/a
ROMANIA	8,202	8,231	8,271	8,329	8,385	8,428	8,722	8,761	8,800	8,841	8,882	n/a
SLOVAKIA	1,940	1,955	1,970	1,987	2,006	2,023	2,036	n/a	n/a	n/a	n/a	n/a
SLOVENIA	805	812	820	830	838	845	850	854	857	860	n/a	n/a
SPAIN	22,882	23,458	24,027	24,591	24,938	25,131	25,209	25,271	25,245	25,209	25,171	n/a
SWEDEN	4,373	4,403	4,435	4,466	4,488	4,508	4,524	4,551	4,634	4,669	4,717	4,796
UK	26,274	26,516	26,772	27,047	27,266	27,448	27,614	27,767	27,914	28,073	n/a	n/a
AUSTRALIA	n/a	n/a	n/a	n/a	n/a	n/a	7,760	n/a	n/a	n/a	n/a	n/a
BRAZIL	53,374	54,747	56,339	58,181	59,253	57,324	62,117	63,768	65,130	67,039	68,037	251,664
ICELAND	117	121	126	129	130	131	131	132	132	134	135	136
JAPAN	n/a	n/a	n/a	57,586	n/a	n/a	n/a	n/a	60,629	n/a	n/a	n/a
NORWAY	2,054	2,215	2,243	2,274	2,301	2,343	2,369	2,399	2,427	2,456	2,485	2,516
RUSSIA	57,400	58,000	58,600	59,000	59,500	60,100	60,800	61,500	61,300	62,900	64,000	n/a
TURKEY	n/a	n/a	n/a	n/a	n/a	n/a	19,482	n/a	n/a	n/a	n/a	n/a
USA	125,363	127,296	129,064	130,415	131,269	131,776	132,168	132,600	133,199	133,946	134,764	135,660

Sources:
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:
- Greece
- Lithuania
- Portugal
- Sweden
- Norway
- USA

3) Notes
- For further details on the methodologies, please see "Annex : Explanatory Note on data"
- n/a : figure not available

16. Number of Transactions

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
BELGIUM	118,919	121,312	125,718	121,604	115,069	128,094	128,621	124,358	124,356	135,169	105,963	114,783
CROATIA	2,145	3,389	3,110	3,025	2,861	2,319	2,169	2,357	1,997	2,410	1,672	2,791
CYPRUS	n,a,	23,213	28,371	18,565	11,444	13,701	12,279	11,424	8,609	9,398	11,469	n/a
DENMARK	85,196	71,905	70,225	53,248	46,215	52,955	44,064	45,506	46,566	52,490	62,006	63,425
ESTONIA	47,215	44,929	40,008	28,738	20,809	23,747	23,327	26,760	30,141	31,093	33,081	33,410
FINLAND	84,340	83,848	87,411	70,483	71,012	70,689	69,099	71,645	63,440	58,520	61,578	61,228
FRANCE	1,028,500	1,138,300	1,164,800	941,100	842,000	1,056,000	1,080,000	937,400	917,800	908,000	1,037,500	1,126,700
GERMANY	503,000	442,000	456,000	454,000	472,000	512,000	555,000	577,000	564,000	561,000	577,000	587,000
GREECE	215,148	172,897	167,699	157,978	135,967	117,948	83,665	57,650	49,774	43,443	54,631	n/a
HUNGARY	193,792	225,734	191,170	154,097	91,137	90,271	87,730	85,957	88,713	103,697	134,101	131,289
IRELAND	146,931	151,620	121,844	87,565	44,375	23,312	22,308	29,686	32,354	45,612	50,508	50,866
ITALY	833,350	845,051	806,225	686,587	609,145	611,878	598,224	444,018	403,124	417,524	448,893	533,741
LATVIA	60,120	70,846	57,157	37,872	30,042	31,406	35,267	38,638	43,976	44,579	44,160	51,352
LUXEMBOURG	5,011	n/a	5,091	4,409	4,509	5,165	5,749	5,474	5,471	6,477	6,269	6,334
MALTA	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	6,502
NETHERLANDS	206,629	209,767	202,401	182,392	127,532	126,127	120,739	117,261	110,094	153,511	178,293	214,793
POLAND	70,757	67,936	65,792	77,526	60,894	76,698	86,897	116,555	124,685	130,656	160,789	n/a
PORTUGAL	300,044	285,483	281,367	241,040	205,442	129,950	93,618	76,398	79,775	84,215	107,302	127,106
ROMANIA	535,000	682,000	521,000	484,000	352,000	352,324	371,569	434,954	473,319	454,001	483,699	521,805
SLOVENIA	n/a	n/a	n/a	6,994	5,705	7,923	6,882	6,336	5,783	7,448	9,317	10,652
SPAIN	901,574	955,186	836,871	564,464	463,719	491,287	349,118	363,623	300,568	365,621	401,713	457,689
SWEDEN	149,072	151,448	163,676	146,882	146,582	152,072	144,946	143,675	151,582	159,536	168,298	157,683
UK	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	1,229,580	1,234,740
BRAZIL	402,873	468,888	515,705	563,986	622,892	858,389	946,647	922,426	997,201	993,456	901,456	818,310
ICELAND	13,415	9,876	13,163	5,218	3,039	4,012	5,887	6,690	7,431	8,314	10,067	11,074
JAPAN	170,900	167,300	150,500	170,800	168,800	164,600	166,800	154,900	169,467	n/a	n/a	n/a
NORWAY	74,435	78,455	74,926	65,241	70,995	100,177	110,844	113,276	107,917	110,940	119,041	121,070
RUSSIA	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	3,869,078
TURKEY	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	1,341,453
USA	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	6,011,000

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

1) Time series breaks
- Estonia: 2006 (data from the Estonian Landboard)
- Ireland: 2011 (the source was changed from 2011 onwards)
- Germany: 2007 (the source was changed from 2007 onwards)
- Portugal: 2000
- Norway: 2010

2) The series has been revised for at least two years in:
- Belgium
- Estonia
- France
- Germany
- Ireland
- Latvia
- Norway

3) Notes
- For Ireland, please note that data prior to 2011 is an estimation based on mortgage approvals, and must thus be used with caution.
- In Poland, the data for 2012 concerns only the dwellings of the secondary market and excludes single family 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 Belgium, the number includes only transaction on second hand houses.
- In the Netherlands, the number includes commercial transactions also.
- In Romania, the number includes commercial transactions also.
- In Portugal, the number covers only urban areas including commercial transactions.
- For further details on the methodologies, please see "Annex : Explanatory Note on data"
- n/a : figure not available
- For Finland 2000-2007 are estimates by the Federation of Finnish Financial Service.
- For Denmark 2000-2003 is an estimation.

