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HYPOSTAT 2019

HYPOSTAT **2019** | A REVIEW OF EUROPE'S MORTGAGE AND HOUSING MARKETS

European Mortgage Federation

September 2019

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Dear Reader,

One of the key achievements of the Juncker Commission was to provide a substantial push to The Capital Markets Union (CMU) initiative, by delivering all measures it had committed to in the original plan of 2015. The CMU represents one of the key post crisis policy action of the European Union (EU) aimed at boosting real economic growth and further deepening the integration of European capital markets. Mortgage markets are a key driver of macroeconomic growth and an essential link between financial markets and the real economy and, as such, are at the heart of the CMU initiative. Accounting for nearly 46% of EU GDP in 2018, mortgage markets can be considered to be of systemic importance in the EU financial and social landscape. Mortgage markets not only play a fundamental role as mechanisms of transmission of monetary policies but they crucially facilitate access to homeownership, therefore playing a vital role in the socio-political-economic life of EU citizens. In fact, from a micro perspective point of view, mortgages are embedded in the daily lives of 26.5% of Europeans as a crucial financial instrument which provides a social lift for their families and have been a crucial financing tool for the best part of 42.5% of Europeans who currently own their home without a mortgage.

Historically, on the Old continent, the efficient use of private capital market resources has mitigated the use of public resources in housing policies, enabling dedication of public finances to welfare policies and, subsequently, securing the smooth functioning of mortgage systems and preventing major systemic crises. In this context, the European Mortgage Federation has always sought to enhance the macro-prudential characteristics of mortgage markets and develop and foster market best practices and transparency in order to facilitate financial stability and secure the access to credit for citizens. The EMF is committed to acting as a conduit at EU level between the finance and the housing "worlds" which must be brought closer together in order to achieve not only affordable housing solutions, but also energy efficient ones in light of the EU's energy savings ambitions.

Enhancing transparency and delivering reliable information is the main path to securing resilience in the system and facilitating investor due diligence. The continuous improvement of market best practices should be based on the lessons learned from the past. The analytic work undertaken by the European mortgage Industry in recent years has helped to develop a common understanding of the European post crisis landscape. This qualitative and quantitative analysis in turn helps us to better assess the current challenges and draw 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 in these markets, as well as the behaviour of European lenders and borrowers, and highlight some of the driving forces behind these markets, whilst also shedding some light on the challenges which lay ahead.

Against this background, we are delighted to present you the 2019 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 the 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 EU and also eleven jurisdictions beyond the EU's borders. 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, this year's Hypostat includes three external articles focusing on key topics which have an impact on these markets:

After last year's introductory article on social housing published in Hypostat, this year the Secretariat has drafted, based on the valuable contributions of the EMF Research & Data Committee members together with mortgage and housing market experts across the continent, an article on the complex concept of affordable housing with a particular focus on the different types of funding used. Despite the challenge of finding a common understanding of what to consider 'affordable housing', it is possible to identify a variety of schemes and incentives in EU Member States depending on, among others, the availability of public funds and on the share of affected people. Public authorities continue to dominate financing of this sector, but there a growing number of mortgages are provided by the private sector for this purpose. This is expected to gain momentum in the near future as a result of the ever-decreasing availability of public funds and the worrisome scarcity of affordable houses available especially in the cities.

With a small, though not negligible, share of non-institutional landlords renting out dwellings, the buy-to-let market especially in some countries is an interesting reality to study in order to better understand what dynamics are present both in terms of average portfolio size of buy-to-let landlords and their way of financing. For this reason a comparative study on the Dutch and English buy-to-let market has been included in the current edition t in order to shed some light on this often overlooked segment of the housing and mortgage market.

When looking at the agenda of the President of the Commission-elect Ms von der Leyen, at the time of writing, one of the key elements of the policy plan for her tenure is the importance of sustainable and green investment. Adding to this the fact that the EMF has become a primary advocate of energy efficient mortgage finance by coordinating the development of an energy efficient mortgage product, it makes sense for the third article of this year's Hypostat to focus on an update on the latest state of play of the Energy Efficient Mortgage Initiative and the next concrete steps, including an Energy Efficient Mortgage Label. The latter will be instrumental in aligning the definition of an energy efficient mortgage with high quality standards as well as securing regulatory and market recognition of energy efficient mortgages as a new asset class.

The EMF-ECBC, also on behalf of the EMF Research & Data Committee and its Chairman, Paul de Vries, would like to thank all contributors for making the publication of Hypostat possible.

We hope you will find this publication interesting and useful.

Sincerely,

Luca BERTALOT
EMF-ECBC Secretary General


PETER HERTZ

MACROECONOMIC SITUATION

- 2018 was the second consecutive year in which all European countries experienced positive GDP evolution. Despite differences among countries remaining, the average dispersion slightly decreased with respect to 2017.
- Overall GDP growth for the Euro area was 2.0% in 2018, a slower rate than that recorded in 2017. This positive evolution helped to improve the health of public finances, the share of debt to GDP decreased in all the EU countries.
- Labour market conditions continued to improve, and unemployment decreased for the second consecutive year in all countries. Furthermore, convergence continued to increase with those countries with lower GDP experiencing higher growth and faster unemployment recovery.
- Inflation grew by 1.9% a figure closer to the 2% target identified by the ECB and the highest figure since the peak of 2012.

HOUSING MARKET

- The house price index in 2018 increased by 6.4%, confirming the growth rate of 2017 and signalling a deceleration from the steep increases experienced in previous years. Despite differences among countries, 80% have already recovered pre-crisis levels.
- House prices in the capital cities were average across Europe around 10% higher than the respective country. Also here a great deal of country heterogeneity can be observed, ranging from over 40 pps price increases in Amsterdam with respect to the Netherlands, to Lisbon, which increased by over 10 pps less than Portugal.
- Demographic change seen in the capital cities was also in general positively correlated to house prices with some exceptions.
- Affordability presents different trends depending on the tenure status of the occupier, with those tenures with a mortgage being less affected by housing cost overburden and those paying rent at market prices struggling the most. Also, differences in affordability trends between the capital and the rest of the country were observed, with countries experiencing affordability deteriorations or improvements to varying degrees.
- Investment in construction remained below pre-crisis levels but experienced its 5th consecutive year of growth increasing by 3.2% with respect to the previous year. However, supply is still insufficient in many countries with the number of permits issued 34% lower in 2017 than the long-term average. Finally, a 1.3% increase in the number of transactions was recorded in aggregate terms.

MORTGAGE MARKETS

- This year, with a focus on homeownership and indebtedness, it is possible to discern how mortgage owners have increased with respect to 2007 in aggregate terms and to observe significant heterogeneity among countries, ranging from an almost 8 pps contraction in Ireland and the UK to an increase of 21 pps in Poland.
- Moreover, both levels and evolution of homeowners in the different income classes present heterogeneous pictures. In aggregate terms, considering that mortgage holders at risk of poverty are fewer in percentage terms than their more affluent counterparts, over the last ten years owners with a mortgage increased in aggregate terms, while those without a mortgage decreased.
- Regarding mortgage per capita indebtedness, figures showed that in 2018 in Europe there was a 2.7% increase with respect to 2017, amounting to EUR 17,404 per European adult. At a national level, Luxembourg, Denmark and Sweden were those with higher rates while Romania or Bulgaria were at the other end of the spectrum with values under EUR 1,000. Similarly, the outstanding mortgage to GDP ratio presented an heterogenous picture, with overall outstanding mortgages accounting for 45.7% of continental GDP.
- Total outstanding lending in the EU in 2018 grew by 2.93% with respect to the previous year. The Euro area outstanding mortgage market recorded a slightly higher increase of 3.15% on a yearly basis. Leaving aside exchange rate fluctuations, outstanding residential lending increased by EUR 206 bn, reaching EUR 7.25 tn
- The EU mortgage market is dominated by five countries: the UK, Germany, France, the Netherlands and Spain accounted for 72% of the overall outstanding residential mortgages in the EU in 2018, as was the case in 2017.
- Despite overall growth, some countries still experienced contractions in their mortgage markets as was the case in Greece, Spain and Portugal.
- The decreasing trend in interest rates reversed compared to previous years, and increased from 2.4% to 2.5%, marking the first increase in interest rates in a decade.
- 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 mix. Taking into consideration the countries for which we have information in this area, around 28% of gross new issuance were variable interest rate loans, 4 pps more than in 2017.
- The general tendency towards fixed rates from past years seems to be reversing as consumers anticipate an increase in interest rates in the near future.
- In the policy area, several jurisdictions introduced macroprudential measures in order to tackle Loan-to-Value, Debt-to-Income, Debt-Service to income limits or implemented stricter amortisation requirements in an attempt to influence the current dynamics and cool down the market.

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 2019", focuses on developments till early 2019[1]. In the Statistical Tables, data is presented in EUR. This may, however, introduce exchange rate distortions for countries outside the euro area. Please see the exchange rates used in this edition in Table 30 of the Statistical Tables section. Finally, although Hypostat aims to publish consistent data across countries and over time, not all data can be fully compared between countries, owing to some methodological differences present at the source. The EMF-ECBC strives, through Hypostat, to provide a comprehensive and comparable source of data and information on the mortgage and housing markets of the EU (and beyond). For further information on the definitions and sources used, please refer to the Annex: "Explanatory Note on Data".

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

Q1 2019	first quarter of 2019
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".

The funding of affordable housing in Europe

By the EMF-ECBC Secretariat

Following the introductory article on social housing published in last year's Hypostat, this year we aim to shed some light on the complex concept of affordable housing in Europe, with special attention on the different types of funding used.

With a widespread trend of increasing housing prices throughout the continent and the lack of affordable housing solutions especially in the major cities, an ever growing part of the population is finding it more and more difficult to take their first step on the property ladder or more generally to find a decent dwelling to consider home. In this context affordable housing is a topic that is at the top of most political agendas and occupies the headlines of the main publications. The European Commission underlined the relevance of this topic in its 2019 Annual Recommendations to Member States (CSRs) published last June[1], in which it points to the lack of affordable housing some jurisdictions are suffering, and the need to implement policies for its promotion and development.

In this context, the European Mortgage Federation (EMF) has taken a closer look at how affordable housing in Europe is funded and, in particular, at what the role of private funding is in the sector.

For this exercise the EMF has collected feedback from 11 EU Member States in four main areas: a general overview of affordable housing per country, the rationale of investing in affordable housing, the amount of loans or investment in projects aimed at housing affordability and the credit risk assessment of these types of loans.

WHAT IS AFFORDABLE HOUSING?

First of all, it is important to note that currently no definition of affordable housing exists at European level which presents a challenge when defining the scope of what we understand by this concept and determining the coverage of the present study. Therefore, with a view to being as inclusive as possible and to allowing the mapping of all the different possibilities, we understand affordable housing as either social housing, affordable rental housing and/or affordable home ownership, as can be seen under Figure 1, which was agreed by the Housing Partnership Action Plan. This approach seeks to reflect the fact that affordable housing is a culturally specific and a context dependent matter.

Despite the lack of a common definition at European level, some countries have developed certain guidelines or parameters that allow them to classify certain schemes, measures and property structures as affordable housing.

MAP 1 | PARTICIPANT COUNTRIES IN THE STUDY

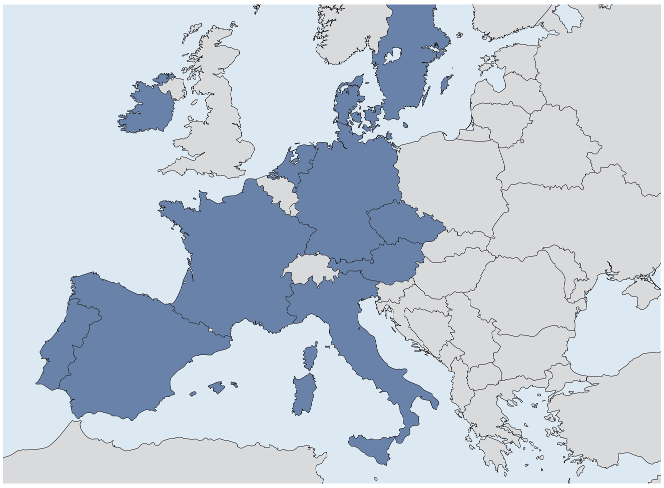
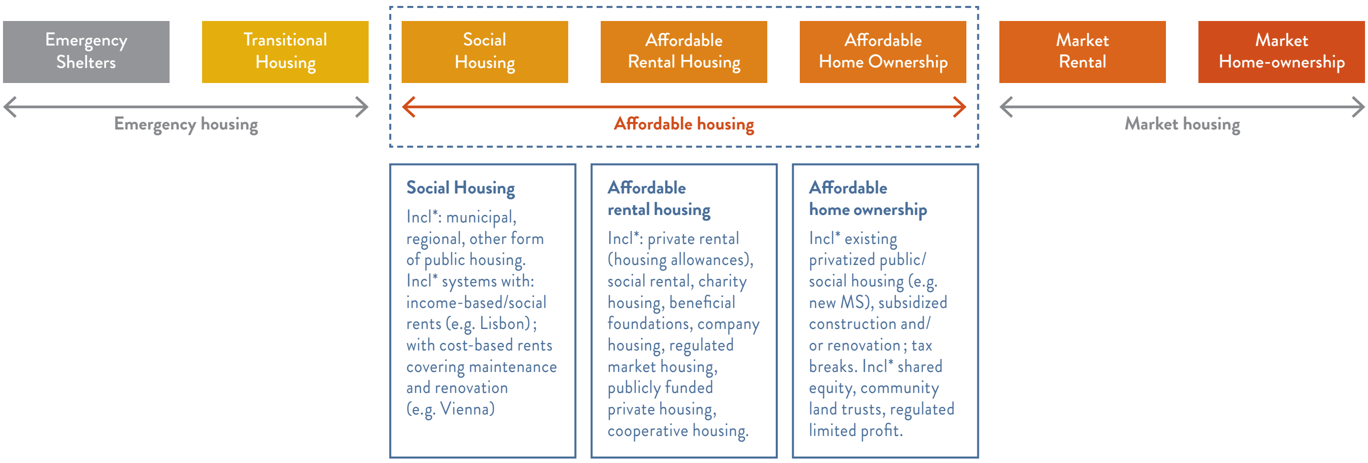


FIGURE 1 | THE HOUSING CONTINUUM



Note 1. The Partnership's work focuses on affrodable housing encircled with the dotted green line.

Note 2. Incl: Including but not limited to. The partnership considers "affrodable housing" as including a broad range of options, examples are presented in the boxes above. In order to signify that there may be more note "incl*"is added.*

[1] European Commission (2009). European Semester: Country Specific Recommendations. Retrieved from https://ec.europa.eu/info/publications/2019-european-semester-country-specific-recommendations-council-recommendations_en

As a general feature of the various schemes, an income and/or property value ceiling is usually defined, within which a potential applicant and property are considered eligible. This is the case in **Ireland** where, despite the lack of formal definition, social housing is characterised by submission to local authorities management and certain income limits, i.e. in the Dublin City Council the net income of the adult to be elegible must be under EUR 35,000. On top of the income requirements, applicants must be in genuine need of housing and unable to afford or to provide accommodation from their own resources and be 18 years of age or older. When it comes to affordable housing in the form of homeownership, different criteria apply. The legislation for such schemes states that mortgage payments should not consume more than 35% of the net annual household income, with a 90% loan-to-value ratio, and be based on the average purchase price a first-time buyer would pay in an administrative area. Local authorities provide purchasers with a discount of up to 40% of the property market value, which they retain as equity in the property. The purchaser must eventually repay the local authority stake in full. In the **Netherlands**, similar criteria apply. The so-called Rent Liberalisation threshold determines whether a house falls under social housing or not. The current threshold (for 2019) is EUR 720 in order to determine the maximum rent a point system based upon the quality of the house and its surroundings is used. On top of the requirement of being under this threshold to be eligible an income limit also applies, establishing a maximum gross income of EUR 38,035.

Likewise in **France**, there is a lack of an agreed definition, but income and composition of the household requirements apply as eligibility criteria for rental as well as affordable homeownership housing.

In **Austria** there are various alternatives to the private market, such as social and affordable housing provision, however, no definition for these concepts is in place. As is the trend in Europe some criteria must be met regarding the type of household or income to be eligible for these housing programmes.

On the contrary, in **Denmark** there is no income ceiling for beneficiaries, vacant units are assigned by housing associations on the basis of time on the waiting list, but municipalities have the right to assign tenants to at least 25% of vacant housing association units.

Finally, in **Germany** a definition does not exist either, however different policy instruments are in place aimed at the promotion of affordable housing mainly at a Federal State level, the social protection of low-income households and the provision of programmes to cover direct and indirect housing costs and, finally, the protection of tenant households through general rental law regulations against arbitrary dismissals and excessive rent increases.

Overall, despite the lack of a common definition at European level, we can observe that all countries have in place different schemes with similar characteristics, mainly focused on making rental and homeownership affordable for those individuals who are below a certain income limit and which are in need of a place to live. In the next section, we look more closely at these different schemes and the type of housing that is offered in the different jurisdictions.