17. Nominal House Price Indices

2006 = 100

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
AUSTRIA	96.1	100.0	104.7	105.9	109.9	116.8	121.7	136.8	143.1	148.1	154.2	165.5
BELGIUM	88.3	100.0	109.8	115.6	115.2	121.1	126.1	129.5	132.3	133.9	136.3	142.1
BULGARIA	87.2	100.0	128.9	161.1	128.2	115.2	108.8	106.8	104.4	105.9	108.9	116.5
CROATIA	99.7	100.0	125.9	135.3	133.6	122.7	131.6	129.4	116.6	117.7	119.6	112.3
CYPRUS	n/a	100.0	127.3	144.9	142.2	139.7	133.3	122.5	111.7	101.2	96.5	95.4
CZECH REPUBLIC	92.2	100.0	119.4	133.5	123.2	123.6	122.8	121.9	122.0	126.7	131.9	146.3
DENMARK	81.8	100.0	104.4	100.0	89.5	92.0	88.7	84.7	85.4	86.7	92.5	95.9
ESTONIA	66.9	100.0	120.8	109.1	68.5	72.4	78.6	84.3	93.3	106.1	113.4	118.8
FINLAND	93.0	100.0	105.5	106.1	105.8	115.0	118.1	120.1	122.0	121.3	120.3	121.3
FRANCE	90.9	100.0	105.7	101.7	97.5	104.9	108.8	106.5	104.5	101.9	101.4	103.0
GERMANY	99.8	100.0	99.8	102.8	102.3	102.9	105.5	108.7	112.2	115.7	120.9	128.1
GREECE	88.3	100.0	106.0	107.7	103.7	98.9	93.5	82.6	73.6	68.1	64.7	63.2
HUNGARY	95.1	100.0	104.8	105.9	99.2	94.1	92.4	89.7	84.2	87.0	102.4	120.6
IRELAND	87.1	100.0	107.5	100.0	80.9	70.0	58.6	50.5	51.9	60.6	66.0	70.2
ITALY	94.7	100.0	104.5	105.0	104.9	105.2	106.0	103.0	97.1	92.9	90.5	89.8
LATVIA	n/a	100.0	136.3	137.8	86.4	76.9	84.9	87.5	93.4	99.0	95.7	104.1
LITHUANIA	77.9	100.0	126.3	137.7	96.5	89.3	95.2	95.0	96.2	102.4	106.1	111.8
LUXEMBOURG	90.0	100.0	107.0	110.6	109.3	115.2	119.5	124.5	130.7	136.4	143.8	152.4
MALTA	83.5	100.0	121.1	134.5	128.6	130.0	128.3	132.2	131.6	135.0	142.8	150.8
NETHERLANDS	95.6	100.0	104.2	107.3	103.6	101.3	98.9	92.5	86.4	87.2	89.7	94.2
POLAND	n/a	100.0	129.5	128.1	119.3	116.6	115.9	106.3	105.3	107.2	108.4	111.1
PORTUGAL	98.0	100.0	101.4	105.2	104.2	105.0	99.9	92.8	91.1	94.9	97.8	104.8
ROMANIA	n/a	n/a	n/a	n/a	100.0	86.6	71.8	70.8	71.0	71.1	73.6	79.5
SLOVAKIA	85.6	100.0	123.8	151.1	134.4	129.1	125.1	123.7	122.6	121.6	122.7	127.9
SLOVENIA	n/a	100.0	120.6	129.0	116.8	117.0	120.1	111.9	106.0	99.0	99.8	103.1
SPAIN	91.7	100.0	104.8	101.4	95.1	91.7	85.5	76.9	73.7	73.5	74.9	76.0
SWEDEN	90.1	100.0	110.8	114.2	116.0	124.5	125.5	124.1	128.3	137.3	151.9	164.6
UK	91.7	100.0	109.9	105.0	95.6	101.1	99.7	100.0	102.6	110.8	117.4	126.1
EU (simple average)	89.8	100.0	113.7	118.4	107.5	106.4	105.9	104.1	103.3	105.3	108.7	114.1
EURO AREA (19) (simple average)	n/a	100.0	112.5	116.5	105.6	105.4	105.7	104.3	103.9	105.2	107.2	111.7
AUSTRALIA	93.5	100.0	110.5	114.9	119.5	133.5	130.6	130.2	138.8	151.4	165.1	174.2
BRAZIL	88.0	100.00	119.5	147.8	186.2	229.8	267.2	294.1	319.8	334.1	328.8	320.2
ICELAND	85.6	100.0	109.4	116.2	104.9	101.7	106.4	113.8	120.4	130.5	141.2	155.1
JAPAN	n/a	n/a	n/a	100.0	94.6	95.6	95.1	94.0	95.6	95.2	95.7	96.5
NORWAY	85.4	100.0	104.7	96.3	108.6	116.1	125.3	135.2	134.4	145.0	152.1	171.4
RUSSIA	66.2	100.0	122.0	137.5	124.7	126.6	134.6	149.9	156.1	164.6	161.7	159.0
TURKEY	n/a	n/a	n/a	n/a	n/a	100.0	110.2	123.1	138.7	158.8	188.0	215.0
USA	94.4	100.0	100.0	92.0	86.6	84.0	80.5	82.9	88.9	93.6	98.7	104.7

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:

- Ireland
- Italy
- Lithuania
- Luxembourg
- Portugal
- Sweden
- UK
- Norway

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.
- For Brazil: Prices grew fast due to pent-up demand unleashed after 2006, when inflation and interest rates where controled.
- For US: the index includes purchase-only

18. Nominal House Price Index – cities

2006 = 100

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
AUSTRIA												
Vienna	89.1	100.0	98.9	108.1	107.8	114.1	125.2	134.0	139.0	140.3	147.0	161.8
Rest of the country	96.1	100.0	107.0	110.8	111.5	115.7	111.7	114.1	116.6	103.6	103.9	112.2
BELGIUM												
Brussels	n/a	n/a	n/a	n/a	n/a	100.0	106.1	110.7	115.3	110.4	113.6	117.0
BULGARIA												
Sofia	91.1	100.0	135.1	173.6	129.5	116.9	109.4	108.3	107.3	110.4	118.8	131.9
Varna	91.8	100.0	121.6	161.8	122.2	110.2	103.4	99.5	98.6	101.2	110.1	118.5
Plovdiv	91.0	100.0	133.9	160.9	138.0	120.0	113.1	108.6	105.6	104.6	115.2	121.7
CROATIA												
Zagreb	100.8	100.0	134.4	156.3	153.9	134.5	134.8	136.7	121.2	130.6	128.8	114
Rest of the country	98.4	100.0	113.2	112.1	116.8	111.0	125.4	118.1	109.6	107.2	111.1	110.7
CYPRUS												
Nicosia	n/a	100.0	118.9	140.1	134.5	133.7	132.0	126.4	117.5	107.5	101.8	n/a
Limassol	99.8	100.0	99.8	102.8	102.3	102.9	105.5	108.7	112.2	115.7	120.9	n/a
Larnaca	n/a	100.0	127.3	144.9	142.2	139.7	133.3	122.5	111.7	101.2	96.5	n/a
CZECH REPUBLIC												
Prague	93.9	100.0	128.2	148.7	133.0	127.6	125.5	124.6	126.0	128.9	132.4	n/a
DENMARK												
Copenhagen	80.6	100.0	96.7	88.9	76.4	85.1	84.8	82.3	88.2	95.4	105.9	112.0
Aarhus	81.5	100.0	101.3	95.3	88.5	94.8	93.5	93.1	94.7	95.9	103.3	106.0
Odense	79.6	100.0	108.1	106.7	96.3	98.5	94.6	91.8	93.9	96.0	100.9	106.0
FINLAND												
Helsinki	91.1	100.0	106.7	107.1	107.8	120.6	125.3	128.4	133.4	134.1	134.5	138.3
Tampere	91.7	100.0	104.6	104.6	103.4	111.8	114.7	116.7	118.5	119.6	120.7	122.1
Turku	92.4	100.0	103.4	100.7	101.2	108.1	110.0	111.9	114.1	117.8	118.7	119.8
FRANCE												
Paris	91.1	100.0	110.3	112.7	108.3	127.8	145.9	144.3	142.3	139.0	139.6	145.6
Marseille	89.6	100.0	101.5	95.6	93.0	98.4	100.5	96.4	91.9	88.8	86.4	84.2
Lyon	88.8	100.0	104.6	97.4	98.3	110.5	117.5	122.4	122.2	120.3	121.7	125.7
GERMANY												
Aggregate Berlin, Hamburg, Munich	n/a	100.0	102.2	104.7	107.0	110.8	118.8	127.5	136.2	145.1	156.8	173
GREECE												
Athens	89.5	100.0	106.2	107.2	102.2	98.9	92.6	81.7	71.7	64.9	61.5	60.3
Thessaloniki	82.2	100.0	107.0	108.6	102.1	94.6	88.2	76.2	69.3	64.7	61.3	59.1