AFFORDABLE HOUSING, MORE THAN SOCIAL HOUSING

All countries in the sample have in place at least some type of affordable housing, which in many jurisdictions includes also social housing programmes. In this sense, it is important to note that countries reporting having different types of affordable housing, in addition to social housing. Despite the fact that often these concepts -affordable and social- are used interchangeably, it is important to remember that affordable is a much broader concept than social and, therefore, this type of housing opens the door to different ways of helping citizens to access housing.

In **Austria** the main programmes to boost house affordability are the so called provision of municipal housing and LPHA (Limit Profit Housing Associations) housing, the first can be considered social housing and the second another kind of affordable housing, but not necessarily social. Similarly in the **Czech Republic** the main type of affordable housing is the provision of dwellings for renting by municipalities with rents well under those provided by the market. Moving north, in **Denmark** rent control for residential tenants and individual housing allowances is also in place, both considered affordable housing schemes. In Central and Southern Europe, several different programmes to promote affordable housing are in place. For example, in **France** there is so-called "Intermediate housing", a form of affordable housing between social housing and market housing, in which rental prices are also capped and access to which is targeted at middle income families. In **Spain** affordable housing is recognised as a constitutional principle and therefore the support to its development is provided in several ways and not only through social housing. On the one hand, access is promoted through the so-called Publicly Protected Housing (Viviendas de Protección Pública, VPP), which sets limits on sale and rental prices and defines the type of eligible housing, and also includes income requirements. On the other hand, the Housing Schemes introduced in 2013, which will be fully addressed later in the article, support mortgage lending in order to make ownership more affordable. In **Italy** different forms of affordable housing apart from the traditional model of social housing are present too, for example, rent limits or fixed price dwellings, both will be examined in more detail in the next section. Likewise in **Ireland** affordable rental properties are provided by approved housing bodies, non-profit organisations assisted by local authorities that provide affordable rents well under market prices. At the same time, these bodies include housing co-operatives where members/tenants actively participate in setting policies and making decisions in the area.

Finally, in **Sweden** there are no specific social housing programmes, however, since all rental prices are controlled by the government, rental housing is generally deemed to be affordable.

WHICH ARE THE MEASURES IN PLACE TO ADDRESS HOUSING AFFORDABILITY?

As we have seen housing affordability is a multidimensional issue, therefore, solutions and policies can also take several forms as can be inferred from what has been reported so far. Although there is no common approach in Europe towards addressing and fostering housing affordability, which is in the hands of national or even regional or local actors, the policies applied present some similarities. Subsidies, tax breaks or preferential financing conditions are extended either to foster the construction of affordable housing or to support a certain part of the population, such as young couples, first-time-buyers or low-income households. As far as the rental market is concerned, affordability is fostered through rent controls or rent-caps until certain conditions are met. In order to better map the situation across Europe, the following section presents the most relevant measures that are in place or have been adopted by the different EU countries in this area.

In most of the countries, there is some type of public subsidy scheme for housing as a way of promoting affordable housing. In the **Czech Republic**, three different types of subsidies can be found, namely, subsidies for the construction and reconstruction of social housing, loans with subsidised advantegous conditions for young individuals for which the cost of housing is relatively higher, and welfare benefits to cover some of the housing costs for certain parts of the population.

In **Austria** similar measures are in place. The country has had in place programmes to address house affordability since 1979 when the Limited-Profit Act was introduced and regulated LPHAs were created. The latter are entities that aim to make housing affordable whilst nevertheless being part of the private market. LPHAs are characterised by several principles such as the cost coverage principle, the limitation of profit principle, the tie-up of assets principle, the limited field of action and the obligation to build. On top of the LPHAs, which are part of the private market, the public sector also participates directly in the market through the provision of subsidies which are transferred from the federal government to the Länder. These subsidies have in the last years particularly focused on the stimulation of supply in the form of soft loans and annuity grants for construction and reconstruction. Finally, housing allowances are also provided as a complement to the previous programes by the State to certain citizens.

In this same context, in **France** the State regulates which conditions should be met to benefit from the public schemes in place as mentioned earlier. These conditions are presented according to different income levels and they are composed of four different types of aid. The first category are subsidies related to social rental properties within the HLM (Habitation à Loyers Modérés) programme which aims to provide low rent dwellings and promote diversity, and which is led by regulated non-profit companies dedicated to promote social housing for rental and aduisition purposes. The programme consists of a significant package of benefits which includes: reduced VAT; access to discounted or reserved land; access to low interest rate loans provided by the Caisse des Dépôts through the so-called “Fonds d’Epargne”; and temporary (for 25 years) exemption from property tax. The second set of benefits includes the same benefits as the first one, however, it is addressed to help companies with their rental costs and the propterty tax exemption is only applicable for 15 years. On top of these two programmes, the French State provides a programme of intermediate rental for individuals which gives beneficiaries a special discount on income tax (“Amortissement Pinel”) for private landlords. Finally, there are four types of benefits for home ownership, namely: PTZ, Prêt Taux Zero, which consists of no interest loans for part of the total purchase price for first time buyers with low or intermediate income; PAS, Prêt Accession Sociale, which is a guarantee for banks rather than owners in order to promote the provision of credit for certain parts of the populations. Those who benefit from this plan may claim part of the loss if any. There are State guarantees via a special fund (fonds de garantie de l’accession sociale) which combines support from the lender and the State; the PSLA (Prêt Social de Location Accession) which allows those renting to buy the property after a certain period of time has elapsed. Under this programme the developer is usually an HLM company and therefore it pays reduced VAT and has access to low interest rate loans, meaning the borrower can also take advantage of these benefits; finally, a new scheme has just been introduced, the BRS (Bais Reel Solidaire), which is based on the principle of community land trust.

In **Denmark** social housing consists of rents at cost price which are provided by non-profit housing associations for which there is no income ceiling for beneficiaries. The LTV for mortgage loans for social/public housing is fixed at 80% as for conventional loans, but in these particular cases the association covers the remaining costs. Under this scheme, when the project is subsidised, it is possible to cover between 86-90% of the costs as a result of a municipal guarantee. In other words, the municipality provides a loan equivalent to 8-12% and the tenants cover the remaining 2%. There are also other forms of affordable housing, different form social housing, such as a programme of rent control for residential tenancies. These control measures were established in the Rent Act and the Housing Regulation Act in which the maximum price for renting as well as the mandatory formal procedures to be followed are set. The rules vary and they are different according to certain aspects, as age and location of the property. The main rule that must be accomplished is the creation of a tenancy agreement for an undefined period of time which cannot be terminated unilaterally by the landlord. Furthermore, each municipality establishes its own Rent Assessment Committee that resolves disputes between landlords and tenants, including disputes concerning determination of rent and rent adjustment. Another measure introduced by the Danish Government is the provision of individual housing allowances from municipalities to give support to tenants in the repayment of the loan.

In **Germany** the measures to provide affordable housing are focused on the construction of social housing and the facilitation of financial support for tenant households. In this context, a social rental housing programme provides affordable housing as well as subsidies for low-income families to cover part of their housing expenses. Further measures for households’ protection are the tenancy law regulations which limit rent increases in existing contracts by way of an annual cap or the opportunity given by municipalities to reduce the increase in new lease contracts for existing dwellings. The latter, if there are frictions in the market, limits the rent-level for new lease contracts to 10% above the level of existing rental contracts for similar dwellings. Moreover, when it comes to Owner Occupied Housing the German government has also put in place a specific plan, “Baukindergeld”, consisting of a grant scheme for families with children who aim to build or purchase a dwelling for owner occupation. This subsidy is granted to first time buyers whose incomes do not exceed a certain ceiling (taxable annual household income of a maximum of EUR 90,000 for families with one child plus EUR 15,000 for each additional child). The Baukindergeld has been in place since September 2018 and some estimates suggest that up to 200,000 families will benefit from it. Apart from this specific programme, the State supports house ownership affordability through a housing premium and capital-forming benefit schemes in order to help low-income households to save for the purchase of a home. Besides the State, the Promotional Bank of the Federal Republic of Germany also plays an important role in the access to housing since it offers interest-subsidised loans and repayment subsidies for home ownership and also for energy-efficient constructions and renovation of existing properties. Regional bodies are also involved in the promotion of affordable housing with their own home ownership programmes such as building subsidies or the provision of land to hosueholds, measures that vary considerably among states. In a nutshell, about one fifth of the purchasers of owner-occupied property use some kind of public support measure, not including those who have benefited from the programme launched in September 2018.

In **Ireland** a measure was introduced in the so-called rent pressure zones in 2016 where the rise of rents has been limited to 4% per annum. Dublin city and county, as well as large urban areas in twelve other counties have been designated as rent pressure zones. Another supporting measure is the provision of subsidies for rent to those with long-term housing needs, subject to rent limits and a contribution by the tenant to the local authority that is linked to the tenant’s income and ability to pay.

In **Italy** the traditional model to promote affordable housing through social housing was pursued for many years, based on the idea that the only way to provide social housing is when the government plays the roles of both planner and executor. In this model, three types of tools were used, namely, subsidies for the renting of public social housing, contributions provided to first time buyers in the form of tax exemptions and grants to repay mortgage interest, and, finally, conventions or agreements that established the price of certain houses at a break-even point. Following this idea and since the postwar period, the most significant social housing programme has been the INA Plan and Gescal Plan, which aimed to increase employment and development throught the provision of housing to workers. The original INA plan facilitated the construction of over 350,000 houses from 1949 to 1963. The Gesca plan continued with the INA-Casa Plan which introduced new financing instruments. Later, the House Reform Law introduced the "Ten year residential housing plan" which was led by the "Instituto Autonomo per le Case Popolari". The plan consisted of a set of measures to support the acquisition of land for social housing and was entirely supported by public funds. This latest plan was conlcuded at the end of the 90s. Since 2007 new measures and laws have been introduced to open the door to other ways of supporting housing affordability and promoting social housing. Therefore, the Italian regulation now provides an integrated system based on a central,national real estate fund which co-finance the local funds known and that is known as SIF, a new tool for the implementation of affordable housing in the country. In addition, and since 2009 the Italian Deposits and Loans Fund (CDP), together with the Italian Banking Association (ABI) and the Association of Italian Banking Foundations and Saving Banks (ACRI), established an asset management company, "CDP Investimenti SGR SpA", whose mission is to target the "Fondo Investimenti per l'Arbitare" (FIA) or the national real estate fund for social housing targeted to qualified investors. This is the latest private initiative to provide affordable housing supported by private investment and without any public subsidies. The public sector also provides forms of social housing, this time funded by public resources, and aimed at increasing the number of affordable houses through the provision of moderate rental fees and sale at fixed prices for those who cannot access market housing solutions due to income constraints or other characteristics (students, young families, separated parents, retired people...). Therefore, Italy has both affordable and social housing promoted by public as well as by private entities with a wide range of participants from local councils to banking associations, housing providers, social enterprises, non-profit organisations or estate operators. Furthermore, programes have experienced a remarkable evolution over time, moving from a traditional and limited perspective to a broader one which gathers a larger number of different solutions.

In **Spain** affordable housing falls under urban development plans and, therefore, part of the stock of new dwellings built ncessarily falls under the remit of affordable housing programmes. The development and sale of new dwellings is managed through public or private initiatives under an established regime of maximum prices and in compliance with the requirements for buyers. This type of housing is usually protected for a maximum period of time, between 10 and 30 years, after which the property becomes an open-market property without any restrictions on use, price or potential buyers. Certain other restrictions apply to this type of housing. For example, there is a maximum size for the dwellings depending on the household characteristics. Likewise, there is a maximum limit on the price which takes into account the price of the module (price/useful m^2) multiplied by the surface and the coefficients assigned to the location. Buyers must also meet certain requirements regarding the purpose (main residence only), and may notown any other housing. At the moment there are no specific allowances for developers building affordable housing, but the price of the land is – or should be – significantly lower than the price for open-market housing. However, one of the main goals of affordable housing policies is the provision of affordable land in suitable locations, since this land cost is passed among others to the end buyer. Finally, advantageous borrowing conditions – regulated under an agreement between the Government and financial institutions – are still in force for buyers of homes under a regime of protection before 2013.

In the **Netherlands**, corporations are primarily responsible for the operation of social rental housing. Moreover, the national government is in charge of increasing the maximum rent limit applicable, in 2018 it was increased by 4 pps. and by 2.5 pps in 2019. However, in 2017 the increase of rent limits was dependent on the hosuhold income. With this measure, the government intended to tempt households with higher incomes to move, so that households with lower income get more access to the social housing stock.

Finally, in **Sweden** three different schemes are in place to boost house affordability. First of all, in the country all rental apartments are subject to rent control, a system that has been in place since the second world war. The system is known as "The Utility value system" (bruksvärdessystemet) and encompasses not only public owned apartments, but also those owned by commercial companies and private landlords. The idea behind the system is that the rent should be compared with other rental apartments with equivalent utility value and it can only differ slightly from of the rents for public-housing apartments. However, in areas with strong population and economic growth this system creates imbalances between demand and supply and as a consequence difficulties are faced to find a new build apartment (waiting list of 17 years in Stockholm and 5 years in the surroundings). On top of the rent control for those individuals who meet certain income related, age (younger than 29 years old) and family composition (with children) requirements, these individuals are eligible for housing allowances. At the other end of the spectrum, individuals who have reached 65 years and have a low income are also eligible for a housing supplement. Finally, individuals between these two ages who have difficulties in meeting rent payments are requried to apply for social contributions at municipal level. Furthermore, construction subsidies for rental and student apartments (small apartments with a floor area of less than $70m^2$) were introduced in 2015, although these were withdrawn at the end of 2018. The new government which took office at the beginning of 2019 has pledged to introduce new investment support in a different form. It is not clear what the focus of the new programme will be.

AFFORDABLE HOUSING IS A REALITY, BUT HOW BIG IS IT IN THE TOTAL MARKET?

It is clear from the analysis above that all countries have some kind of affordable and social housing, but measuring the size of the market is a more complex task. Figures in this area are not always accessible and, furthermore, the lack of a definition as described above complicates the task.

Our sample suggests that in the majority of the countries surveyed, the share of affordable housing compared to the total housing market is around 20%, with some exceptions where levels are considerably lower.

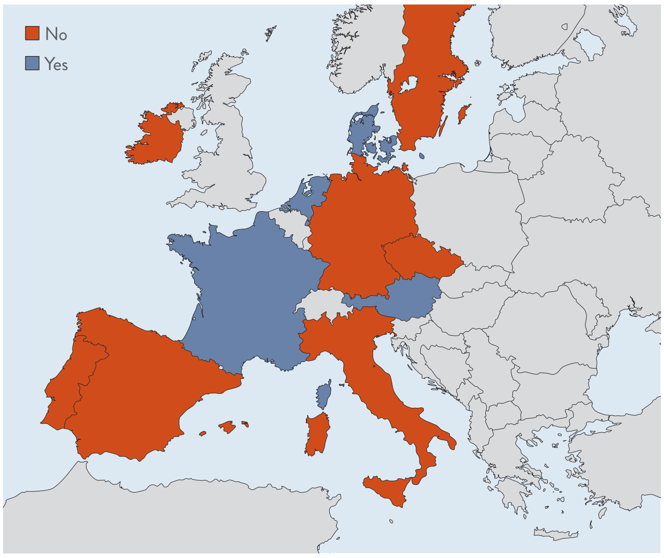
From our sample the country with the highest level of affordable housing is the **Netherlands** where the share reaches 33%. The second country of the sample with the highest level of affordable housing is **Denmark** where 21% of total stock of dwellings is consider either public or social housing, and affordable. **France** follows closely with 18% of households renting from an HLM (around 10 mn people). In **Austria** 17% of the total stock comes under the LPHA rental programme and therefore is considered affordable housing. In **Sweden**, considering only the public utility-housing, the share of affordable housing against the total of dwellings is 14%, however, if we consider only apartments in multi-family homes, 28% of apartments fall under an affordable housing scheme. It is important to note that all rental apartments are subject to the rent limits presented in the previous section. **Ireland** follows with 9.4% of housholds in permanent housing units rented from local authorities or voluntary bodies. In **Germany** around 3% of the total housing stock is considered social, a figure that reaches 6% if we look only at the rental market. On top of that, between 500,000 and 1 mn low-income households receive some type of housing allowances to help them manage costs. For the recipients, the proportion of accommodation costs to income has been reduced by 10%. For another 4 mn households the state covers the costs for accommodation and heating as part of unemployment benefit and social welfare. In addition, there are various programs to make home ownership affordable. For example, it is expected that in the coming years some 200,000 households per year will be able to benefit from the newly created construction child benefit which a measure to promote affordable housing. In Spain the affordable housing stock accounts for 2.0-2.5% of the total. From January to September 2018 the number of completed affordable dwellings accounted for 2,504 dwellings, representing less than 5% of total new projects.