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
HUNGARY												
Budapest	95.7	100.0	102.5	105.7	101.3	95.7	94.7	90.8	82.7	88.8	110.8	133.7
Debrecen	100.9	100.0	107.0	101.7	96.9	92.6	91.2	94.7	83.9	89.2	105.6	121.7
Szeged	99.9	100.0	104.0	102.0	102.8	97.1	96.2	93.3	86.8	90.1	103.6	118.1
IRELAND												
Dublin	84.7	100.0	105.6	95.9	72.4	60.0	51.0	45.1	50.0	61.2	66.7	69.7
NETHERLANDS												
Amsterdam	91.1	100.0	111.3	114.4	109.3	108.7	106.0	99.2	96.7	104.7	116.1	132.9
The Hague	95.1	100.0	104.7	107.2	101.9	102.1	98.6	89.5	87.4	90.6	95.1	104.3
Rotterdam	96.3	100.0	102.3	105.7	102.2	100.6	101.1	94.7	91.8	93.1	98.3	108.3
POLAND												
Cracovia	n/a	100.0	105.8	102.9	96.9	99.0	98.0	96.3	91.8	91.9	93.5	93.7
Lodz	n/a	100.0	187.0	186.1	168.3	181.7	182.4	154.7	157.4	161.6	154.7	158.2
Warsaw	n/a	100.0	126.5	126.6	119.0	112.3	110.4	101.3	100.6	103.4	103.6	105.8
PORTUGAL												
Lisbon	n/a	n/a	n/a	n/a	100.0	100.7	97.7	91.6	90.4	94.1	95.7	98.9
ROMANIA												
Bucarest	n/a	n/a	n/a	n/a	100.0	84.2	67.3	68.7	62.3	62.2	64.3	70.6
SLOVAKIA												
Bratislava	83.4	100.0	121.1	143.3	127.1	125.4	121.9	120.7	120.6	119.8	123.0	130.1
Košice	89.8	100.0	139.8	195.7	158.7	162.0	167.8	167.1	159.7	158.3	162.8	160.4
Prešov	96.7	100.0	122.1	171.7	146.9	135.0	134.3	131.2	128.6	125.0	121.7	128.1
SLOVENIA												
Ljubliana	n/a	n/a	100.0	100.1	90.8	90.3	93.1	87.5	77.3	71.4	75.2	79.7
SPAIN												
Barcelona	90.6	100.0	105.7	104.9	98.5	95.4	87.1	77.9	72.1	72.6	74.8	79.4
Madrid	94.2	100.0	101.8	94.0	88.7	83.4	76.5	67.0	68.4	68.8	71.1	74.6
Valencia	90.4	100.0	105.0	105.9	98.7	93.7	86.1	73.2	71.4	71.5	72.2	72.8
SWEDEN												
Stockholm	88.6	100.0	114.5	117.1	117.5	128.9	130.7	130.3	135.5	149.6	170.6	185.5
Malmö	88.3	100.0	110.5	110.5	112.8	121.0	119.8	115.2	117.5	122.2	130.4	145.1
Göteborg	89.9	100.0	109.6	113.5	115.4	125.5	127.4	126.4	131.3	138.9	153.4	163.5
UNITED KINGDOM												
London	93.7	100.0	114.3	112.6	102.6	113.2	115.6	120.9	131.0	153.9	169.5	187.8

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
AUSTRALIA												
Canberra	94.0	100.0	111.9	115.7	121.4	135.8	134.6	133.9	134.8	137.8	143.3	151.1
Sydney	100.4	100.0	104.8	105.6	109.4	122.8	122.2	123.9	135.8	155.6	181.1	193.1
Melbourne	93.6	100.0	115.2	124.5	133.4	155.3	151.6	147.2	155.1	167.0	180.3	196.5
BRAZIL												
São Paulo	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	100.0	100.8	98.4
Rio de Janeiro	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	100.0	99.2	95.3
Belo Horizonte	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	100.0	98.9	95.4
ICELAND												
Reykjavik	86.7	100.0	108.8	115.6	103.9	100.0	104.1	113.2	121.8	134.3	146.6	161.9
JAPAN												
Tokyo	94.4	100.0	105.4	96.0	90.3	92.4	91.0	89.0	91.1	90.4	94.1	96.5
Osaka	99.5	100.0	103.4	98.4	92.3	92.8	92.1	90.3	90.4	89.2	90.0	89.7
Aichi	98.0	100.0	102.4	101.8	96.0	94.8	93.2	91.3	91.8	91.2	93.5	95.7
NORWAY												
Oslo	83.1	100.0	100.9	89.7	101.0	109.4	121.0	133.3	130.5	141.9	155.4	191.7
Bergen	84.3	100.0	101.1	87.7	99.4	109.8	118.9	127.6	128.7	141.2	149.7	157.0
Trondheim	87.8	100.0	99.8	88.9	102.7	113.1	124.7	138.4	139.1	149.5	155.6	171.7
RUSSIA												
Moscow	61.3	100.0	108.5	125.2	119.2	124.9	128.1	138.1	144.6	155.3	160.7	162.9
St. Petersburg	67.6	100.0	120.8	147.0	134.8	129.1	132.6	148.4	148.4	151.6	153.4	158.6
TURKEY												
Ankara	n/a	n/a	n/a	n/a	n/a	100.0	108.9	118.9	130.8	145.5	162.6	178.0
Istanbul	n/a	n/a	n/a	n/a	n/a	100.0	112.1	127.3	148.6	181.7	230.6	270.0
Izmir	n/a	n/a	n/a	n/a	n/a	100.0	110.9	124.4	138.1	156.3	181.5	211.0
USA												
Washington - DC	94.7	100.0	103.0	98.1	95.4	98.4	100.6	108.7	122.0	133.0	141.2	147.3
New York	95.8	100.0	100.5	98.5	95.3	94.5	92.0	91.9	93.9	95.8	98.5	102.0
Los Angeles	89.4	100.0	94.5	72.5	64.1	64.8	61.3	63.6	74.2	81.2	87.5	94.1

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:
- Bulgaria: Data referred to flats in the district centres only (newly built flats are excluded)
- Spain: the indexes refer to the regions around these cities
- Slovakia: the indexes refer to the regions around these cities, price per square metre
- Slovenia: the index comprises only apartments

19. Change in Nominal house price

Annual % change

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
AUSTRIA	5.0	4.1	4.7	1.1	3.8	6.3	4.2	12.4	4.6	3.5	4.2	7.3
BELGIUM	30.3	13.3	9.8	5.2	-0.4	5.1	4.2	2.7	2.1	1.2	1.8	4.3
BULGARIA	36.6	14.7	28.9	25.0	-20.4	-10.2	-5.5	-1.9	-2.2	1.4	2.8	3.2
CROATIA	-0.7	0.3	25.9	7.5	-1.2	-8.1	7.2	-1.6	-9.9	0.9	1.6	-6.1
CYPRUS	n/a	n/a	27.3	13.8	-1.9	-1.8	-4.6	-8.1	-8.9	-9.3	-4.6	-1.2
CZECH REPUBLIC	3.3	8.5	19.4	11.8	-7.7	0.3	-0.6	-0.8	0.1	3.8	4.1	11.0
DENMARK	18.0	22.2	4.4	-4.2	-10.5	2.8	-3.6	-4.5	0.8	1.5	6.7	3.6
ESTONIA	31.6	49.5	20.8	-9.6	-37.2	5.7	8.5	7.3	10.7	13.7	6.9	4.8
FINLAND	6.1	7.5	5.5	0.6	-0.3	8.8	2.7	1.6	1.6	-0.6	-0.8	0.9
FRANCE	14.9	10.0	5.7	-3.8	-4.1	7.6	3.7	-2.1	-1.8	-2.5	-0.5	1.6
GERMANY	3.5	0.2	-0.2	3.0	-0.5	0.6	2.5	3.0	3.2	3.1	4.5	6.0
GREECE	10.9	13.2	6.0	1.7	-3.7	-4.6	-5.5	-11.7	-10.9	-7.5	-5.0	-2.4
HUNGARY	2.4	5.2	4.8	1.0	-6.3	-5.2	-1.8	-3.0	-6.1	3.3	17.7	17.8
IRELAND	n/a	14.9	7.5	-7.0	-19.1	-13.5	-16.3	-13.8	2.8	16.7	9.0	6.4
ITALY	n/a	5.6	4.5	0.5	-0.1	0.3	0.8	-2.9	-5.7	-4.3	-2.6	-0.7
LATVIA	n/a	n/a	36.3	1.1	-37.3	-11.0	10.4	3.0	6.8	6.0	-3.4	8.8
LITHUANIA	25.7	28.4	26.3	9.0	-29.9	-7.4	6.6	-0.2	1.2	6.4	3.7	5.4
LUXEMBOURG	11.4	11.1	7.0	3.3	-1.2	5.4	3.7	4.2	5.0	4.4	5.4	6.0
MALTA	4.2	19.8	21.1	11.1	-4.4	1.1	-1.4	3.1	-0.4	2.6	5.8	5.6
NETHERLANDS	4.0	4.6	4.2	3.0	-3.4	-2.2	-2.4	-6.5	-6.6	0.9	2.9	5.0
POLAND	n/a	n/a	29.5	-1.1	-6.8	-2.3	-0.6	-8.3	-1.0	1.8	1.1	2.5
PORTUGAL	2.3	2.0	1.4	3.8	-0.9	0.8	-4.9	-7.1	-1.9	4.2	3.1	7.1
ROMANIA	n/a	n/a	n/a	n/a	n/a	-13.4	-17.1	-1.3	0.2	0.2	3.6	8.0
SLOVAKIA	-10.3	16.8	23.8	22.1	-11.1	-3.9	-3.1	-1.1	-0.9	-0.8	0.9	4.2
SLOVENIA	n/a	n/a	20.6	7.0	-9.5	0.1	2.7	-6.9	-5.2	-6.6	0.8	3.3
SPAIN	12.8	9.1	4.8	-3.2	-6.3	-3.5	-6.8	-10.0	-4.2	-0.3	1.8	1.5
SWEDEN	9.8	11.0	10.8	3.0	1.7	7.3	0.8	-1.1	3.4	7.0	10.7	8.4
UK	2.2	9.1	9.9	-4.5	-8.9	5.7	-1.4	0.4	2.6	8.0	6.0	7.4
AUSTRALIA	1.8	6.9	10.5	3.9	4.0	11.7	-2.2	-0.3	6.6	9.1	9.0	5.5
BRAZIL	8.6	13.6	19.5	23.7	26.0	23.4	16.3	10.1	8.7	4.5	-1.6	-2.6
ICELAND	17.7	16.9	9.4	6.2	-9.7	-3.0	4.6	7.0	5.8	8.4	8.2	9.8
JAPAN	n/a	n/a	n/a	n/a	-5.4	1.0	-0.5	-1.2	1.6	-0.3	0.5	0.9
NORWAY	9.2	17.1	4.7	-8.0	12.8	6.9	7.9	7.9	-0.6	7.9	4.9	12.7
RUSSIA	17.8	51.0	22.0	12.7	-9.3	1.5	6.3	11.4	4.2	5.4	-1.8	-1.6
TURKEY	n/a	n/a	n/a	n/a	n/a	n/a	10.2	11.7	12.7	14.5	18.4	14.3
USA	10.5	5.9	0.0	-8.1	-5.9	-3.0	-4.1	3.0	7.2	5.2	5.5	6.1

Sources:
European Mortgage Federation, National Statistics Offices, OECD, ECB (for the euro area)

1) Time series breaks
- See Table 17

2) The series has been revised for at least two years in:
- See Table 17

3) Notes
- For further details on the methodologies, please see "Annex : Explanatory Note on data"
- n/a : figure not available
- See Table 17 for further notes.

20. Nominal House Price to Disposable Income of Households Ratio

2006 = 100

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
AUSTRIA	100.6	100.0	100.0	98.2	101.6	107.3	108.6	117.6	122.6	124.2	127.3	131.6
BELGIUM	93.1	100.0	104.6	104.2	102.1	106.6	108.8	109.6	111.0	111.3	112.1	113.7
BULGARIA	99.1	100.0	113.3	117.1	90.8	81.1	71.9	69.7	66.4	n/a	n/a	n/a
CROATIA	106.9	100.0	118.9	116.0	115.0	104.0	111.3	110.2	102.0	103.1	77.8	72.9
CYPRUS	n/a	100.0	119.6	122.3	123.3	117.4	109.7	102.5	98.7	95.4	93.3	89.6
CZECH REPUBLIC	104.0	100.0	109.9	103.0	97.9	93.3	90.1	90.5	93.5	99.4	99.3	104.9
DENMARK	85.6	100.0	102.8	96.2	84.2	81.8	76.3	71.3	70.6	70.2	72.3	72.8
ESTONIA	78.2	100.0	100.9	80.5	55.7	59.2	59.0	59.7	63.9	67.8	69.5	68.9
FINLAND	96.9	100.0	99.7	94.9	92.1	96.3	94.8	93.6	92.5	91.3	89.3	88.9
FRANCE	95.1	100.0	100.5	93.7	89.7	94.2	95.7	93.1	91.1	88.0	86.3	85.9
GERMANY	102.0	100.0	97.8	98.3	98.6	96.9	96.3	96.8	98.2	98.9	100.2	103.0
GREECE	96.4	100.0	99.3	95.7	90.5	93.7	96.9	93.5	90.9	85.7	85.3	82.9
HUNGARY	93.8	100.0	96.3	94.3	98.7	91.0	84.1	82.3	76.4	78.4	91.1	101.9
IRELAND	93.8	100.0	99.2	87.1	76.0	68.6	59.1	49.5	51.1	57.5	59.4	60.8
ITALY	98.2	100.0	100.7	99.4	101.7	102.1	100.3	100.1	94.0	89.4	86.5	84.7
LATVIA	n/a	100.0	110.8	95.4	73.6	72.1	78.5	75.0	77.0	79.3	73.6	75.0
LITHUANIA	89.7	100.0	117.0	107.0	81.4	74.7	75.7	73.0	70.1	73.4	n/a	n/a
LUXEMBOURG	n/a	100.0	100.3	95.3	92.0	92.4	92.2	92.1	n/a	n/a	n/a	n/a
NETHERLANDS	98.6	100.0	99.9	101.3	97.9	95.2	90.9	84.7	78.3	78.9	78.6	80.8
POLAND	n/a	100.0	117.1	98.9	104.4	90.0	87.6	78.1	76.2	75.4	74.7	75.7
PORTUGAL	101.7	100.0	96.7	96.5	96.0	94.1	92.9	89.5	88.0	91.9	92.4	95.8
ROMANIA	n/a	n/a	n/a	n/a	100.0	82.8	68.5	70.1	51.1	47.9	45.9	46.7
SLOVAKIA	n/a	100.0	100.3	103.4	87.3	82.6	78.6	75.6	73.9	71.5	69.4	70.4
SLOVENIA	n/a	100.0	110.9	109.5	98.7	97.8	98.6	94.2	90.1	82.7	82.2	83.2
SPAIN	97.0	100.0	100.7	92.5	85.1	83.4	77.1	71.8	69.4	68.6	68.6	67.9
SWEDEN	95.4	100.0	103.5	104.6	112.4	105.1	94.9	86.8	87.1	94.4	103.8	109.9
UNITED KINGDOM	96.0	100.0	105.2	113.6	112.2	110.8	108.9	98.1	103.1	102.4	94.0	111.0
JAPAN	n/a	n/a	n/a	100.0	81.9	73.6	70.5	64.3	82.9	88.9	84.6	75.5
NORWAY	81.5	100.0	96.9	85.5	96.9	90.9	90.7	88.9	87.1	95.7	100.0	110.9
UNITED STATES	94.4	100.0	100.0	92.0	86.6	84.0	80.5	82.9	88.9	93.6	98.7	104.7