RATIONALE FOR INVESTING IN AFFORDABLE HOUSING

The reasons why governments take initiatives and implement policies in this field are varied, but all start from the view that housing is fundamental for the development of society, from a social and economic perspective. But, when it comes to private funding and the rationale to invest in affordable housing other reasons play their role too. As we have seen most the countries provide public funded affordable housing, however, on the private supply side the picture depicted is slightly different and loans for affordable housing are less widespread spread among jurisdictions.

From our sample, the countries in which banks provide funding to support the access to housing are four, as can be seen in map 2, namely, **Austria, Denmark, France** and the **Netherlands**.

MAP 2 | LOANS GRANTED FOR AFFORDABLE HOUSING PROJECTS



In the **Netherlands** it is recognised that there are not only social benefits to the promotion of affordable housing but economic benefits for banks given the good returns of the buy-to-let sector. In the **Czech Republic** banks also see benefits and interest in providing loans for the construction of affordable housing, however, the financing is not done directly but through municipalities. Banks provide loans to municipalities which are responsible for the financing of affordable housing projects. In **France**, banks have also taken the initiative to distribute house loans based on a public scheme in order to satisfy their customers needs and finance them in the best conditions possible. Furthermore, the Caisse de Depots also provide loans to HLM. A small proportion of fudning is provided by public (La Banque Postale) and mutual banks. In **Austria** special bank loans are also provided for the funding of affordable housing, and the restriction of these programmes to low-income households benefits the Austrian social housing sector since it makes the investment in these projects more attractive for the private market. Furthermore, it reinforces competition between the social housing sector and the private segment, influencing the general level of prices and boosting efficiency.

In **Spain** the situation is slightly different. From a banking perspective, the fact that there is still some risk aversion given the economic difficulties experienced in previous years has resulted in a slow down in the number of new constructions and reduced the willigness to invest in real estate projects. However, considering the steady recovery of the industry and the recovery of prices that will follow, social and affordable housing is expected to become increasingly attractive. Having said this, it is worth mentioning that protected housing policies in recent years have especially been rental-oriented policies. Apart from that, advantageous conditions related to public housing funding in previous years no longer have a positive impact on the available income of affordable housing owners anymore, given the current accommodative stance of the ECB's monetary policy with interest rates at historic lows. It is furthermore worth highlighting that despite the fact that loans granted for affordable housing have a lower rate of default, banks still prefer to invest in "normal" housing for the reasons mentioned above such as the economic difficulties or the low returns. All of these factors taken together mean that there has been a reduction in investment in affordable housing. Finally, in **Portugal** there are no special incentives to invest or provide finance for affordable housing projects since there are no particular risks or returns. Therefore, banks provide loans based on the customer's credit score and the value of the collateral without taking into account the purpose of the loan.

As shown in this section in most countries, banks participate in the provision of loans for affordable and housing markets, however, the share and relevance of these loans varies among them. In **Denmark** the amount of mortgage lending for subsidised housing represents close to 7% of the total market, amounting for over DKK 180 bn (aggregate numbers for all Danish mortgage banks). This type of lending has been increasing since the end of 2012. In **Spain**, in March 2017 the outstanding amount of loans for affordable housing amounted to EUR 20.59 bn, thus representing 4.1% of the total market. Finally, in France it is difficult to provide a representative aggregate figure since the situation among banks is disparate. For example, loans guaranteed by FGAS represent around 50% of its outstanding portfolio of mortgages and around 30% of the outstanding of all the loans guaranteed by FGAS at a national level. The past tendency in **France** shows a reduction in public schemes for home ownership due to cuts in the budget since 2018. Prior to this, there were two periods during which financing was relaunched, the first one between 2008 and 2011, and the seconde between 2014 and 2017. This change in the context influences the level of production of mortgage loans aimed at financing affordable housing. Despite these fluctuations, during the five last years there has been a stabilisation.

MAIN SOURCES OF FUNDING OF AFFORDABLE HOUSING

With regard to the main funding instruments of the loans that are issued to finance affordable housing programmes, in **Denmark**, following the structure of the general market, loans for affordable housing are mainly funded by covered bonds which are issued by Danish mortgage banks. Similarly in **Spain**, affordable housing loans are funded by the same means as for any other type of mortgage loan. Therefore, the most common source of funding for affordable house loans in Spain are bank deposits and covered bonds (cédulas hipotecarias). In **France**, loans are also financed in the same way as conventional mortgages, i.e. through deposits, covered bonds and securitisation. However, the exception are HLM which are financed through the Fonds d'Epargne based on the centralisation of Livret, which is a savings account at the Caisse des Depots. For these deposits the interest is free of tax and any other contributions, and the interest rate is determined by the State. 66% of funds are centralised at the Caisse des Depots with a small commission received by banks.

Another important aspect directly related to funding is the LTV. Regarding the LTV differences between affordable and open-market housing are more important than between the sources of finance. In general, loans for affordable housing require a higher LTV since the beneficiaries usually have a lower income and therefore need to cover a higher amount of the cost of the property. For example, in **Denmark** this is clear since the LTV for mortgage loans for social/public housing is defined by law at 80%, although in some cases it is possible to have an LTV up to 86-90% subject to the presence of a municipal guarantee covering part of these costs as previously described. This is the case also in Spain where there is a maximum LTV ratio of 80% for those benefiting from a protected regime dwelling with the majority of the loans being taken by first time buyers who consequently make use of this maximum LTV. On the open-market in **Spain** mortgages are not restricted by a maximum LTV. It is remarkable in Spain that the dispersion on LTV ratios in the open-market is higher than that in the market of affordable housing. On the other hand in **France**, there are no restrictions on the maximum LTV, however, for the HLM programmes the norm is to have an LTV around 70 or 80% while for loans under home ownership programmes the most common ratio is 100% as the majority of the beneficiaries are first time buyers. Likewise in the **Netherlands**, the most common LTV ratio is that of 70% but no restrictions apply.

RISK ASSESSMENT OF AFFORDABLE HOUSING

Finally, we address one of the most important aspects that is considered at the time of granting or rejecting a mortgage application, this is the risk assessment. In this sense, banks offering loans for affordable housing projects do not distinguish at the time of carrying the risk assessment between those for affordable housing and the ones for "normal" housing. For the acquisition of affordable or open-market housing, loans are granted based on the same scoring process and same lending policy, combining several criteria such as the ability of the future borrower to repay the loan, LTI, LTV, structure of the familiy, employment situation, additional guarantees available, customer-bank relationship, default track records, etc. The enforceability and quality of the mortgage collateral is also essential when assessing the risk in any type of mortgage loan.

CONCLUSIONS

Governments and private entities across the EU have developed very different schemes in order to make housing more affordable in light of the significance of housing for social cohesion and economic development. The variety of affordable housing programmes reflects the fact that affordable housing is a broader and wider concept than social housing.

In such a diverse market we can identify a variety of different beneficiaries with different needs, therefore requiring the involvement of different providers. Currently the public sector still plays an important role in the development of affordable housing, but private initiatives are present in several countries, reflecting the increasing role of private financing in affordable housing. The potential for the private sector to play an increasingly important role in this area is significant against a backdrop of decreasing spending capacity of public authorities and a growing share of the population in need of affordable housing.

A comparative study on the Dutch and English buy-to-let market

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The authors like to thank Marja Elsinga, Harry Boumeester, Scott Cunningham (all Delft University of Technology) and Frank van der Harst (Dutch Land Registry) for their valuable contributions to earlier versions of this paper.

ABSTRACT

In both the Netherlands and England, the share of private rental dwellings has increased in the past years. This growth can be mainly attributed to an increase in the number of relatively small private landlords, the buy-to-let landlords. Although the number of private rental dwellings is increasing in both countries, the characteristics of both market are not necessarily the same. This is because of the different housing market context. It is therefore interesting to study the portfolios of these buy-to-let landlords and to investigate whether these are related to certain contextual factors. To gain insight into these portfolios, data of the Dutch Land Registry and English surveys have been used. The characteristics of these portfolios have been related to the historical development of the private rental sector in both countries and the use of investment mortgages. It has been found that the average portfolio size of English buy-to-let landlords is smaller. It also seems as the Dutch buy-to-let market is slightly more professional. This is interesting because the English buy-to-let market started to grow earlier. Furthermore, the use of investment mortgages is more common in England, but these mortgages are particularly used by the larger landlords. It is not expected that the Dutch buy-to-let market will converge towards the English buy-to-let market in the near future. More in-depth research is needed on both buy-to-let markets to better understand the differences and the potential reasons for these differences.

Key words: housing market, buy-to-let, private rental sector, housing policy, investment mortgage, the Netherlands, England.

1. INTRODUCTION

The majority of Dutch dwellings belongs to the owner-occupied segment. The remaining dwellings are mostly owned by housing associations and only a relatively small share is owned by private investors. Whilst the share of private rental dwellings was only 7% in 2007, this share is slowly increasing and currently amounts to roughly 10% of all Dutch dwellings (Capital Value, 2018). Private investors with a relatively small portfolio, instead of institutional investors, are predominantly responsible for this increase in private rental dwellings (Aalbers, Bosma, Fernandez, & Hochstenbach, 2018). The share of private rental dwellings is not only increasing in the Netherlands, but also in other countries such as Australia, Spain, the United States and England (Martin, Hulse, & Pawson, 2018). In England, this share has for instance increased from 8% in 1990 to 20% in 2014 (Van der Heijden, 2013; Whitehead, et al., 2016). Like the Netherlands, this growth can be mainly attributed to the smaller non-institutional landlords (Kemp, 2015).

These private landlords comprise a part of the private rental sector which is often called the buy-to-let segment in the Netherlands. This is partly because these landlords particularly buy owner-occupied dwellings to rent them out instead of building new rental dwellings (Aalbers, Bosma, Fernandez, & Hochstenbach, 2018). In England, however, the notion buy-to-let is only used when these dwellings are purchased using mortgages (Leyshon & French, 2009). In this paper, the term buy-to-let landlords is used to refer to small non-institutional landlords who have purchased their property with or without a mortgage.

Despite the buy-to-let market is growing in the Netherlands and England, the characteristics of both buy-to-let markets are not necessarily the same. The regulatory framework and the way of financing the investments are for example different in both countries (Whitehead, et al., 2016). In England, the introduction of the buy-to-let mortgages was an important driver for the growth of this sector (Kemp, 2015). Furthermore, the growth of the private rental sector started earlier in England and the share of private rental dwellings is higher. It would be interesting to study whether these differences are reflected in the characteristics of the two buy-to-let markets. Moreover, these insights could be used to evaluate new policy measures on their possible consequences. In this paper, the focus will specifically be on the historical development of the private rental sector in relation to the institutional changes and the different ways of financing the residential property investments. These contextual factors could be reflected in the characteristics of the two buy-to-let markets. Therefore, the following research question has been formulated: "What are the main differences between the portfolios of Dutch and English buy-to-let landlords and can these differences be related to the housing market context of both countries?" If these differences can be related to contextual factors, it will be possible to provide expectations for the future development of both buy-to-let markets.

This paper is organized as follows: in the next section the development of the private rental sector in both countries and the ways of financing residential property investments will be discussed in more detail. Section 3 describes the research approach used for this paper. In section 4, the two buy-to-let markets will be discussed and compared with each other. The article ends with the conclusions in section 5.

2. THEORETICAL FRAMEWORK

In this section the housing market context of both countries will be described. First, the historical development of the Dutch and English private rental sector will be discussed. Next, insight is provided into the general ways of financing residential property and the use of mortgages in both countries.

THE HISTORIC DEVELOPMENT OF THE DUTCH AND ENGLISH PRIVATE RENTAL SECTOR

In both the Netherlands and England, the private rental sector was once the largest segment. In 1947, 60% of the Dutch dwellings belonged to the private rental segment, while 53% of the English dwellings belonged to this segment in 1950 (Van der Heijden, 2013). Since then, however, both shares have decreased significantly. These declines are primarily caused by government policy in the years after World War II. In both countries, the social rental sector was stimulated in the form of for instance cheap loans and subsidies in order to decrease the housing shortage. In addition, home-ownership was promoted by tax reliefs (Jonker-Verkaart & Wassenberg, 2015; Rouwendal, 2007; Van der Heijden, 2013; Whitehead, et al., 2016).

In the 1980s, when the share of English private rental dwellings was at its lowest point, the British government decided that investments in the private rental sector should be stimulated again. They still considered private rental dwellings as an important alternative to owner-occupied dwellings. Hence, they implemented new policy measures to deregulate this segment and to encourage investments (Van der Heijden, 2013). Moreover, a new type of investment mortgages, the buy-to-let mortgages, were introduced in 1996. These mortgages made it cheaper and easier for private landlords to borrow money (Kemp, 2015). In the Netherlands, the private rental sector became merely more popular, because the regulations regarding the allocation of social rental dwellings and mortgages had become stricter in the 21st century (Elsinga & Lind, 2013; Hekwolter of Hekhuis, Nijskens, & Heeringa, 2017; Hoekstra, 2017; Van Middelkoop & Schilder, 2017). This increased the demand for private rental dwellings and thereby also the supply. Furthermore, the economic crisis stimulated the demand and supply of rental dwellings in both countries. The relative attractiveness of the residential property market increased due to the low returns on the stock market, bank deposits and pension savings (Kemp, 2015). The low interest rate made it more profitable for private investors to borrow money and to invest this money in private rental dwellings (Martin, Hulse, & Pawson, 2018). At the same time, it became more difficult for first-time buyers to buy a dwelling, because of stricter lending criteria (Whitehead, et al., 2016).

All these developments contributed to the growth of the Dutch and English private rental sector. This started earlier in England, because the conditions for investing in this sector became attractive earlier. Although most of these conditions are still there, it seems that the times are changing for English private landlords. The British government is keen that expansion of the private rental sector does not present undue obstacles to achieving home ownership, whether through reduction of the number of dwellings available for purchase (buy-to-let is typically a buy-and-hold investment), or because competition from buy-to-let purchasers may push up prices.

To address these concerns, the British government has introduced a number of measures in 2016 and 2017 which have incrementally reduced the incentives for people to become or to remain a private landlord. These measures include a tightening of mortgage interest tax relief for buy-to-let mortgages and an increase in stamp duty tax on purchases of rental properties (Scanlon & Whitehead, 2016). Moreover, the Bank of England introduced tougher regulations for investment mortgages in 2017. These new regulations entail that the viability of the entire portfolio needs to be assessed instead of only the property for which a mortgage is applied for. These rules are only applicable to individual landlords and not to limited companies. (Meadows, 2017).

The Dutch government also carefully monitors the growing private rental sector and is particularly concerned about the competition between buy-to-let landlords and first-time buyers. A second concern is a possible inflationary effect because the growth of the sector also increases the demand for housing while the supply is shrinking. The national government has not taken national measures to help first-time buyers, but advices municipalities to take local measures when necessary (Ollongren, 2018). A national measure that affects several private landlords is the "Landlord Levy". This measure was introduced in 2013. Originally, this levy needed to be paid by landlords who own more than 10 regulated rental dwellings. This exemption has been expanded in 2018 to 50 regulated rental dwellings (Rijksoverheid, n.d.). This levy therefore especially affects larger landlords.

THE MORTGAGE MARKET STRUCTURE FOR PRIVATE LANDLORDS

In the previous paragraph, British buy-to-let mortgages were already briefly mentioned. These mortgages were not introduced by the government, but by the banks and letting agents themselves in 1996 (Martin, Hulse, & Pawson, 2018). Before 1996, British landlords could also get a loan to finance their investment, but a risk premium of approximately two per cent was added to the normal interest rate (Leyshon & French, 2009). This risk premium was reduced in the new scheme. This made it more attractive for people to invest in residential property and over time more firms started to offer these mortgages. This led to a massive increase in the number and value of buy-to-let loans. The number of outstanding buy-to-let loans increased from 28,700 in 1998, to 1,2 million in 2008 and 1,8 million in 2015 (Council of Mortgage Lenders, 2017; Leyshon & French, 2009). These 1,8 million outstanding loans had a value of roughly £214 billion (Council of Mortgage Lenders, 2017). A recent survey shows that nearly 50% of the properties acquired by the questioned landlords were bought using a buy-to-let mortgage. This survey furthermore showed that landlords with multiple dwellings in their possession are more likely to have used a buy-to-let mortgage (Scanlon & Whitehead, 2016). It is still uncertain how the buy-to-let market will react to new regulations of the Bank Of England, but it is expected that these will make it more difficult for landlords with several rental dwellings in their possession to get a buy-to-let mortgage (Meadows, 2017). Regarding the general characteristics of the buy-to-let loans, the maximum loan-to-value ratio for these loans is around 80% and the rents should generally cover 130% of the loan repayments. Furthermore, investors can choose between an interest only and a repayment mortgage (Gibb & Nygaard, 2005; Mortgages for Business, n.d.).