1) Time series breaks
- See Table 17

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

21. Total Covered Bonds Outstanding

Backed by Mortgages, EUR million

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
AUSTRIA	4,000	3,880	4,125	4,973	5,317	7,645	17,174	17,010	18,854	22,450	27,345	30,894
BELGIUM	—	—	—	—	—	—	—	2,590	8,188	10,575	15,105	16,700
CYPRUS	—	—	—	—	—	—	5,200	4,550	1,000	1,000	650	650
CZECH REPUBLIC	4,452	5,543	8,213	8,091	8,179	8,234	8,546	9,056	10,355	11,106	11,656	13,060
DENMARK	246,411	260,367	244,696	255,140	319,434	332,505	345,529	359,560	359,646	369,978	377,903	386,323
FINLAND	1,500	3,000	4,500	5,750	7,625	10,125	18,839	26,684	29,783	32,031	33,974	33,822
FRANCE	57,153	73,977	103,604	159,407	176,043	200,585	243,279	249,077	239,329	223,373	222,512	211,106
GERMANY	237,547	223,306	206,489	217,367	225,100	219,947	223,676	215,999	199,900	189,936	197,726	207,338
GREECE	—	—	—	5,000	6,500	19,750	19,750	18,046	16,546	14,546	4,961	4,485
HUNGARY	5,072	5,924	5,987	7,105	7,375	6,323	5,175	4,958	4,016	3,272	3,022	2,189
IRELAND	4,140	11,900	13,575	23,075	29,725	29,037	30,007	25,099	20,827	18,473	16,916	17,062
ITALY	—	—	—	6,500	14,000	26,925	50,768	116,405	122,099	122,464	122,135	138,977
LATVIA	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	67,604
POLAND	558	453	676	561	583	511	527	657	707	882	1,230	2,216
PORTUGAL	—	2,000	7,850	15,270	20,270	27,690	33,248	34,321	36,016	33,711	34,461	32,970
SLOVAKIA	1,583	2,214	2,738	3,576	3,608	3,442	3,768	3,835	4,067	3,939	4,198	4,197
SPAIN	150,213	214,768	266,959	315,055	336,750	343,401	369,208	406,736	334,572	282,568	252,383	232,456
SWEDEN	n/a	55,267	92,254	117,628	133,903	188,750	208,894	220,374	217,854	209,842	221,990	222,444
UK (regulated)	—	—	—	125,764	109,473	125,250	121,623	147,425	114,395	114,654	106,674	97,127
UK (non regulated)	28,384	54,265	84,874	78,092	90,993	77,965	63,429	37,818	18,077	16,143	8,236	—
AUSTRALIA	—	—	—	—	—	—	2,478	35,962	51,831	64,741	69,312	70,796
ICELAND	—	467	478	492	685	807	808	893	803	927	1,205	1,902
NORWAY	—	—	6,371	21,924	53,582	70,401	91,852	107,242	105,202	102,704	107,694	113,051
TURKEY	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	500
USA	—	4,000	12,859	12,937	12,888	11,497	9,546	6,000	6,000	4,000	4,000	2,000

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

22. Total Covered Bonds Issuances

Backed by Mortgages, EUR million

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
AUSTRIA	214	2,176	1,959	1,321	1,442	3,600	3,664	3,805	6,093	7,111	5,457	7,181
BELGIUM	—	—	—	—	—	—	—	2,590	5,598	2,387	4,530	2345
CYPRUS	—	—	—	—	—	—	5,200	—	—	—	—	—
CZECH REPUBLIC	2,558	956	3,501	938	738	723	770	1,309	1,791	2,188	2,729	1693
DENMARK	149,708	114,014	70,955	103,230	125,484	148,475	145,147	185,845	149,989	154,310	163,050	128,329
FINLAND	1,250	1,500	1,500	1,250	2,125	5,250	9,964	9,368	3,771	6,469	7,425	4,679
FRANCE	12,972	21,269	33,511	64,009	37,285	51,525	88,776	53,310	21,386	17,558	33,903	19,482
GERMANY	33,722	35,336	26,834	57,345	56,852	42,216	40,911	38,540	33,583	29,145	40,369	35,070
GREECE	—	—	—	5,000	1,500	17,250	5,000	—	—	750	—	3,675
HUNGARY	808	1,418	331	3,331	3,209	542	2,264	1,140	559	91	888	625
IRELAND	2,000	7,753	1,675	9,506	14,801	6,000	9,290	5,500	3,235	2,535	5,225	3,542
ITALY	—	—	—	6,500	7,500	12,925	29,261	70,768	24,520	39,475	27,650	41,780
LATVIA	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	9,908
POLAND	224	52	206	197	88	138	269	228	116	269	416	1,099
PORTUGAL	—	2,000	5,850	7,420	6,000	11,570	8,450	4,850	4,500	3,825	8,675	5,950
SLOVAKIA	584	676	803	1,414	707	1,179	867	785	841	654	1,159	751
SPAIN	57,780	69,890	51,801	54,187	43,580	51,916	72,077	98,846	22,919	23,038	31,375	31,393
SWEDEN	n/a	17,569	36,638	43,488	53,106	79,910	69,800	48,936	51,633	48,424	60,729	52,187
UK (regulated)	—	—	—	10,145	8,254	25,000	36,983	37,109	1,480	12,529	15,015	9,599
UK (non regulated)	12,675	25,813	31,673	110,761	22,177	900	—	—	—	—	—	—
AUSTRALIA	—	—	—	—	—	—	2,478	33,484	15,868	13,253	10,004	11,382
ICELAND	—	467	—	321	—	—	25	113	51	91	414	560
NORWAY	—	—	6,458	15,660	30,105	21,062	28,135	22,946	18,339	14,474	17,750	23,058
TURKEY	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	500
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:
none

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 Outstanding

As % of GDP, backed by Mortgages

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
AUSTRIA	1.6	1.5	1.5	1.7	1.9	2.6	5.6	5.4	5.8	6.8	8.0	8.8
BELGIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	2.1	2.6	3.7	4.0
CYPRUS	0.0	0.0	0.0	0.0	0.0	0.0	26.4	23.4	5.5	5.7	3.7	3.6
CZECH REPUBLIC	4.1	4.5	6.0	5.0	5.5	5.3	5.2	5.6	6.6	7.1	7.0	7.5
DENMARK	115.8	115.4	104.8	105.6	138.1	136.7	139.4	141.2	139.0	139.5	139.0	139.6
FINLAND	0.9	1.7	2.4	3.0	4.2	5.4	9.6	13.4	14.6	15.6	16.2	15.8
FRANCE	3.2	4.0	5.3	8.0	9.1	10.0	11.8	11.9	11.3	10.4	10.1	9.5
GERMANY	10.3	9.3	8.2	8.5	9.1	8.5	8.3	7.8	7.1	6.5	6.5	6.6
GREECE	0.0	0.0	0.0	2.1	2.7	8.7	9.5	9.4	9.2	8.2	2.8	2.5
HUNGARY	5.6	6.5	5.9	6.6	7.9	6.4	5.1	5.0	4.0	3.1	2.8	1.9
IRELAND	2.4	6.4	6.9	12.3	17.5	17.4	17.3	14.3	11.6	9.6	6.6	6.4
ITALY	0.0	0.0	0.0	0.4	0.9	1.7	3.1	7.2	7.6	7.6	7.4	8.3
LATVIA	0.4	0.4	0.4	0.4	0.5	0.4	0.2	0.0	0.0	0.0	0.0	0.0
LUXEMBOURG	0.0	0.4	0.4	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NETHERLANDS	0.4	1.3	2.5	3.2	4.5	6.4	8.1	9.3	9.3	8.9	9.0	9.7
POLAND	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.3	0.5
PORTUGAL	0.0	1.2	4.5	8.5	11.6	15.4	18.9	20.4	21.2	19.5	19.2	17.8
SLOVAKIA	4.0	4.9	4.9	5.4	5.6	5.1	5.3	5.3	5.5	5.2	5.3	5.2
SPAIN	16.1	21.3	24.7	28.2	31.2	31.8	34.5	39.1	32.6	27.2	23.5	20.9
SWEDEN	n/a	16.5	25.9	33.4	43.2	51.1	51.6	52.1	50.0	48.5	49.7	48.1
UK (regulated)	0.0	0.0	0.0	6.4	6.4	6.8	6.5	7.1	5.6	5.1	4.1	4.1
UK (non regulated)	1.4	2.5	3.8	4.0	5.3	4.3	3.4	1.8	0.9	0.7	0.3	0.0
AUSTRALIA	0.0	0.0	0.0	0.0	0.0	0.0	0.2	3.1	4.6	5.4	5.6	6.2
ICELAND	0.0	3.4	3.1	4.6	7.4	8.1	7.7	8.1	6.9	7.2	8.0	10.5
NORWAY	0.0	0.0	2.2	6.9	19.2	21.8	25.6	27.0	26.7	27.3	30.9	33.7
TURKEY	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.0
USA	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0

Sources:
European Covered Bond Council, Eurostat

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
- 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 21 and 26 for further notes

24. Total Residential Mortgage-Backed Securities (RMBS) Outstanding

EUR million

	2009	2010	2011	2012	2013	2014	2015	2016
AUSTRIA	2,174	2,099	2,015	1,869	1,815	1,702	1,576	1,438
BELGIUM	59,551	61,679	70,998	71,237	63,318	55,813	47,729	44,817
FINLAND	5,671	4,449	3,677	0	0	0	0	0
FRANCE	15,458	12,839	19,325	17,687	10,237	50,147	59,336	63,008
GERMANY	45,932	40,557	34,762	28,092	23,793	20,158	26,563	26,016
GREECE	10,143	6,785	6,311	6,422	4,274	3,658	2,600	1,315
IRELAND	68,754	68,900	59,508	51,183	37,626	36,159	31,532	30,282
ITALY	167,280	144,365	122,062	101,739	90,205	80,685	69,473	60,816
NETHERLANDS	275,066	290,052	287,326	269,518	250,142	239,768	209,590	192,470
PORTUGAL	39,681	43,186	37,800	29,149	27,621	26,051	22,736	19,237
SPAIN	192,173	191,241	171,914	127,685	118,040	122,570	118,604	126,112
SWEDEN	0	96	96	96	380	302	499	611
UK	507,528	455,517	409,738	301,776	254,807	217,984	160,668	146,197
RUSSIA	3,332	2,931	2,728	1,725	1,281	505	380	1,004

1) Time series breaks

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
- Please note that the conversion to euros was performed by AFME

Source:
Association for Financial Markets in Europe (AFME)

25. Total RMBS Issuances

EUR million

	2009	2010	2011	2012	2013	2014	2015	2016
BELGIUM	19,154	7,860	19,029	4,699	2,018	0	1,216	3,636
FRANCE	195	5,000	13,841	2,628	0	47,216	11,362	10,360
GERMANY	215	363	0	0	0	40	20,487	0
GREECE	1,410	0	1,750	1,343	0	0	0	0
IRELAND	13,869	4,157	0	890	1,021	2,072	206	4,377
ITALY	44,971	9,965	9,202	35,826	4,914	4,756	6,589	6,760
NETHERLANDS	40,523	124,093	82,945	47,196	39,462	14,231	19,359	32,380
PORTUGAL	8,585	9,352	1,340	1,107	1,373	0	1,192	0
SPAIN	25,831	18,215	14,094	3,302	7,322	17,321	9,566	20,337
SWEDEN	0	96	0	0	284	0	358	214
UK	70,536	87,149	80,782	40,075	8,399	25,201	30,687	41,630

1) Time series breaks
- All countries: 2007

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
- Please note that the conversion to euros was performed by AFME

Source:
Association for Financial Markets in Europe (AFME)

D — MACROECONOMIC INDICATORS

26. GDP at Current Market Prices

EUR million

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
AUSTRIA	253,009	266,478	282,347	291,930	286,188	294,628	308,630	317,117	322,539	330,418	339,896	349,344
BELGIUM	311,481	326,662	344,713	354,066	348,781	365,101	379,106	387,500	391,731	400,797	410,247	421,611
BULGARIA	23,853	27,211	32,449	37,200	37,318	38,231	41,292	41,947	42,012	42,762	45,287	47,364
CROATIA	36,508	40,198	43,926	48,130	45,091	45,004	44,709	43,934	43,487	42,978	44,068	45,819
CYPRUS	15,039	16,264	17,591	19,006	18,674	19,300	19,731	19,467	18,118	17,567	17,637	17,901
CZECH REPUBLIC	109,394	123,743	138,004	160,962	148,357	156,370	164,041	161,434	157,742	156,660	166,964	174,412
DENMARK	212,832	225,531	233,383	241,614	231,278	243,165	247,880	254,578	258,743	265,233	271,786	276,805
ESTONIA	11,262	13,522	16,246	16,517	14,146	14,717	16,668	17,935	18,890	19,758	20,252	20,916
FINLAND	164,387	172,614	186,584	193,711	181,029	187,100	196,869	199,793	203,338	205,474	209,511	214,062
FRANCE	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	2,147,609	2,194,243	2,228,857
GERMANY	2,300,860	2,393,250	2,513,230	2,561,740	2,460,280	2,580,060	2,703,120	2,758,260	2,826,240	2,923,930	3,032,820	3,134,070
GREECE	199,242	217,862	232,695	241,990	237,534	226,031	207,029	191,204	180,654	177,941	175,697	175,888
HUNGARY	90,590	91,399	101,692	107,637	93,809	98,323	100,820	99,086	101,483	104,953	109,674	112,399
IRELAND	170,216	185,061	197,293	187,687	169,704	167,124	173,070	175,753	180,209	193,160	255,815	265,835
ITALY	1,489,726	1,548,473	1,609,551	1,632,151	1,572,878	1,604,515	1,637,463	1,613,265	1,604,599	1,621,827	1,645,439	1,672,438
LATVIA	13,726	17,264	22,679	24,355	18,749	17,789	20,202	22,058	22,829	23,631	24,368	25,021
LITHUANIA	21,002	24,079	29,041	32,696	26,935	28,028	31,275	33,348	35,002	36,590	37,331	38,637
LUXEMBOURG	30,031	33,808	37,179	38,129	36,977	40,178	43,165	44,112	46,551	49,971	52,340	54,195
MALTA	5,142	5,386	5,758	6,129	6,139	6,600	6,831	7,156	7,631	8,443	9,273	9,896
NETHERLANDS	545,609	579,212	613,280	639,163	617,540	631,512	642,929	645,164	652,748	663,008	676,531	697,219
POLAND	246,201	274,603	313,874	366,182	317,083	361,804	380,239	389,369	394,721	410,990	430,038	424,269
PORTUGAL	158,653	166,249	175,468	178,873	175,448	179,930	176,167	168,398	170,269	173,079	179,504	184,934
ROMANIA	80,226	98,419	125,403	142,396	120,409	126,746	133,306	133,511	144,254	150,358	159,964	169,578
SLOVAKIA	39,348	45,530	56,242	66,003	64,023	67,577	70,627	72,704	74,170	75,946	78,686	80,958
SLOVENIA	29,235	31,561	35,153	37,951	36,166	36,252	36,896	36,003	35,917	37,332	38,570	39,769
SPAIN	930,566	1,007,974	1,080,807	1,116,207	1,079,034	1,080,913	1,070,413	1,039,758	1,025,634	1,037,025	1,075,639	1,113,851
SWEDEN	313,218	334,877	356,434	352,317	309,679	369,077	404,946	423,341	435,752	432,691	447,010	462,058
UK	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	2,580,065	2,366,912
EURO AREA 19	8,460,513	8,904,516	9,401,525	9,634,154	9,289,242	9,545,834	9,799,479	9,835,927	9,932,327	10,143,496	10,473,802	10,745,406
EU 28	11,590,675	12,255,716	12,983,723	13,055,042	12,297,722	12,817,574	13,192,861	13,448,863	13,558,848	14,010,925	14,728,435	14,824,759
AUSTRALIA	588,085	567,633	579,964	758,306	643,599	855,319	1,074,702	1,165,829	1,136,378	1,202,206	1,235,770	1,142,791
BRAZIL	755,811	841,033	949,042	1,218,527	1,157,170	1,653,100	2,021,950	1,868,416	1,793,058	2,022,892	1,656,703	1,704,000
ICELAND	13,438	13,629	15,566	10,787	9,228	10,009	10,541	11,065	11,647	12,953	15,134	18,130
JAPAN	4,031,034	3,439,922	3,067,227	3,619,967	3,631,392	4,265,902	4,758,837	4,701,541	3,738,465	3,993,685	4,025,973	4,685,878
NORWAY	248,332	275,290	293,128	316,814	278,386	323,587	358,248	396,678	393,397	375,894	348,332	335,035
RUSSIA	647,637	751,656	882,892	1,193,393	848,704	1,141,233	1,570,267	1,644,796	1,617,450	1,699,747	1,254,584	1,217,306
TURKEY	425,043	419,518	459,041	549,201	447,492	577,666	643,440	662,409	689,287	769,432	789,367	813,726
USA	11,099,200	10,520,796	9,834,682	10,575,973	10,008,843	11,199,201	11,993,142	12,244,395	12,103,196	14,325,923	16,567,142	17,616,071