No research has been done on the size of the Dutch buy-to-let mortgage market. As a result, little is known on the size and characteristics of this mortgage market. This is probably related to the fact that there is no similar party as the British Council of Mortgage Lenders in the Netherlands. This organisation provides most of the above mentioned information on the British buy-to-let mortgage market. It is expected that the Dutch buy-to-let mortgage market is smaller than the English because the Dutch private rental sector is smaller in both absolute and relative terms. The Dutch buy-to-let mortgage market does, however, exist. Several parties currently offer loans to finance this type of investments and each party has their own conditions. Two parties who specifically focus on these type of loans are NIBC and RNHB (Kop-Munt, 2017). They both offer interest only and repayment mortgages. The maximum loan-to-value ratio for repayment mortgages is similar to the British ratio. This ratio is lower for an interest only mortgage and often only 50% (NIBC Direct, n.d.; RNHB, n.d.).

Although the size of the Dutch buy-to-let mortgage market is unknown, the use of mortgages by private landlords has been studied by the Kadaster, the Dutch Land Registry. Based on their data, it can be seen that most purchases in 2016 of private persons with multiple dwellings in their possession were done without a mortgage (Van der Harst & De Vries, 2017). Other data of the Kadaster (2017) shows that, just like in England, larger landlords are more likely to use an investment mortgage. Between June 2016 and October 2017, on average 40% of the purchases by private landlords involved a mortgage. This share was lower for private landlords with a portfolio of maximum nine dwellings and higher for the landlords with a larger portfolio. Furthermore, the share increases as the portfolio size increases (Kadaster, 2017).

3. METHODOLOGY

In order to compare the Dutch and English buy-to-let market, information on both markets is needed. Ideally the same type of information on both markets is used as this ensures a fair comparison. Nevertheless, information on the English buy-to-let market can only be obtained by surveys, while micro data of the Kadaster, the Dutch Land Registry, can best be used to gain insight in the Dutch buy-to-let market. The Kadaster has the most actual information on the Dutch housing stock and tenure. Each source has its advantages and disadvantages. The main disadvantage of a survey is that the results cannot necessarily be generalized. The major drawback of the micro data of the Kadaster is that less background information on the landlords and dwellings is available. Both information sources will be discussed in more detail below.

The data of the Kadaster is predominantly used to get an overview of the Dutch buy-to-let market. By linking the property register with the civil register, information can be obtained on the dwellings and owners. For this study, only information on relatively small non-institutional landlords is needed. Consequently, only private landlords with a portfolio of maximum 50 rental dwellings have been selected. The maximum portfolio size of 50 is also used by other Dutch parties such as the Dutch Central Bank (DNB) and Kadaster when they discuss the buy-to-let market (Aalbers, Bosma, Fernandez, & Hochstenbach, 2018). These landlords mostly buy owner-occupied dwellings instead of building new rental dwellings. To determine whether someone is a buy-to-let landlord, different criteria are used. These criteria are different for private persons and companies. For private persons, it is first determined how many dwellings each person owns. When a private person owns two or more dwellings, it is checked whether he or she is registered at these dwellings. The dwellings at which the private person is not registered, are assumed to be private rental dwellings. Technically it is possible that some of these dwellings are not rental dwellings, but for instance second homes. This should be kept in mind when discussing the results. Since households sometimes temporarily own two dwellings when they are moving houses, it is examined whether these households also owned these two dwellings six months ago. If this is the case, it is assumed that one of these dwellings is a rental dwelling. Different criteria are used for the private companies. For these landlords, it is not checked whether they are also registered at these dwellings, because they are not private persons. The portfolio sizes of these private companies are calculated. The companies who do not own more than 50 rental dwellings are selected. It is checked whether the company is not a government institution, ecclesiastical party or other association. This is to ensure that they are actually private landlords. The use of these criteria resulted in a dataset of 118.000 buy-to-let landlords and 370.000 buy-to-let dwellings. This entails that 57% of the Dutch private rental stock has been selected.

This type of micro data is not available for the English buy-to-let market and therefore surveys are used. For this research, two surveys are used to compare the Dutch buy-to-let market to the English buy-to-let market. One of these surveys is the English Housing Survey. This survey collects information on the households and the housing stock. For the most recent survey, the survey 2016-2017, 12.970 households were interviewed and 12.292 dwellings were inspected (MHCLG, 2018a). The second survey is the Council of Mortgage Lenders Landlord Survey 2016. The report of Scanlon & Whitehead (2016), which is based on this survey, is used because the data is not publicly available. This is the most recent and biggest survey up to now on the British private rental sector. It has a sample size of 2.517 landlords. Both landlords with and without a buy-to-let mortgage could participate. Attention was paid to the regional distribution of the respondents to make sure that the number of results is in line with the housing stock of that region (Scanlon & Whitehead, 2016). A disadvantage of this survey is that it provides information on the British private rental sector in general instead of the English private rental sector. However, since most British dwellings are located in England, it is expected that the characteristics of the British buy-to-let market and their landlords are representative for the English. A disadvantage of both surveys is that they do not make a breakdown based on the portfolio sizes of the landlords. Hence it is not possible to only select the private landlords with a portfolio of maximum 50 dwellings. Based on these surveys, it can however be concluded that most British private landlords belong to this segment. For example, 98% of the respondents of the CML survey do not own more than 9 dwellings (Sateriale, 2016). Other data also shows that the clear majority of the English private rental dwellings belongs to this segment. Unlike other countries, such as the Netherlands, institutional landlords are only a small player in England (Countrywide, 2014). It is therefore expected that the surveys provide a good image of the average English buy-to-let dwelling.

4. CHARACTERISTICS OF THE DUTCH AND ENGLISH BUY-TO-LET MARKET

In this section, the Dutch buy-to-let market will be compared with the English buy-to-let market. First, the buy-to-let landlords and their portfolio sizes will be studied. Next, the buy-to-let dwellings will be studied in more detail. It will be shown what type of dwellings in general belong to this segment and where these dwellings are mostly located. Last, an overview will be given of the main differences.

THE PORTFOLIO SIZE OF BUY-TO-LET LANDLORDS

In figures 1 and 2, the distribution of the portfolio size for the Dutch and English buy-to-let landlords is shown. By comparing these two figures, interesting insights can be gained. Most English landlords own for instance only one rental dwelling, while this share is less than 40% for the Netherlands. Nevertheless, the majority of Dutch by-to-let landlords own only one or two dwellings. In addition, the portfolio size of English buy-to-let landlords is in general slightly smaller. This is also reflected in the distribution of the buy-to-let dwellings. Most English buy-to-let dwellings, 60%, are in the possession of the landlords with a portfolio size of maximum four dwellings. This is not the case for the Netherlands. Here 50% of the buy-to-let dwellings belong to these landlords and the other 50% to the landlords with a portfolio of five or more dwellings.

Buy-to-let landlords can either be private persons or private companies. Most Dutch and English private landlords are private persons. Only 12% of the Dutch buy-to-let landlords have a private company as ownership structure. This share is only 3% for England (Scanlon & Whitehead, 2016). That most buy-to-let dwellings are owned by private persons instead of private companies is probably related to the fact that most Dutch and English buy-to-let dwellings are owned by buy-to-let landlords with only a few dwellings in their portfolio. This thought is confirmed by the data and surveys. The majority of Dutch private persons possesses only one or two buy-to-let dwellings, whilst the majority of Dutch private companies owns three or more buy-to-let dwellings (Kadaster, 2018). The CML survey shows that English buy-to-let landlords are more likely to move to a limited company structure when they have four or more rental dwellings in their possession (Scanlon & Whitehead, 2016).

THE PREFERENCES OF BUY-TO-LET LANDLORDS

Besides studying the characteristics of the buy-to-let landlords, it is interesting to study the characteristics of the dwellings they own. The following four dwelling characteristics have been studied; dwelling type, floor area, value of the dwelling and location.

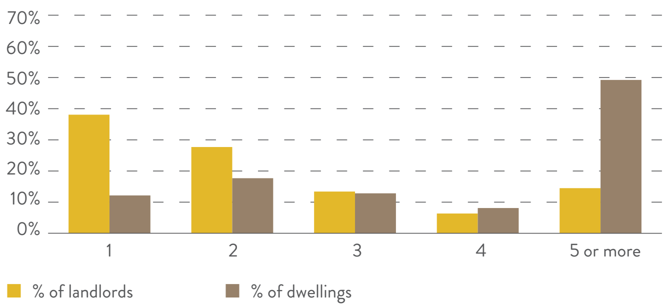
Figures 3 and 4 show the division of dwelling types for buy-to-let dwellings and other types of dwellings for both the Netherlands and England. In general, it can be seen that most Dutch dwellings are apartments or terraced houses, whilst the division between the four dwelling types is more equal for England. Regarding the Dutch buy-to-let segment, it is shown that most buy-to-let dwellings are apartments. This is the case for rental dwellings in general. However, when compared to all rental dwellings, the share of terraced dwellings is smaller and the share of detached dwellings is higher. An English buy-to-let dwelling is mostly an apartment or a terraced house. Furthermore, the distribution of the dwelling types for buy-to-let dwellings is very similar to the distribution for all rental dwellings.

Next, the floor area of Dutch buy-to-let dwellings has been studied and compared to the floor area of English private rental dwellings. These results are shown in figures 5 and 6. These figures show that Dutch dwellings are on average larger than English dwellings. This is quite surprising as most Dutch dwellings are an apartment or terraced house. Regarding the buy-to-let dwellings, it can be seen that the share of small dwellings, a floor surface of less than 50 square metres, is the same for the Netherlands and England. Although this share is the same, English buy-to-let dwellings are overall smaller than Dutch buy-to-let dwellings. Last, it is interesting that a relatively large share of the Dutch buy-to-let dwellings has a floor surface of more than 125 square metres. This share is twice as high as the share for all rental dwellings.

The value of buy-to-let dwellings is another interesting characteristic. The distribution of these values for the Dutch dwellings is shown in figure 7. These values are calculated by using another dataset of the Kadaster. This dataset contains all Dutch private housing transactions. Based on these transactions, the average square meter price for different groups of dwellings has been determined. These averages are connected to the dataset with the Dutch housing stock. By multiplying these prices with the floor surface of each dwelling, the value of the dwelling could be estimated. Although the separate values will not be completely accurate, the total value gives a good representation of the value of buy-to-let dwellings in general compared to other dwellings.

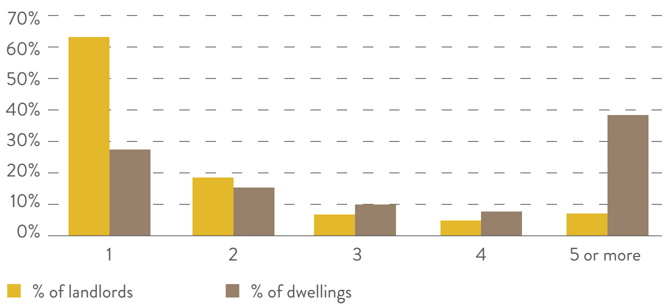
Figure 7 shows that buy-to-let dwellings and rental dwellings in general are relatively cheap when compared to all Dutch dwellings and especially the owner-occupied dwellings. However, the share of expensive dwellings is quite high when compared to the rental dwellings and is almost equal to the Dutch share. This is not completely surprising as these prices probably belong to the relatively large buy-to-let dwellings. Some of these dwellings could be for instance second homes instead of private rental dwellings. The value of English buy-to-let dwellings is

FIGURE 1 | DISTRIBUTION OF PORTFOLIO SIZE FOR THE DUTCH BUY-TO-LET SECTOR



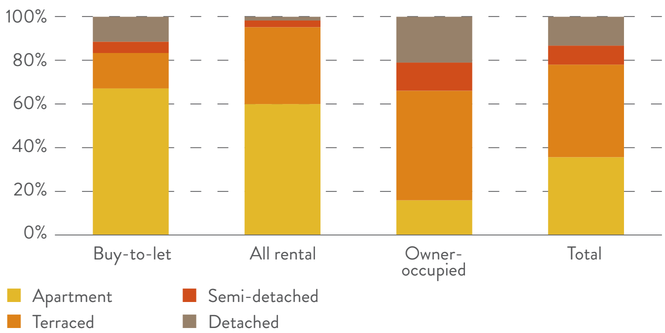
Source: own elaboration with data from Kadaster

FIGURE 2 | DISTRIBUTION OF PORTFOLIO SIZE FOR THE BRITISH BUY-TO-LET SECTOR



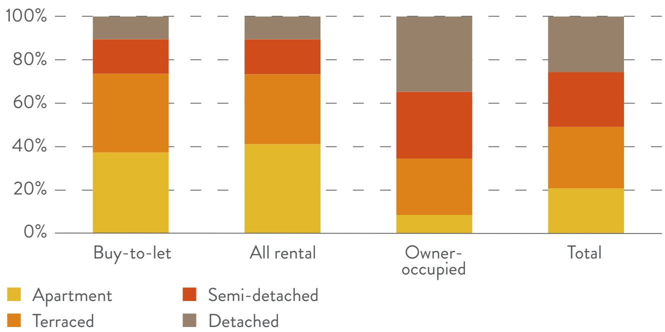
Source: Scanlon & Whitehead

FIGURE 3 | DISTRIBUTION OF DWELLING TYPES FOR THE NETHERLANDS



Source: own elaboration with data from the Kadaster (2018)

FIGURE 4 | DISTRIBUTION OF DWELLING TYPES FOR ENGLAND



Source: own elaboration with data from MHCLG (2018b) not available, but the study of Scanlon & Whitehead (2016) provides information on the portfolio values of British private landlords. The median portfolio value of the questioned private landlords is £350,000. The Kadaster data shows that the median portfolio value of Dutch buy-to-let landlords is €450.000, approximately £400.000. It is not surprising that the Dutch value is higher since the average portfolio size of Dutch buy-to-let landlords is also higher. Scanlon & Whitehead (2016) also provide information on the portfolio value of private landlords who only own one dwelling. In that case, the portfolio value is equal to the dwelling value. Most of these landlords, 61%, have a dwelling with an expected value of £199,000 or less. These figures are comparable to the Dutch figures, especially if one considers the higher value of the British pound compared to the Euro.

The last dwelling characteristic that has been studied is the location of the Dutch and English buy-to-let dwellings. First, the environment of these dwellings has been investigated. The results are shown in figures 8 and 9. Attention needs to be paid to the different classification. Figure 8 shows that most Dutch buy-to-let dwellings are located in areas with a (very) high dwelling density or urban areas. This is the same for the English buy-to-let dwellings as the share of these dwellings in the city or urban centres is relatively high. Since most English dwellings are located in the suburban areas, a large share of English buy-to-let dwellings is located in these areas.

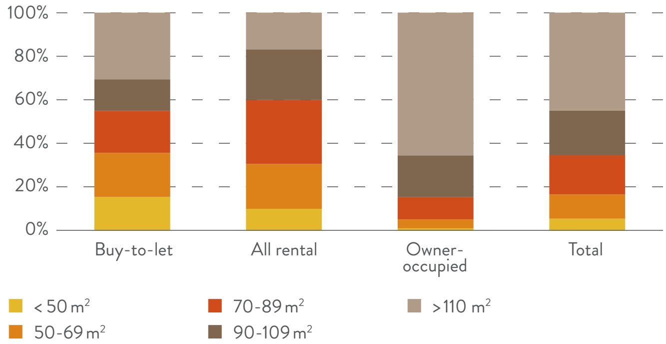
To see in which specific areas the Dutch buy-to-let segment is relatively big, the buy-to-let market at the municipal level has been studied. In figure 10, the share of buy-to-let dwellings for all municipalities is shown. It can be seen that the share of buy-to-let dwelling is in general higher in coastal and border regions and the relatively small municipalities. These high shares are possibly caused by the presence of second homes in the dataset. The share of buy-to-let is, however, also relatively high for the four biggest cities; Amsterdam, Rotterdam, The Hague and Utrecht. The Kadaster data furthermore shows that the share of buy-to-let dwellings is generally higher in the larger municipalities.

This detailed information on the location of private rental dwellings in not available for England specifically. Nevertheless, information on the regional level is available. This information, for example, shows that the share of private rental dwellings is the highest in the London region (MHCLG, 2018c). This share is 30% whilst the national average is 20,5%. Without this region, the national average is 18,6%. The region with the second highest share, 21,1%, is Yorkshire and the Humber. The region with the lowest share is North East with a share of 16,2%. This shows that, when not considering London, the share of private rental dwellings is relatively the same for the eight regions. This does not mean that the differences within the regions can be large as most private rental dwellings are located in the (sub)urban areas. A last interesting aspect regarding the location of English buy-to-let dwellings is the relation between the region where the landlords lives and the regions in which their property is located. Scanlon & Whitehead (2016) show that most of the private rental dwellings are located in the region where the landlord lives. This is the case for the nine English regions. This indicates that most buy-to-let dwellings in London are owned by landlords who live in the same region, which is interesting as the London region is, in terms of area, relatively small. Moreover, when the dwellings of the English private landlords are not located in their own region, they tend to be located in a neighbouring region.