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

27. Gross Disposable Income of Households

EUR million

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
AUSTRIA	161,071	168,692	176,572	181,866	182,485	183,692	189,085	196,195	196,963	201,114	204,403	212,173
BELGIUM	183,208	193,186	202,897	214,362	217,927	219,435	223,870	228,226	230,181	232,480	234,819	241,429
BULGARIA	14,201	16,144	18,376	22,208	22,802	22,940	24,449	24,742	25,373	23,554	24,288	24,888
CROATIA	23,338	25,034	26,505	29,193	29,082	29,533	29,606	29,404	28,624	28,574	38,473	38,557
CYPRUS	10,255	11,134	11,849	13,195	12,845	13,247	13,532	13,313	12,591	11,809	11,514	11,855
CZECH REPUBLIC	58,468	66,001	71,687	85,555	83,067	87,422	89,960	88,816	86,096	84,069	87,651	92,052
DENMARK	99,240	103,858	105,498	107,929	110,434	116,829	120,795	123,467	125,613	128,384	132,960	136,741
ESTONIA	5,940	6,945	8,310	9,412	8,552	8,493	9,249	9,814	10,136	10,860	11,332	11,974
FINLAND	88,726	92,410	97,727	103,375	106,157	110,416	115,207	118,536	121,939	122,713	124,458	126,066
FRANCE	1,139,296	1,191,393	1,253,515	1,292,871	1,295,767	1,327,486	1,354,440	1,362,501	1,367,331	1,378,898	1,399,431	1,428,213
GERMANY	1,560,094	1,594,486	1,626,612	1,666,687	1,653,881	1,693,870	1,746,060	1,791,315	1,822,156	1,865,435	1,923,629	1,982,687
GREECE	138,569	151,210	161,288	170,167	173,297	159,701	145,918	133,573	122,442	120,274	114,827	115,262
HUNGARY	53,760	53,016	57,669	59,518	53,288	54,832	58,216	57,776	58,385	58,822	59,605	62,726
IRELAND	79,582	85,763	92,939	98,502	91,223	87,460	84,938	87,569	87,149	90,400	95,254	99,006
ITALY	1,027,098	1,065,445	1,105,075	1,125,254	1,099,072	1,097,976	1,126,295	1,095,745	1,100,094	1,106,460	1,114,565	1,130,227
LATVIA	8,646	11,017	13,544	15,905	12,936	11,753	11,925	12,852	13,375	13,755	14,324	15,301
LITHUANIA	14,067	16,197	17,495	20,846	19,200	19,366	20,383	21,072	22,222	22,595	23,028	24,011
LUXEMBOURG	n/a	12,620	13,468	14,638	14,995	15,744	16,354	17,047	n/a	n/a	n/a	n/a
NETHERLANDS	278,255	286,853	299,173	303,807	303,818	305,193	312,078	313,461	316,442	317,030	327,228	334,573
POLAND	159,529	174,874	193,424	226,510	199,854	226,640	231,436	237,995	241,550	248,487	253,830	256,675
PORTUGAL	112,005	116,190	121,784	126,704	126,182	129,750	124,984	120,492	120,269	120,066	123,092	127,072
ROMANIA	49,886	59,300	76,535	86,251	73,086	76,422	76,615	73,860	101,505	108,417	117,259	124,400
SLOVAKIA	23,547	26,492	32,714	38,728	40,788	41,409	42,176	43,342	43,950	45,067	46,827	48,101
SLOVENIA	18,359	19,376	21,073	22,842	22,941	23,175	23,599	23,004	22,796	23,194	23,536	24,014
SPAIN	591,488	625,742	650,741	686,073	698,869	688,395	694,224	670,546	664,372	670,022	682,440	699,548
SWEDEN	146,061	154,693	165,655	168,782	159,754	183,295	204,594	221,179	227,930	225,022	226,378	231,669
UNITED KINGDOM	1,312,653	1,374,790	1,435,710	1,270,852	1,172,023	1,255,165	1,258,146	1,401,973	1,367,718	1,487,636	1,717,527	1,561,422
EURO AREA 19	5,464,180	5,687,903	5,917,017	6,109,174	6,080,475	6,132,032	6,249,976	6,265,127	6,300,231	6,375,047	6,502,759	n/a
EU 28	7,397,184	7,729,375	8,079,209	8,171,091	8,002,521	8,196,373	8,359,690	8,534,626	8,561,210	8,730,817	9,120,880	n/a
ICELAND	6,369	6,590	7,959	5,627	4,434	4,221	4,645	5,088	5,323	5,995	n/a	n/a
JAPAN	2,380,020	2,232,675	2,034,660	2,142,002	2,473,467	2,782,398	2,892,664	3,132,761	2,470,666	2,293,665	2,422,823	2,738,689
NORWAY	116,724	111,374	120,297	125,414	124,848	142,225	153,901	169,302	171,764	168,830	169,384	172,096
TURKEY	n/a	n/a	n/a	n/a	317,720	402,592	414,031	465,628	498,142	492,414	536,097	n/a
UNITED STATES	7,733,320	8,180,830	7,827,780	7,634,190	8,015,200	8,669,480	8,672,460	9,872,680	9,564,810	10,052,340	12,490,690	13,079,970

Sources:
European Commission (AMECO Database), National Statistical Offices

1) Time series breaks:
Croatia (2016) data from the ECB

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

28. Population

18 years of age or over

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
AUSTRIA	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	7,179,545
BELGIUM	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	8,905,031	8,952,757	9,012,839
BULGARIA	6,329,442	6,308,770	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	5,963,884
CROATIA	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	3,443,950
CYPRUS	552,932	564,986	579,869	598,457	619,004	640,785	661,878	684,689	690,884	687,113	677,766	679,378
CZECH REPUBLIC	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	8,657,996
DENMARK	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	4,539,791
ESTONIA	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	1,070,126	1,068,953
FINLAND	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	4,414,248
FRANCE	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	51,312,166	51,697,009	51,931,888
GERMANY	67,672,014	67,880,591	68,072,756	68,247,754	68,318,799	68,320,564	66,963,546	67,184,948	67,432,859	67,691,934	68,085,517	68,850,007
GREECE	8,939,844	8,988,268	9,037,249	9,077,944	9,119,797	9,152,259	9,165,757	9,131,374	9,063,145	9,002,883	8,958,738	8,907,030
HUNGARY	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	8,114,580
IRELAND	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	3,511,220
ITALY	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	50,657,518
LATVIA	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	1,616,659
LITHUANIA	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	2,370,357
LUXEMBOURG	359,321	365,836	371,924	378,602	387,286	394,805	403,289	415,783	426,500	437,663	449,861	461,711
MALTA	314,365	318,159	321,101	325,462	330,123	334,759	337,240	340,819	345,286	349,724	353,880	358,931
NETHERLANDS	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	13,562,539
POLAND	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	31,120,076
PORTUGAL	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	8,539,134
ROMANIA	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	16,038,136
SLOVAKIA	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	4,426,496
SLOVENIA	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	1,701,967
SPAIN	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	38,098,795
SWEDEN	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	7,825,940
UNITED KINGDOM	46,926,251	47,377,251	47,817,442	48,271,326	48,704,715	49,140,673	49,605,268	50,010,040	50,341,143	50,705,117	51,152,202	51,576,620
EURO AREA 19	264,722,532	266,468,972	268,217,167	270,231,250	271,743,269	272,697,912	272,236,147	273,066,241	273,812,168	275,191,424	276,132,367	277,349,215
EU 28	395,882,459	398,496,350	400,908,992	403,541,627	405,895,887	407,271,568	407,400,128	408,699,198	409,895,868	411,670,457	413,074,656	414,630,188
ICELAND	210,643	216,428	223,902	230,418	233,851	231,973	233,363	234,904	237,235	240,894	244,554	248,305
NORWAY	3,463,706	3,491,469	3,527,520	3,576,799	3,632,576	3,683,633	3,739,966	3,802,033	3,862,914	3,917,375	3,974,290	4,016,446
RUSSIA	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	n/a
TURKEY	44,459,199	45,378,517	46,288,945	47,037,840	47,765,432	48,693,930	49,792,317	50,790,105	51,665,075	52,602,800	53,591,387	54,590,569
USA	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	249,454,440