THE MAIN DIFFERENCES BETWEEN THE DUTCH AND ENGLISH BUY-TO-LET MARKET

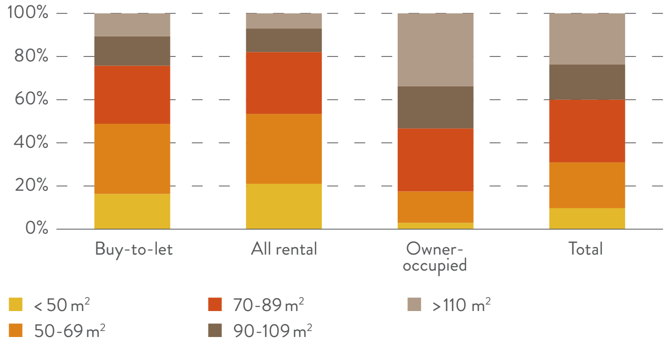
By comparing the two buy-to-let markets, several conclusions can be drawn. First, it can be seen that most English landlords own only one dwelling, whilst

FIGURE 5 | DISTRIBUTION OF DWELLING SIZE FOR THE NETHERLANDS



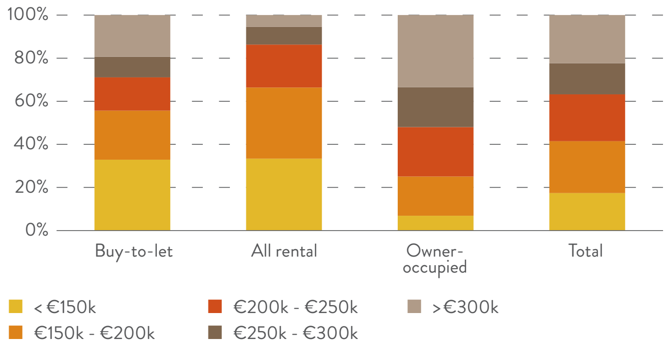
Source: own elaboration with data from the Kadaster (2018)

FIGURE 6 | DISTRIBUTION OF DWELLING SIZE FOR ENGLAND



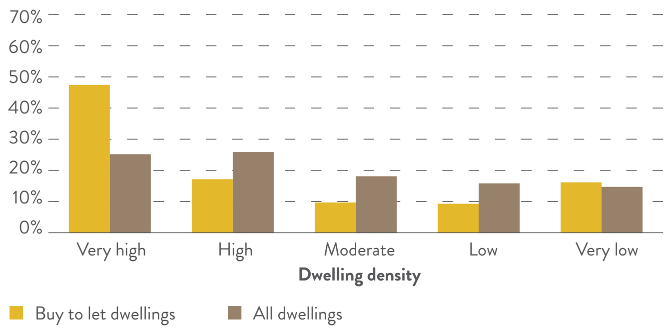
Source: own elaboration with data from MHCLG (2018b)

FIGURE 7 | DISTRIBUTION OF THE VALUE OF DUTCH BUY-TO-LET DWELLINGS



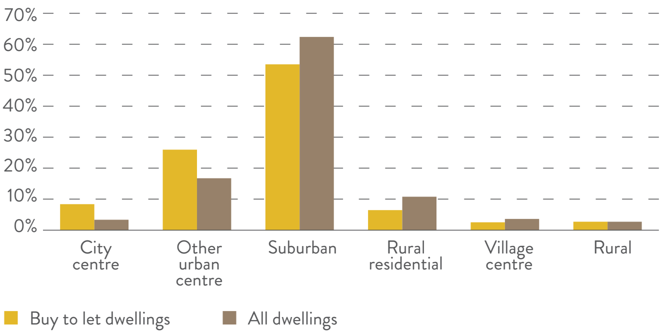
Source: own elaboration with data from the Kadaster (2018b)

FIGURE 8 | THE SPATIAL DISTRIBUTION FOR THE NETHERLANDS



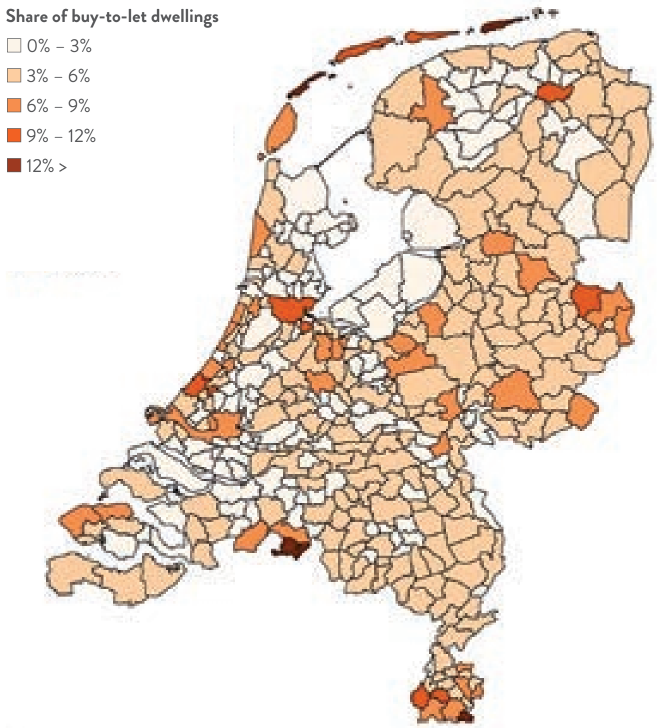
Source: own elaboration with data from CBS (2018) and Kadaster (2018)

FIGURE 9 | THE SPATIAL DISTRIBUTION FOR ENGLAND



Source: own elaboration with data from the MHCLG (2018b)

FIGURE 10 | THE PERCENTAGE OF BUY-TO-LET DWELLINGS BY MUNICIPALITY



Source: own elaboration with data from the Kadaster (2018)

this share is smaller for the Netherlands. In the Netherlands, a larger share of the buy-to-let landlords has multiple dwellings in their portfolio. This is interesting as the English buy-to-let market began to grow earlier. It could have been the case that these landlords expanded their portfolio over time. Still, most Dutch and English buy-to-let landlords have only one or two dwellings in their portfolio. Consequently, most Dutch and English buy-to-let landlords are private persons. The share of buy-to-let landlords with a private company as ownership structure is also slightly higher for the Netherlands.

Besides studying the buy-to-let landlords, their dwellings have been studied. Most Dutch buy-to-let dwellings are apartments, whilst the most prevalent types of English buy-to-let dwellings are apartments and terraced houses. Although a large share of the English buy-to-let dwellings are single-family dwellings, their floor surface is generally lower than the Dutch. However, it should be mentioned that the average English dwelling is smaller than the average Dutch dwelling. Furthermore, as might be expected, most buy-to-let dwellings are located in (sub)urban areas. In addition, most English buy-to-let dwellings are located in or around London, whilst not necessarily the highest share of Dutch buy-to-let dwellings can be found in or around Amsterdam. The share of buy-to-let dwellings is for instance higher in other Dutch cities such as Groningen and Maastricht. Last, most English landlords tend to live in close proximity of their properties. This relation is not studied for the Netherlands.

5. CONCLUSIONS

Over the last years, after a long period of declines, the share of Dutch private rental dwellings is increasing again. A similar trend can be observed for the English private rental sector. In both countries, the growth of this sector can be primarily attributed to an increase in the number of relatively small private landlords. Although the number of private rental dwellings is increasing in these countries, the characteristics of both markets are not necessarily the same. The regulatory framework and other contextual factors are different for these countries. The English buy-to-let mortgage market is for instance larger than the Dutch. Hence, in this paper, the characteristics of both buy-to-let markets have been studied and the housing market context of both countries has been described. By using descriptive statistics, it has become possible to answer the research question: "What are the main differences between the portfolios of Dutch and English buy-to-let landlords and can these differences be related to the housing market context of both countries?"

The most interesting differences between the two buy-to-let markets are related to the portfolio size of buy-to-let landlords and their ownership structure. The characteristics of the buy-to-let dwellings are relatively the same and as expected. By comparing the portfolio sizes of Dutch and English buy-to-let landlords, it became clear that the average portfolio size of English buy-to-let landlords is smaller. The majority of English buy-to-let landlords own only one dwelling. Nevertheless, the average portfolio size of Dutch buy-to-let landlords is also small. Most Dutch buy-to-let landlords have only one or two dwellings in their portfolio. As a result, the use of a private company as ownership structure is small in both countries, but slightly higher in the Netherlands. These findings indicate that the Dutch buy-to-let market looks slightly more professional. Since the English private rental sector started to grow earlier, it would have been expected that some buy-to-let landlords would have expanded their portfolio over time and/or became a private company. These differences in the average portfolio size can also not be completely explained by the use of investment mortgages. These mortgages are more often used in England, but especially by the larger landlords. Most landlords with one dwelling in their portfolio financed this dwelling with their personal savings instead of a mortgage. Based on these findings, it is not expected that the Dutch buy-to-let market will converge towards the English buy-to-let market in the future. It is nevertheless expected that the overall Dutch buy-to-let market will grow in the coming years. The demand for private rental dwellings will likely remain high because the allocation of social rental dwellings and mortgage have become stricter. The more stringent regulations for mortgages will also affect the buy-to-let landlords since they will need to have enough personal savings to be able to invest in residential property. It is therefore expected that particularly current landlords will expand their portfolio over the coming years. These landlords will possibly also profit from the expanded exemption of the Landlord Levy. Regarding the English buy-to-let market, it is more uncertain whether this market will continue to grow in the coming years. The new measures of the British government and the Bank Of England have made it less attractive to invest in rental dwellings. Although the goal of most of these measures is to professionalise this sector by improving the quality and lowering the financial risks, it is not clear yet whether the smaller unincorporated landlords will be hit hardest by these measures. These measures will especially affect the larger landlords with leveraged portfolios. It is nevertheless expected that more English buy-to-let landlords will move to a limited company structure because of the changes to the mortgage interest income tax relief for buy-to-let mortgages.

This paper has only provided some first insights in the differences between the Dutch and English buy-to-let market. More research needs to be carried out to create a better idea of these differences and the potential reasons for these differences. For this paper, micro data was used to study the Dutch buy-to-let market and surveys to study the English buy-to-let market. This made it difficult to directly compare both markets as the same information was not always available. Furthermore, the quality of the Dutch dataset was not optimal since it seemed as second homes or vacation homes were included in this dataset. In addition, not much is known on the Dutch buy-to-let mortgage market. It was therefore not always possible to relate the Dutch findings to the Dutch buy-to-let mortgage market. Last, the findings have only been related to the historical development of the private rental sector and the use of investment mortgages. It is likely that other contextual factors also influence the characteristics of the two buy-to-let markets. These factors, such as rent regulation, could maybe explain some of the differences. Consequently, it would be interesting to expand this study by relating the findings to other contextual factors. In addition, it would be interesting to conduct the same study in five years' time as this makes it possible to study the potential consequences of the recent Dutch and English policy measures. The current data could be compared to new data to see how these measures have affected both buy-to-let markets. Last, the buy-to-let markets of other countries could be studied to gain more insight into the relation between different contextual factors and the characteristics of buy-to-let markets. These insights are not only interesting but can also be used to evaluate new policy measures.

REFERENCES

Aalbers, M., Bosma, J., Fernandez, R., & Hochstenbach, C. (2018). *Buy-to-let - Gewikt en gewogen*. KU Leuven & UvA.

Capital Value. (2018). *De woning(beleggings)markt in beeld 2018*.

CBS. (2018). *Kerncijfers wijken en buurten 2017*. Retrieved from http://statline.cbs.nl/StatWeb/publication/?VW=T&DM=SLNL&PA=83765NED&LA=NL

Council of Mortgage Lenders. (2017). *Buy-to-let mortgages and the private rented sector*. Retrieved from https://www.cml.org.uk/policy/policy-updates/all/buy-to-let/

Countrywide. (2014). *93% of UK landlords own just a single rental property*. Retrieved from https://www.countrywide.co.uk/news/2014/countrywide-quarterly-lettings-index-q1-2014/

Elsinga, M., & Lind, H. (2013). The Effect of EU-Legislation on Rental Systems in Sweden and the Netherlands. *Housing Studies*, 28(7), 960-970.

Gibb, K., & Nygaard, C. (2005). The Impact of Buy to Let Residential Investment on Local Housing Markets: Evidence from Glasgow, Scotland. *International Journal of Housing Policy*, 5(3), 301-326.

Hekwolter of Hekhuis, M., Nijskens, R., & Heeringa, W. (2017). The housing market in major Dutch cities. *Occasional Studies*, 15(1), 7-59.

Hoekstra, J. (2017). Reregulation and Residualization in Dutch social Housing: a critical Evaluation of new Policies. *Critical Housing Analysis*, 4(1), 31-39.

Jonker-Verkaart, M., & Wassenberg, F. (2015). *Kansen voor particuliere huur in Nederland*. Platform31, Den Haag.

Kadaster. (2017). *Information on the housing transactions and the use of mortgages*. Unpublished data.

Kadaster. (2018). *Woningvoorraadbestand*. Unpublished raw data.

Kemp, P. (2015). Private Renting After the Global Financial Crisis. *Housing Studies*, 30(4), 601-620.

Kop-Munt. (2017). *Kopen om te verhuren steeds populairder*. Retrieved from https://www.kop-munt.nl/kop/posts/kopen-om-te-verhuren-steeds-populairder/

Leyshon, A., & French, S. (2009). 'We all live in a Robbie Fowler house': The geographies of the buy to let market in the UK. *The British Journal of Politics and International Relations*, 11(3), 438-460.

Martin, C., Hulse, K., & Pawson, H. (2018). *The changing institutions of private rental housing: an international review*. Australian Housing and Urban Research Institute, Melbourne.

Meadows, S. (2017). *Buy-to-let lending squeeze: 'some banks won't lend at all'*. Retrieved from https://www.telegraph.co.uk/investing/buy-to-let/buy-to-let-lending-squeeze-banks-wont-lend/

Ministry of Housing, Communities and Local Government. (2018a). *English Housing Survey – Headline Report*, 2016-17. Retrieved from https://www.gov.uk/government/statistics/english-housing-survey-2016-to-2017-headline-report

Ministry of Housing, Communities and Local Government. (2018b). *English Housing Survey headline report 2016 to 2017: section 2 housing stock tables*. Retrieved from https://www.gov.uk/government/statistics/english-housing-survey-2016-to-2017-headline-report

Ministry of Housing, Communities and Local Government. (2018c). *English Housing Survey headline report 2016 to 2017: section 1 household tables*. Retrieved from https://www.gov.uk/government/statistics/english-housing-survey-2016-to-2017-headline-report

Mortgages for Business. (n.d.). *Buy to let mortgages*. Retrieved from https://www.mortgagesforbusiness.co.uk/property-finance/customer/buy-to-let-mortgages/buy-to-let-explained/risks-borrowing-criteria/

NIBC Direct. (n.d.). *De investeringshypotheek*. Retrieved from https://www.nibcdirect.nl/hypotheek/nibc-direct-investeringshypotheek/

Ollongren, K. (2018). *Integrale visie op de woningmarkt (Letter of Government)*. Retrieved from https://zoek.officielebekendmakingen.nl/kst-32847-440.html

Rijksoverheid. (n.d.). *Verhuurderheffing*. Retrieved from https://www.rijksoverheid.nl/onderwerpen/huurwoning/verhuurderheffing

RNHB. (n.d.). *De financiering van RNHB*. Retrieved from https://www.rnhb.nl/financieren

Rouwendal, J. (2007). Mortgage interest deductibility and homeownership in the Netherlands. *Journal of Housing and the Built Environment*, 22(4), 369-382.

Sateriale, C. (2016). *Still small but growing: How have landlord characteristics changed since 2010?* Retrieved from https://www.cml.org.uk/news/news-and-views/still-small-but-growing-how-have-landlord-characteristics/

Scanlon, K., & Whitehead, C. (2016). *The profile of UK private landlords*. Council of Mortgage Lenders, London.

Van der Harst, F., & De Vries, P. (2017). *Wie kopen er hypotheekloos?* Kadaster.

Van der Heijden, H. (2013). *West European housing systems in a comparative perspective*. Amsterdam: Delft University Press.

Van Middelkoop, M., & Schilder, F. (2017). *Middeninkomens op de woningmarkt. Ruimte op een krap speelveld*. Planbureau voor de Leefomgeving, Den Haag.

Whitehead, C., Scanlon, K., Monk, S., Tang, C., Haffner, M., Lunde, J., . . . Voigtländer, M. (2016). *Understanding the Role of Private Renting: A Four-Country Case Study*. Copenhagen: Boligøkonomisk Videncenter.

Energy Efficient Mortgages Initiative – The engagement of the mortgage industry to deliver sustainable finance for the housing sector

By Luca Bertalot, Coordinator of the EeMAP[1] & EeDaPP[2] Initiatives, Jennifer Johnson, Deborah Leboullenger, EMF-ECBC

1. INTRODUCTION: LINKING CLIMATE CHANGE, ENERGY EFFICIENCY, FINANCING AND THE HOUSING STOCK

Climate change and the need for a response from all sectors of society and industry is widely acknowledged. It is estimated that to maintain a 1.5°C global temperature increase trajectory and limit climate change requires a reduction of 80% of carbon emissions from a 1990 base, as agreed at the 2015 Paris Climate conference COP21. Yet climate change means that demand for energy to heat and cool properties will increase unless action is taken to increase the efficiency of the housing stock. Furthermore, any supply issues will raise prices and hit hardest those with limited purchasing power leading to negative social and health outcomes.

Therefore, the need for energy efficiency has never been greater. However, Europe's housing stock is old and energy inefficient; the Buildings Performance Institute Europe [BPIE] estimates that only 3% of the current stock is constructed or improved to the highest energy standards[3]. In addition, the replacement rate of the stock is very low, seldom exceeding 1% per annum and less in periods of economic slowdown. Although some progress towards improvement has been made, a much faster speed and depth of upgrade is required[4]. Indeed, the 2018 IPCC [Intergovernmental Panel on Climate Change] report stated that building renovation is critical to achieving climate change targets and calls for "rapid and far-reaching transitions" based on reduction in energy use demand, as well as moves from fossil fuel to clean electricity and better insulation to building envelopes to reduce the need for heating and cooling.

The implication of the above is that policies and regulations aimed at influencing the urgency and specification of building renovations, and overall occupier behaviours are likely to be tightened further over time. The EU is going to set itself a binding energy efficiency target of 32.5% for 2030, with a clause for an upwards revision by 2023. It is widely anticipated that around €180 billion of additional investments a year is needed to reach this target.

As the largest source of external financing in the EU, banks are the backbone of the financial system. Lending and financing by this sector need to be fully aligned with the EU's sustainability objectives if those goals are to be achieved. Considering that the EU's building stock is responsible for 40% of the EU's total energy use, and that the value of the European mortgage market is equal to 53% of the EU's GDP, there is huge potential to unlock the benefits of mortgage financing to support energy efficiency. Bridging these two worlds, which until recently have been operating in a largely disconnected manner, has the potential to deliver an effective way to tackle the challenges arising from climate change and a low-carbon energy transition.

Against this background, the European Mortgage Federation - European Covered Bond Council [EMF-ECBC] has been working on the development of an "energy efficient mortgage" according to which building owners are incentivised to improve the energy efficiency of their buildings or acquire an already energy efficient property by way of favourable financing conditions linked to the mortgage. This mortgage financing mechanism will be supported by a data protocol and portal to collect and access large-scale empirical evidence relating to energy efficient mortgage assets, allowing a comprehensive analysis of the energy efficiency features which potentially have a positive impact on property value and reduce a bank's asset risk. The Energy Efficient Mortgages Initiative, as the project is known, consists of two parallel projects, the Energy efficient Mortgages Action Plan [EeMAP] and the Energy Efficient Data Portal & Protocol [EeDaPP], both funded via the European Commission's Horizon 2020 Programme.

Significantly, the Energy Efficient Mortgages Initiative represents the first time that a group of major banks and mortgage lenders, as well as data providers, companies and organisations from the building and energy industries together with the valuation profession have proactively come together to consider and develop private financing of energy efficiency.

2. ENERGY EFFICIENT MORTGAGES INITIATIVE - THE CONCEPT AND ITS POLICY BACKGROUND

The Energy Efficient Mortgages Initiative was born from the realisation that:

(i) Banks, in financing the purchase of property, can play a game-changing role in supporting the EU's energy savings targets, by bringing energy efficiency into the conversation between banks and consumers by means of a standardised approach to the financing of energy efficient buildings/renovation, and

(ii) Deliver a new asset class, an energy efficient mortgage, which could be used for the purposes of green bond and green covered bond issuance.

One of the key premises of the initiative is that energy efficiency has a positive impact on credit risk. The incentives the energy efficiency mortgage will offer borrowers (e.g. reduced interest rates and/or increased loan amount)

[1] Energy efficient Mortgages Action Plan (EeMAP). This project has received funding from the European Union's Horizon 2020 research and innovation programme under Grant Agreement No. 746205.
[2] Energy efficiency Data Protocol and Portal (EeDaPP). This project has received funding from the European Union's Horizon 2020 research and innovation programme under Grant Agreement No. 784979.
[3] Buildings Performance Institute Europe (2017) State of the Building Stock Briefing.
[4] Artola, I; Rademaekers, K; Williams, R; and Yearwood, J. (2016) Boosting Building Renovations: what potential and value for Europe. European Parliament report.

aim to reflect the reduced credit risk of these loans. Energy efficiency frees up disposable income which can positively impact borrowers' ability to service their loan, thereby lowering the Probability-of-Default [PD]. Improved energy efficiency can also increase the value of the property, thereby lowering the loss for the bank in the case of default, i.e. the Loss-Given-Default [LGD].

Given the fundamental role of these risk indicators in the calculation of banks' capital requirements, establishing a correlation between energy efficiency and PD and LGD provides a strong business case for lenders to originate energy efficient mortgages. If a positive correlation can be established using large-scale empirical evidence – as envisioned by the initiative – we believe that the lower risk of energy efficient mortgages should be recognised by regulators via a realignment of the capital requirements for these exposures.

Increased loss mitigation capacity + Enhanced loan-to-value via green value + Lower probability of default = Reduced capital charges

The importance of this alignment is recognised by the European legislators as illustrated by a range of policy actions aimed to bring into line the financial sector with commitments on climate change. As part of these efforts, the European Commission published an Action Plan on Financing Sustainable Growth in March 2018, with the aim of: (a) reorienting capital flows towards sustainable investment, in order to achieve sustainable and inclusive growth; (b) manage financial risks stemming from climate change; (c) foster transparency and long-termism in financial and economic activity.

At the One Planet Summit in Paris in December 2017, the EU Commission made an announcement that it is "looking positively" at the possible introduction of a "green supporting factor" in prudential rules to boost lending and investments in low-carbon assets. In this sense, the Commission is currently looking at the feasibility of the inclusion of risks associated with climate and other environmental factors in institutions' risk management policies and the potential calibration of capital requirements of banks. The aim is to take into account such factors, where this is justified from a risk perspective, to safeguard the coherence and effectiveness of the prudential framework and financial stability. Any recalibration of capital requirements would however need to be based on reliable data and the assessment of the prudential risk of banks' exposures.

"Energy efficient mortgages are a promising tool to scale up sustainable finance. I encourage the work done by @EMF_ECBC to develop these products. #SustainableFinance." **Valdis Dombrovskis, European Commission Vice-President for the Euro and Social Dialogue, also in charge of Financial Stability, Financial Services and Capital Markets Union**

3. THE DEFINITION OF AN ENERGY EFFICIENT MORTGAGE [EEM]

Both the EU Commission and the EEM initiatives rest on a standardised classification and benchmark (taxonomy) as to what assets can be considered as significantly contributing to environmental goals. Robust, consistent and widely-supported guidelines about what should be considered to qualify as an environmentally sustainable property is thought to enhance transparency and provide certainty for investors facilitating their due diligence processes. Transparency in relation to the underlying asset is equally vital from a risk management and therefore macro prudential and financial stability perspectives.

The EU Commission is currently consulting on its sustainability taxonomy to provide a framework for classifying all potential assets or activities against a comprehensive set of sustainability goals – from climate change to broader environmental and social goals, including the Sustainable Development Goals. The EU taxonomy is expected to be finalised later this year followed by further policy action based on these common metrics, including standards, labels, and any potential changes to prudential rules.

Although narrower in scope, the EEMI aims to achieve the same goals as the EU taxonomy by way of a cross-sectoral market approach and by specifically incorporating sustainability factors into mortgage lending decisions. In this sense, EEMI is a concrete response to the policy goals of the European Union to integrate sustainability considerations into its financial system and to facilitate the clean energy transition in line with the Paris Agreement.

The EEM definition was launched in December 2018 and consists of high-level, principles-based guidelines for the technical assessment and valuation of eligible properties. The definition provides clear eligibility criteria for assets and projects that can be financed by energy efficient loans and for the tagging of existing assets in banks' portfolios. The EEM definition provides the protocols to ensure appropriate lending secured against properties which are likely to both lower credit risk and support climate change mitigation and adaptation.

The EEM definition is the result of more than two years of extensive and wide-ranging engagement and consultation with banks, real estate advisory services providers, built environment professionals and utilities. We see this as a real and tangible achievement as we are now actually at a stage where the definition and the supporting tools can be implemented by banks to develop and rollout corresponding energy efficiency mortgage products. At the same time, lending institutions are able to identify and tag existing mortgages that already meet the requirements laid down in the guidelines which, in turn, will help to deliver the data required to substantiate a link between energy efficiency and reduced credit risk.

"EEMs are intended to finance the purchase/construction and/or renovation of both residential (single family & multi-family) and commercial buildings where there is evidence of: (1) energy performance which meets or exceeds relevant market best practice standards in line with current EU legislative requirements; and/or (2) an improvement in energy performance of at least 30%.

This evidence should be provided by way of a recent EPC rating or score, complemented by an estimation of the value of the property according to the standards required under existing EU legislation. It should specifically detail the existing energy efficiency measures in line with the EEM Valuation & Energy Efficiency Checklist.

To consult the full definition, please click here.

As the technology and the science around sustainability is dynamic and evolving, so too are social expectations as well as investor and market needs. Therefore, both the EU taxonomy and the EEM definition require continuous review. Further alignment between the two frameworks will also be needed to make sure that lenders are able to meet the proposed criteria and avoid market confusion, fragmentation and inconsistencies. Credit institutions do not fall within the immediate scope of the EU taxonomy, however given that many credit institutions are already active in financing green loans and issuing green bonds, the long-term expectation is that compliance will be important, otherwise there is a risk that the means to finance climate mitigation will not be available.

Building on existing understandings and extensive dialogue and cooperation between relevant stakeholders from the financing and banking communities, property and construction sectors, as well as policymakers is equally critical for the successful uptake of the definition. We believe it is important that taxonomy and EEMI guidelines are regularly reviewed and updated based on feedback received from market participants, ensuring that the metrics and thresholds are as robust and relevant as possible, and reflect the state of the markets. In this sense, a strong and transparent governance structure is indispensable to coordinate this work and to overview the implementation of existing standards.

"I believe the EEMI will bring a positive change in the market, providing more accessible financing for energy efficiency in buildings. It will facilitate the implementation of energy efficiency investments where they are most needed, in the buildings sector. Having agreed on a definition is an important step, opening the way for a quick roll-out of energy efficiency mortgages. The definition agreed upon is operational and easy to use, and can be strengthened in time, to match the high level of ambition of the EEMI, and to make better use of the tools provided by the European legislative framework." **Gerassimos Thomas, European Commission, Deputy Director-General for Energy**

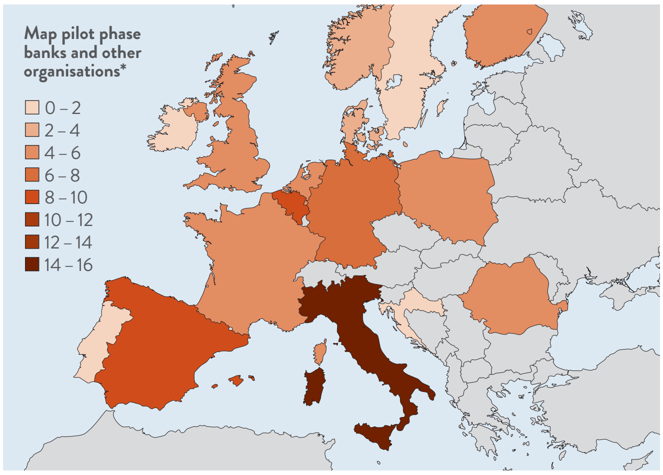
4. THE MARKET ROLLOUT OF ENERGY EFFICIENT MORTGAGES

A number of ingredients are key to make the EEMI succeed and have a large-scale market uptake. First, the energy efficiency mortgage framework relies on trust and a carefully aligned interest chain among all the participating actors: financial institutions, regulators, energy assessors, utility companies, contractors and valuers. This mutual trust is underpinned by market transparency and reliable performance data. Green financing is a quickly growing market, however market actors still struggle with the current lack of standardised definitions, adequate data and robust measurement indicators. Finally, consumer demand for energy efficiency mortgages is crucial and this can only be ensured by increasing consumer awareness of the benefits of energy efficiency.

Currently, forty-seven lending institutions have signed up to implement the guidelines on energy efficient mortgages. As of July 2019, these lending institutions represented 50% of mortgages outstanding in the European Union, equal to 25% of EU GDP, so they represent a significant critical mass on the market. The Pilot Scheme is a unique opportunity to work with lenders and relevant stakeholders to understand how the market can grow and what barriers need to be overcome.

The map at Figure 1 shows the location of the participants in the Pilot Scheme with a clear national link. In addition, seven international/European supporting organisations have to be taken into account.

FIGURE 1 | 79 CONFIRMED PARTICIPANTS (47 BANKS AND 32 OTHER ORGANISATIONS)



* Data taken from Hypostat 2018
** Figures taken from investor reports of the participating institutions.
100% is considered when the national mortgage association is pilot scheme member

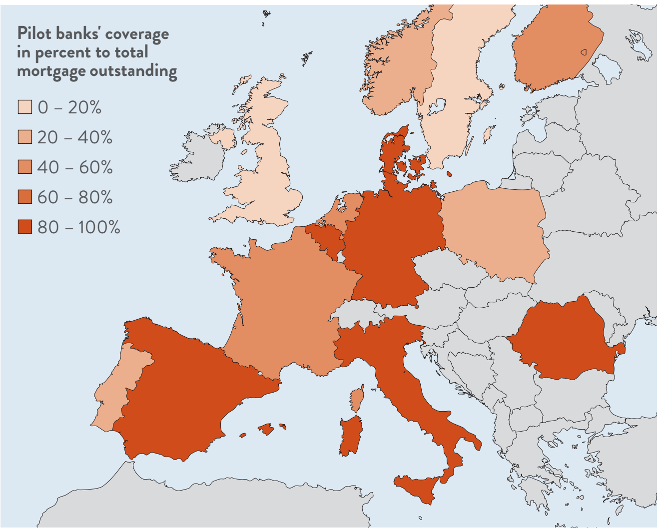
FIGURE 2 | PILOT SCHEME: BANKS' COVERAGE

COUNTRY	PILOT PARTICIPANTS	PILOT BANKS	TOTAL OUTSTANDING MORTGAGE MARKET*	MORTGAGE LOAN PORTFOLIO OF PARTICIPANTS**	COVERAGE IN %
BE	10	8	246,528	246,528	100.00
DE	6	4	1,445,987	1,445,987	100.00
DK	2	1	251,705	251,705	100.00
ES	9	3	490,806	490,806	100.00
FI	4	3	97,781	42,670	43.64
FR	5	4	1,009,562	193,150	19.13
HR	1	0	13,604	–	0.00
IE	1	0	83,301	–	0.00
IT	15	10	379,054	379,054	100.00
NL	4	3	714,367	341,000	47.73
NO	2	2	280,500	102,635	36.59
PL	3	2	100,579	35,100	34.90
PT	1	1	93,952	29,500	31.40
RO	4	2	15,820	15,820	100.00
SE	1	1	408,639	41,200	10.08
UK	4	2	1,575,990	89,509	5.68
EU/international	7	1	–	–	–
Total EEA			**6,927,675**	**3,704,664**	**53.48**
Total EU			**7,250,649**	**3,602,029**	**49.68**
Tota Euro area	**79**	**47**	**4,821,148**	**3,101,160**	**64.32**

* figures taken from Hypostat 2019.
**figures taken from investor reports of the participating institutions.
**for those countries where figures for 2018 were not available, 2017 figures have been used.

The map at Figure 3 displays the latest state of commitments made by 47 banks across the EU to participate in the Pilot Scheme. In total these banks represented EUR 3,602 bn (50%) in total outstanding mortgage loans of the EU.

FIGURE 3 | COVERAGE OF PILOT BANKS TO TOTAL MORTGAGE OUTSTANDING IN 2018*



To support Pilot Scheme participants, **National Market Hubs** have been set up across Europe with a view to achieving coordination at national level and ensuring market consensus and implementation for energy efficient mortgages [EEMs]: The objectives of this stakeholder collaboration is to:

- Address and avoid market fragmentation and barriers to the deployment of EEM.
- Raise awareness among consumers/borrowers and lending institutions about the added value of EEMs and investment in energy performance.
- Sensitise banks and representatives of the property/construction sectors about their role, responsibilities and possibilities in contributing to scale up finance for energy-efficient and sustainable buildings.
- Help build the business case for EEM by presenting country- and city-specific initiatives.
- Develop guidelines and training, capacity building and improve existing skills sets.
- Drive alignment and comparability to address data gaps, valuation instructions and improvements to building codes/standards, and evaluations of performance.
- Facilitate the verification of compliance with thresholds and guidelines set out in definition.