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

29. Bilateral Nominal Exchange Rate with the Euro

END OF THE YEAR	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
EU 28												
Bulgarian lev	1.956	1.956	1.956	1.956	1.956	1.956	1.956	1.956	1.956	1.9558	1.9558	1.9558
Croatian kuna	7.372	7.350	7.331	7.356	7.300	7.383	7.537	7.558	7.627	7.658	7.638	7.560
Czech koruna	29.00	27.49	26.63	26.88	26.47	25.06	25.79	25.15	27.43	27.735	27.023	27.02
Danish krone	7.461	7.456	7.458	7.451	7.442	7.454	7.434	7.461	7.459	7.4453	7.4626	7.434
Hungarian forint	252.9	251.8	253.7	266.7	270.4	278.0	314.6	292.3	297.0	315.54	315.98	309.8
Polish zloty	3.860	3.831	3.594	4.154	4.105	3.975	4.458	4.074	4.154	4.2732	4.264	4.410
Romanian leu	3.680	3.384	3.608	4.023	4.236	4.262	4.323	4.445	4.471	4.4828	4.524	4.539
Swedish krona	9.389	9.040	9.442	10.87	10.25	8.966	8.912	8.582	8.859	9.393	9.190	9.553
UK pound sterling	0.685	0.672	0.733	0.953	0.888	0.861	0.835	0.816	0.834	0.7789	0.73395	0.856
NON-EU												
Australian dollar	1.6109	1.6691	1.6757	2.0274	1.6008	1.3136	1.2723	1.2712	1.5423	1.4829	1.4897	1.4596
Brazilian real	2.7462	2.8141	2.5914	3.2436	2.5113	2.2177	2.4159	2.7036	3.2576	3.2207	4.3117	3.4305
Icelandic krona*	74.79	93.75	91.64	169.33	179.76	153.78	158.98	168.89	158.29	154.31	141.38	119.15
Japanese yen	138.9	156.93	164.93	126.14	133.16	108.65	100.20	113.61	144.72	145.23	131.07	123.40
Norwegian krone	7.985	8.238	7.958	9.750	8.300	7.800	7.754	7.348	8.363	9.042	9.603	9.086
Russian rouble	33.92	34.68	35.99	41.28	43.15	40.82	41.77	40.33	45.32	72.337	80.67	64.30
Turkish lira	1.592	1.864	1.717	2.149	2.155	2.069	2.443	2.355	2.961	2.832	3.177	3.707
US dollar	1.180	1.317	1.472	1.392	1.441	1.336	1.294	1.319	1.379	1.2141	1.089	1.054

YEARLY AVERAGE	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
EU 28												
Bulgarian lev	1.956	1.956	1.956	1.956	1.956	1.956	1.956	1.956	1.956	1.956	1.956	1.9558
Croatian kuna	7.401	7.325	7.338	7.224	7.340	7.289	7.439	7.522	7.579	7.634	7.614	7.5333
Czech koruna	29.782	28.342	27.766	24.946	26.435	25.284	24.590	25.149	25.980	27.536	27.279	27.034
Danish krone	7.452	7.459	7.451	7.456	7.446	7.447	7.451	7.444	7.458	7.455	7.459	7.4452
Hungarian forint	248.050	264.260	251.350	251.510	280.330	275.480	279.370	289.250	296.870	308.710	310.000	311.44
Polish zloty	4.023	3.896	3.784	3.512	4.328	3.995	4.121	4.185	4.198	4.184	4.184	4.3632
Romanian leu	3.621	3.526	3.335	3.683	4.240	4.212	4.239	4.459	4.419	4.444	4.445	4.4904
Swedish krona	9.282	9.254	9.250	9.615	10.619	9.537	9.030	8.704	8.652	9.099	9.354	9.4689
UK pound sterling	0.684	0.682	0.684	0.796	0.891	0.858	0.868	0.811	0.849	0.806	0.726	0.81948
NON-EU												
Australian dollar	1.632	1.6668	1.6348	1.7416	1.7727	1.4423	1.3484	1.2407	1.3777	1.4719	1.4777	1.4883
Brazilian real	3.036	2.7333	2.6633	2.6737	2.7674	2.3314	2.3265	2.5084	2.8687	3.1211	3.7004	3.8561
Icelandic krona	78.210	87.920	87.690	127.480	172.730	161.950	161.490	160.930	162.200	154.850	144.390	131.010
Japanese yen	136.850	146.020	161.250	152.450	130.340	116.240	110.960	102.490	129.660	140.310	134.310	120.2
Norwegian krone	8.009	8.047	8.017	8.224	8.728	8.004	7.793	7.475	7.807	8.354	8.9496	9.2906
Russian rouble	35.188	34.112	35.018	36.421	44.138	40.263	40.885	39.926	42.337	50.952	68.072	74.1446
Turkish lira	1.677	1.809	1.787	1.906	2.163	1.997	2.338	2.314	2.534	2.907	3.0255	3.3433
US dollar	1.244	1.256	1.371	1.471	1.395	1.326	1.392	1.285	1.328	1.329	1.110	1.1069

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

** For Exchange Rates

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, PERCENT

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.
United Kingdom: 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 available 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, PERCENT

Total Outstanding Residential Loans is provided by the European Mortgage Federation (Table 1). GDP at current prices is provided by Eurostat and the World Bank (Table 26).

8. TOTAL OUTSTANDING RESIDENTIAL LOANS TO DISPOSABLE INCOME OF HOUSEHOLDS RATIO, PERCENT

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) and National Statistical Offices (Table 27).

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 28).

B — THE HOUSING MARKET

10. OWNER OCCUPATION RATE, PERCENT

Distribution of population by tenure status – owner. *Source: Eurostat [ilc_lvho02].*

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. 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.

17. 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 m2 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.
United Kingdom: 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.*
United States: Data on house prices, in percentage change over previous period. *Source: OECD.*

18. 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.

Belgium: Index for Brussels has been calculated on the basis of the Notary Barometer.
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 m2 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*
United Kingdom: All dwellings. *Source: Office for National Statistics*
NON EU 28
Australia: Residential Property Price index. *Source: Australian Bureau of Statistics*
Brazil: The Financed Housing Collateral Value Index – IVG-R measures the long term trend of the household's houses in Brazil. The index is calculated using the evaluation data of housing loans that are granted to natural persons and collateralized by financed real estate. The IVG-R is constructed using information from eleven Brazilian metropolitan regions : Belém, Belo Horizonte, Brasília, Curitiba, Fortaleza, Goiânia, Porto Alegre, Recife, Rio de Janeiro, Salvador e São Paulo.
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*
United States: *Source: Federal Housing Finance Agency*

19. CHANGE IN NOMINAL HOUSE PRICES, ANNUAL % CHANGE

The annual percentage change computed using the house price indices found in Table 16.

20. 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.

24. 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

26. 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.

27. 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).

28. POPULATION OVER 18 YEARS OLD

This statistic takes into account the residents older than 18 years of a given country. The minors of age have been excluded in order not to underestimate the actual per capita outstanding mortgage lending presented in table 9. The sources used are Eurostat and the US Bureau of Census

29. BILATERAL NOMINAL EXCHANGE RATE WITH THE EURO

For the outstanding residential and non-residential loans the End-of-Year Exchange rate has been taken into account while for the gross lending figures and for the average amount of mortgage the average Exchange rate was used. The source is the Statistics Data Warehouse of the European Central Bank. For the Exchange Rate with the Icelandic krona Bloomberg has been used.

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