The national hubs are loosely organised around **three main workstreams**:

- **EEM product development –** to deal with the practical implementation of the EEM framework and definition throughout the whole mortgage lifecycle, from origination (marketing, customer journey) to asset eligibility and risk assessment as well as dedicated EEM bond issuance.
- **Data –** the focus is on closing the information gap and to support stakeholders, financing decision making and mortgage underwriting with consistent, robust, comparable and easily accessible data. This includes promoting data transparency, consistency and information exchange; providing guidance and facilitating accessibility, disclosure, understanding and comparability of building performance and financial data.
- **Partnerships/stakeholder collaboration –** to explore and ensure value chain integration to streamline administrative costs, data management, liabilities, performance guarantees, etc.

To guide the work of the National Market Hubs, the project consortium is developing a roadmap intended as a tool to be used to assess the maturity of European markets so that actors in different sectors can understand how the market might progress to the next stage of maturity and what their role in that could be. It will also be used to map the maturity of an individual organisation operating in that market to allow them to see how they compare to competitors and what they need to do to lead the market transition.

FIGURE 4 | EXAMPLE OF A MARKET DEVELOPMENT ROADMAP AND ENABLERS

STAGE	BANKS	GOVERNMENT	INDUSTRY
Green tagging	Match loan portfolio to EE data (i.e. EPCs/ other voluntary certification schemes)	Make EPC database accessible to banks / Improve data in EPCs	Work with lenders to ensure high quality EPCs / certifications can be mapped to loans
Bond issuance	Issue green bonds against existing tagged loans	Green Bond standards Disclosure rules	Performance/ compliance monitoring
EEMs for new build	Offer green mortgages to new builds that meet EEM criteria	Enforcement and guidelines on NZEB standards	Partner with lenders to develop new builds which will meet EEM criteria
EEMs for renovation	Advise clients on options, benefits and different sources of finance	Develop: • Quality assurance schemes • Building renovation roadmaps • Incentives to drive demand	Partner with lenders to streamline deliver for consumer
EEMs for all	Fully account for EE in affordability checks	Energy efficiency/ sustainability in prudential requirements	Offer training to banks / brokers

National market hubs are supported by an **Advisory Council**, which includes representatives from the European Commission, the European Investment Bank, the European Bank for Reconstruction and Development, the International Finance Corporation, The World Bank, UNEP Finance Initiative, the Scottish Government, the Lithuanian Ministry of Finance, the Climate Bond Initiative and Autonomous Province of Trento - Agency for Water Resources and Energy. The role of the Advisory Council is to promote and facilitate dialogue between stakeholders from the financing and banking communities, property and construction sectors, as well as policymakers with the aim to address specific market failures and the criticalities identified during the implementation phase.

5. NEXT STEPS AND OUTLOOK

One of the key market enablers of the large-scale uptake of energy efficiency mortgages is thought to be the development of an Energy Efficient Mortgage Label. The primary objective of the Label will be to reassure markets and regulators that mortgages comply with the EEM definition and guidelines as well as demonstrate a responsible commitment to transparency and common reporting on quantitative qualitative performance indicators. A Label Committee will ensure oversight and ongoing alignment of the EEM definition with high quality standards and market best practice at EU and national level. It will also be responsible for improving regulatory and market recognition of EEM as a new asset class.

The origination of energy efficiency mortgages may include additional challenges for defining, assessing, monitoring and maintaining the improved environmental performance, and transparently communicating performance to regulators and other market actors over the lifetime of the mortgage. In this sense, the Label will help lending institutions to follow the defined EEM criteria to effectively de-risk their portfolios by identifying energy and climate risks by determining which loans and underlying assets are better. By improving the access to relevant and transparent mortgage information for investors, regulators and other market participants via a consistent reporting template, the Label can become a powerful communication tool to further help the securitisation and issuance of green bonds.

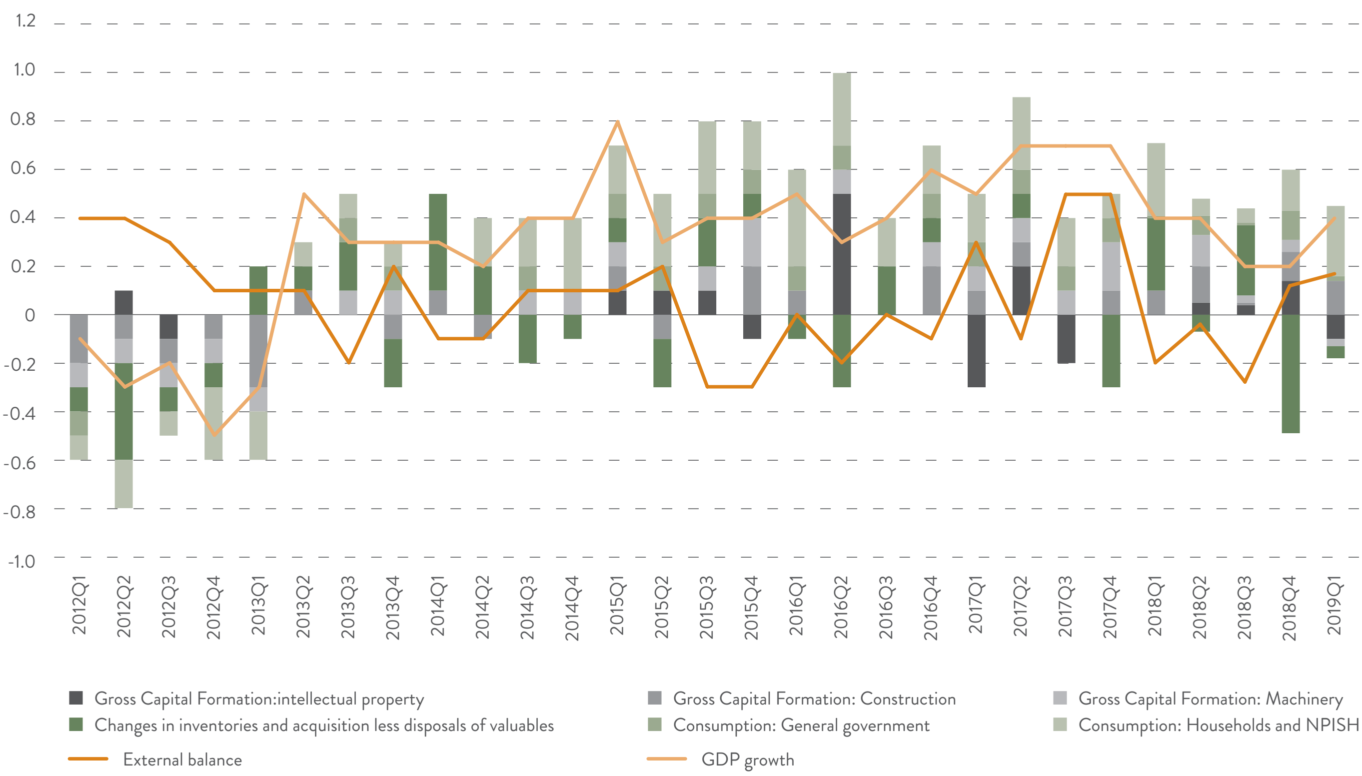
Housing and Mortgage Markets in 2018

MACROECONOMIC OVERVIEW

In 2018, macroeconomic fundamentals continued to recover according to the positive trend observed in the previous year, with all countries recording positive GDP growth. Likewise, unemployment figures continued to decrease and inflation picked up, generating an overall positive macroeconomic environment.

In 2018, the Euro area experienced a positive evolution of the main macroeconomic indicators, still boosted by the growth experienced in 2017 which was the strongest of the last 10 years. GDP grew on a yearly basis by 2.0%, a slightly smaller figure and a slower growth rate than during the previous year but aligned with the evolution of short-term indicators and market expectations. In this context, forecasts expect GDP growth to further slowdown in 2019 and 2020, with modest increases expected of 1.2% and 1.5% respectively. As can be seen on the chart below (Chart 1), the Euro area economy in 2018 grew by a modest 0.4% on a quarterly basis, 0.3 pps lower than the growth rate recorded in the last quarter of 2017 reflecting the loss of economic momentum. This data point to a decelerating economy, marked by the reduction of the importance of manufacturing and trade. Furthermore, the external balance presented negative figures throughout the year and only started recovering in the last quarter when it showed again modest positive values. Despite trade tensions and the political uncertainty experienced worldwide, consumption continued to be the main contributor to positive economic development and remained resilient, followed by gross capital formation, especially in the construction sector. The latter experienced the fourth consecutive year of growth, despite the slight deceleration suffered in the first half of the year, and continued to benefit from strong housing markets.

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



Source: Statistics Data Warehouse – European Central Bank

Despite the positive contribution of private consumption and as was expected, this component also lost some strength as a result of the general weak economic performance. This slight reduction in private consumption increased the saving rates of European households. However, in the coming years private consumption is expected to pick up, fuelled by continuous job creation as well as moderate wage growth; in other words, private consumption will be supported by a positive and improving labour market. Furthermore, in some Member States private consumption will be also boosted by expansionary fiscal measures. The consumer confidence indicator in the Euro Area started 2018 at values close to -3 and -4 index points, and declined further until the beginning of 2018 when values started to recover thanks to a more positive assessment of the past financial situation and more optimistic expectations regarding general economic developments in the future. Moreover, the expectations for consumers on their financial situation and their willingness to purchase remained stable.

On the public expenditure side, government consumption increased in the Euro area as well as in the non-euro area countries in 2018.

Economic growth favoured the recovery of the labour market and employment levels increased in 2018, with approximately 1.5 mn jobs created in the Euro area. This number is smaller than in 2017 and 2016 due to the loss of economic momentum, but nevertheless remains significant. Most importantly, in the last quarter of 2018 the number of people employed in the euro are was higher than that before the crisis (Q1 2008) by a noticeable 3.0%, pointing to the recovery experienced since the start of the financial crisis.

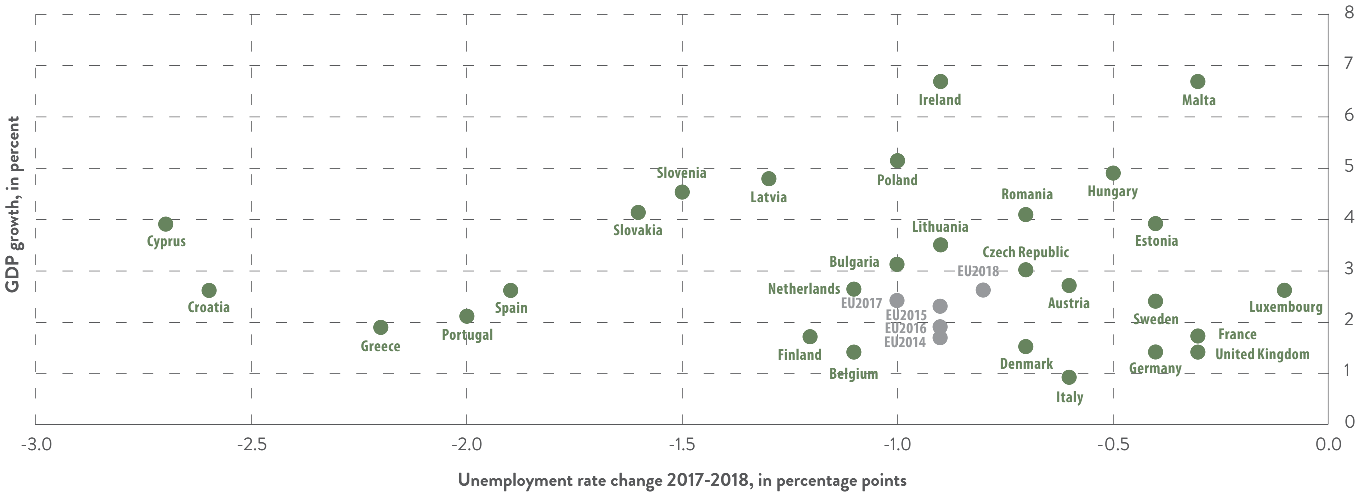
Despite the slower economic growth, the labour market continued to perform well throughout the year, and in the first quarter of 2019 the unemployment rate for the EU reached the lowest level since the third quarter of 2008.

Employment levels continued to increase and as can be observed in Chart 2 the labour market situation improved in all countries for the second consecutive year. Employment did not only continue to recover, but also helped to counteract rather weak growth in labour productivity.

Furthermore, all countries of the EU remained, as was the case in 2017, in the positive quadrant of the chart, demonstrating a positive evolution of GDP as well as of unemployment levels. Nevertheless, the differences among countries when it comes to the latter are still remarkable with some countries experiencing high levels of unemployment e.g. 19.3% in Greece, and others only modest levels e.g. 2.2% in the Czech Republic. Nevertheless, convergence was ongoing with those countries with lower GDP levels experiencing higher growth and greater improvements in relation to unemployment rates.

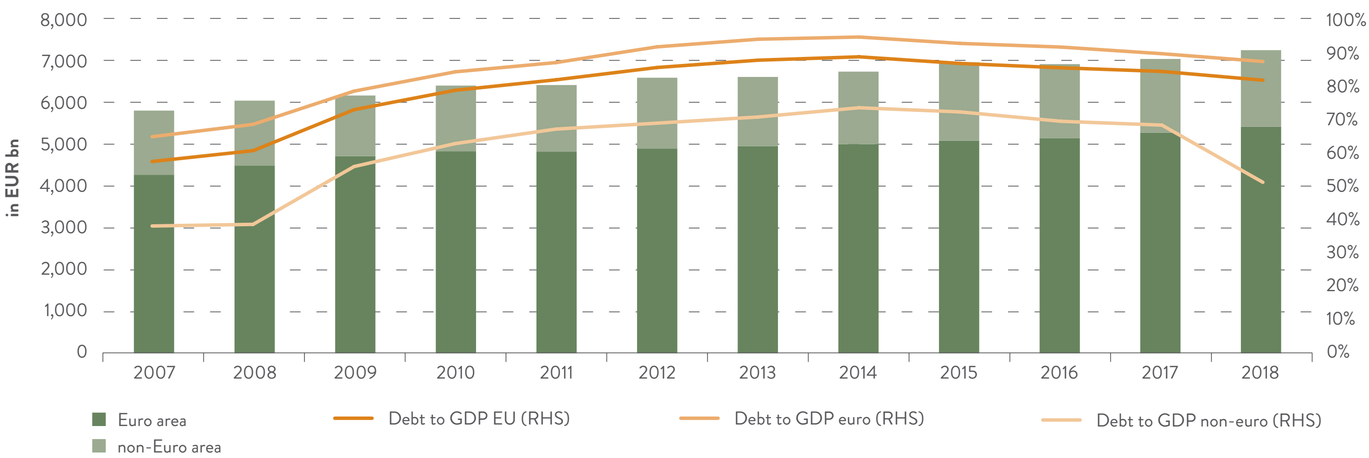
Together with the positive performance of the labour market in 2018, public finances continued to improve mainly due to the positive macroeconomic context and the stable and low interest rate levels which helped to reduce the level of indebtedness of governments. This trend was followed by nearly all EU Member States and it is expected to continue in the coming years. In this context, the share of debt to GDP decreased for the EU as well as for the Euro area and non-euro area countries. Despite the reduction in the share of debt to GDP, the amount owed by the Eurozone governments amounted to more than EUR 5 bn at the end of 2018.

CHART 2 | UNEMPLOYMENT CHANGE AND GDP GROWTH IN 2018, PERCENT



Source: Eurostat

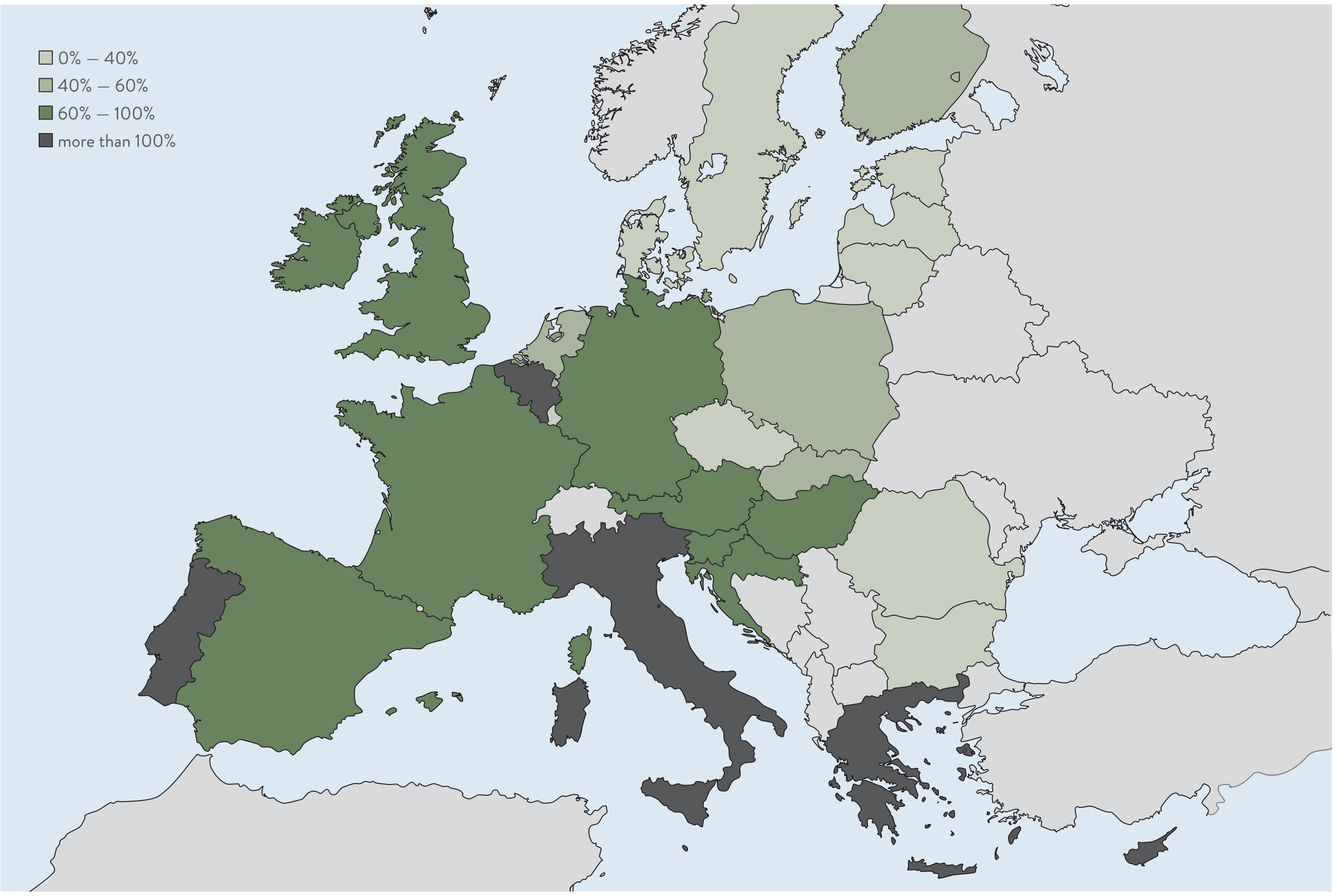
CHART 3 | GOVERNMENT SPENDING EVOLUTION IN THE EURO AREA AND IN THE NON-EURO AREA COUNTRIES



Source: Eurostat

With a view to providing a better understanding of the heterogeneous context in which the various EU governments shape their policies, including those dealing with housing, it is interesting to compare how public finances have evolved before and after the crisis. In Map 1, we can see how Southern European countries together with Belgium need to take into account significant public debt, which in some cases exceeds annual GDP, while in countries such as the Baltics, Scandinavia, Romania and Bulgaria, public debt has a lesser significance in the political agenda.

MAP 1 | DEBT TO GDP IN EU 28 IN 2018



Source: Eurostat

On an annual basis in 2018, HICP inflation continued to approach the 2% inflation rate from the lower-bound. Throughout the year, on a monthly basis, inflation growth was heterogenous and reached its peak in October. This increase in inflation was mainly driven by energy prices and followed by food, alcohol and tobacco. The lowest price increases were recorded in non-energy industrial goods and services. However, core inflation remained subdued.

Inflation was driven by the favourable labour market and rising wages together with the positive macroeconomic context. Despite these favourable trends, the support given by the ECB through its monetary policy played an essential role in supporting price pressure. Therefore, it is expected that the ECB will continue its supporting programme, regulating interest rates and purchasing assets in order to bring inflation closer to the 2% target.

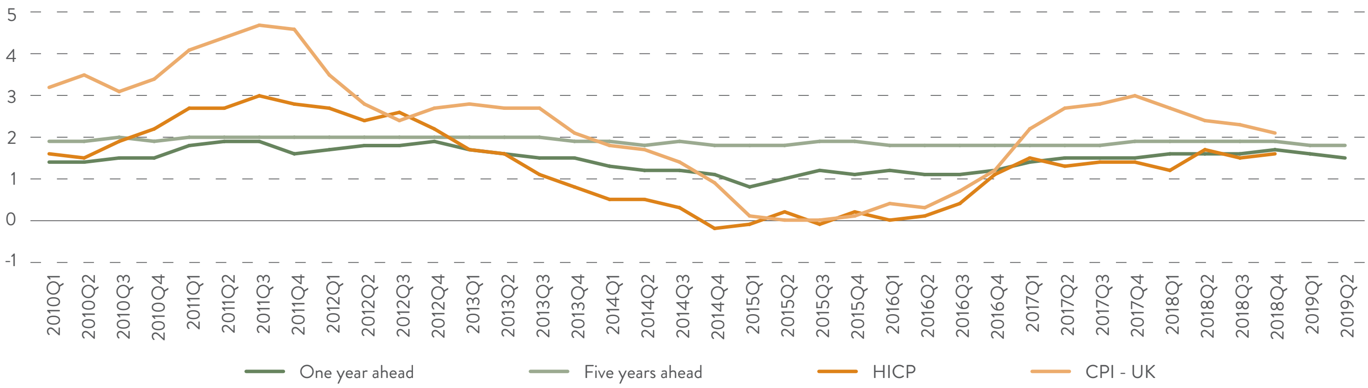
Regarding expectations and as can be seen in chart 4, both market-based and survey-based measures of future inflation declined, with all expectations remaining under the 2% threshold. The inflation expectation for 2019 is 1.5%. This will slightly increase to 1.6% in 2020 and 1.7% in 2021 according to ECB Survey[1].

On a global level, in 2018 the economy suffered an important downturn and a sharper decrease in growth rates than expected, which was especially noticeable in the second half of the year. During the first two quarters of 2018, GDP grew by 0.9% quarter on quarter, while in the third and fourth quarter it grew by 0.8%. The lowest contributors to GDP growth were manufacturing and foreign trade. Manufacturing decreasing throughout the year as a result of declining output and a reduction in new orders. In this context, the global economy is expected to further underperform and reach its lowest growth level during the course of 2018. The recorded overall growth for 2018 was 3.9%, but it is expected to decrease to 3.6% in 2019.

The main reason behind this slowdown was the poor performance of some developed economies and China. This was offset in part by the positive performance of some emerging Asian countries that helped to maintain positive GDP growth. In 2018 trade and political tensions profoundly affected the world economy and generated high levels of uncertainty. Commercial tensions between the US and China and constraints on the supply of crude oil damped economic growth. However, these tensions are expected to recede in 2019.

[1] ECB Survey of professional forecasters (25 January 2019).

CHART 4 | HICP AND INFLATION EXPECTATIONS ONE AND FIVE YEARS AHEAD IN THE EURO AREA AS MEASURED BY THE ECB AND CPI IN THE UK, IN PERCENT



Source: European Central Bank and Bank of England

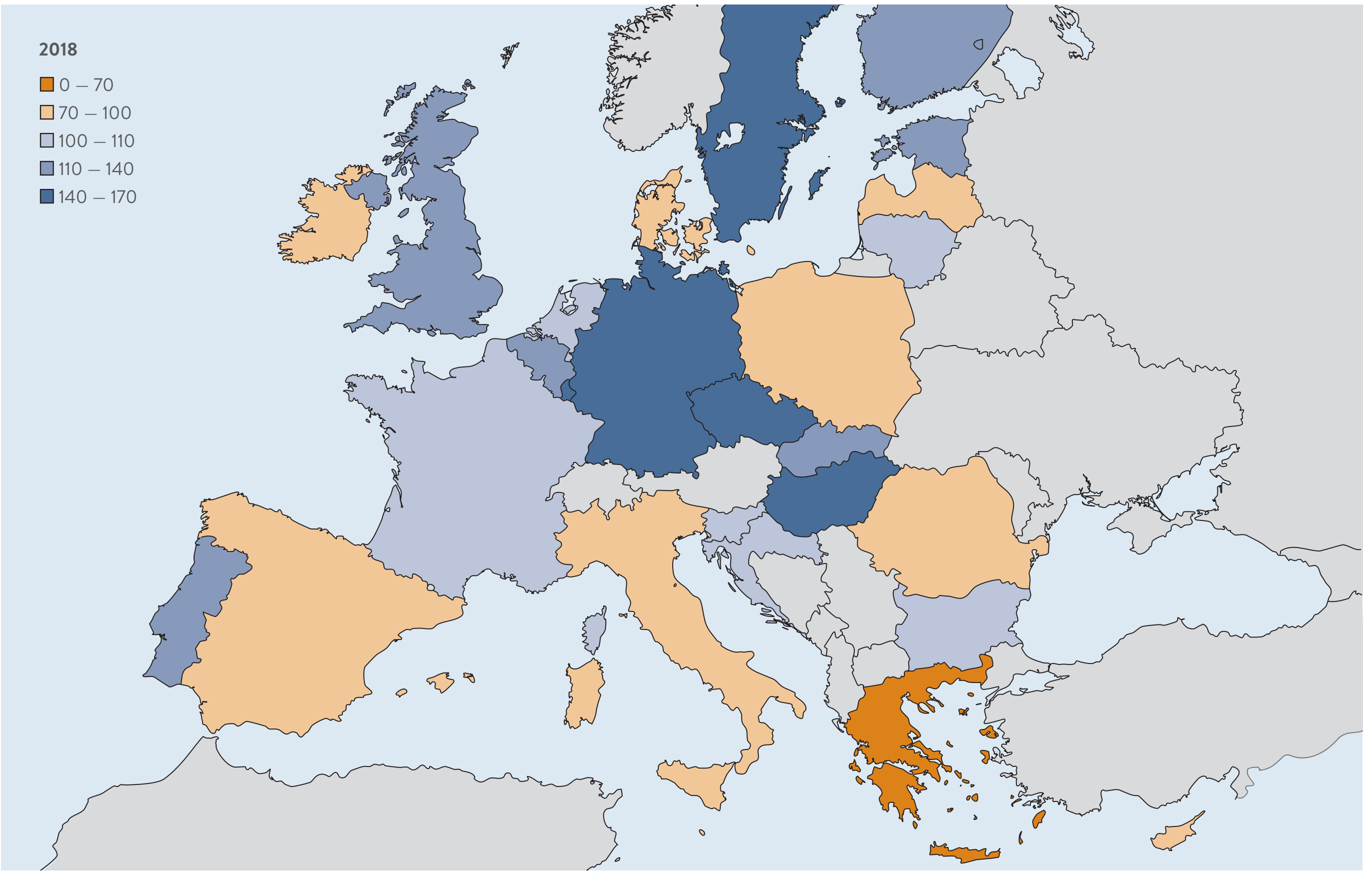
HOUSING MARKET

CROSS COUNTRY COMPSARISON

In 2018 all the countries from our sample, with the exception of Italy, experienced price increases with respect to 2017. In aggregate terms, the EU28's house prices increased by 6.4%, confirming the growth of the previous year. Furthermore, almost 80% of the countries recovered pre-crisis house price levels. Nevertheless, dynamics are still heterogeneous and the pace at which prices grew differed significantly across Member states.

Looking at Map 2 we observe the current house price index evolution in 2018. Aprioristically we can differentiate two groups of countries, those which have house prices below 2007 levels, such as Poland and Romania in the East or Italy in the South, and those which are above, such as Austria, Sweden and Luxembourg. Finally, in Slovenia, Croatia and Denmark prices in 2018 remained virtually unchanged compared to the 2007 levels.

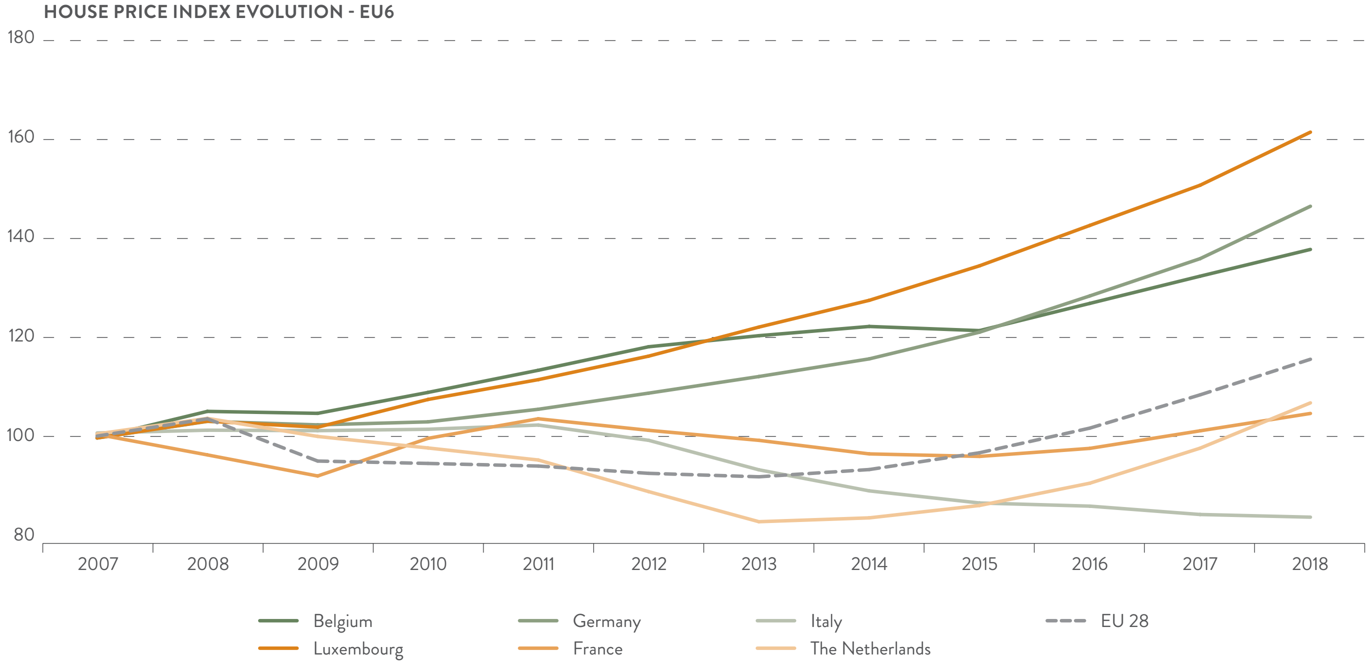
MAP 2 | HPI IN 2018 (2007=100)

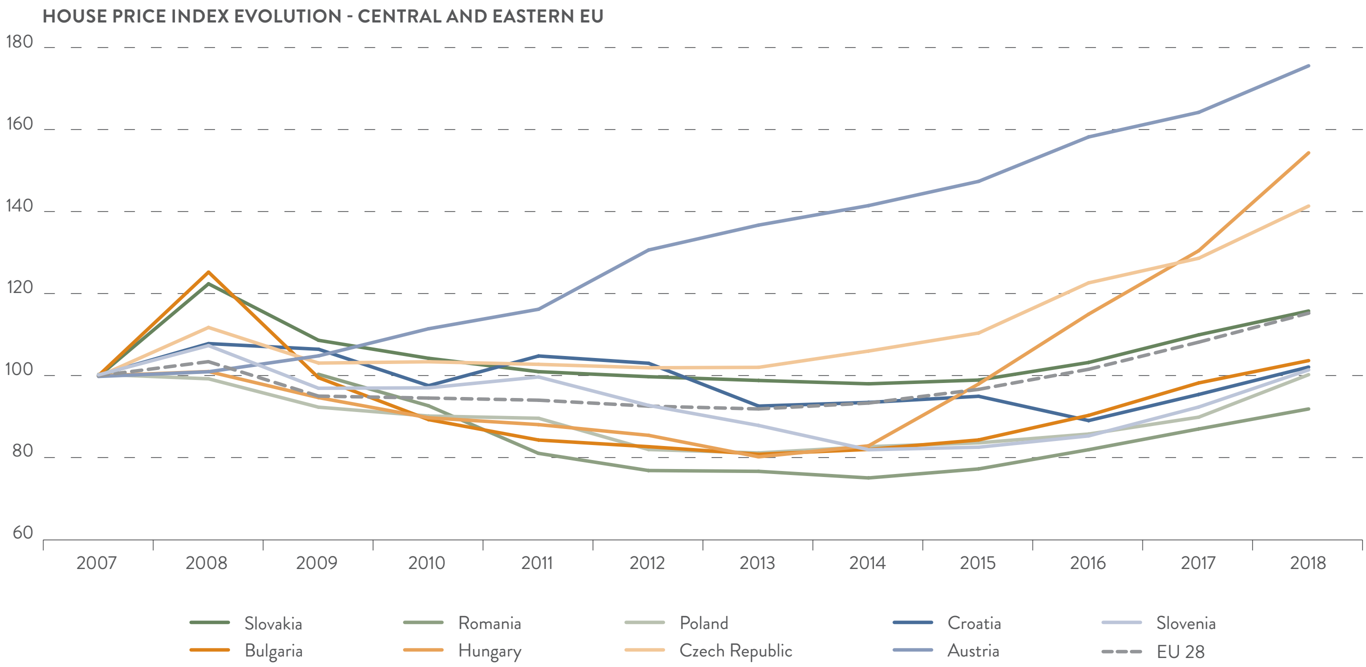


Source: European Mortgage Federation

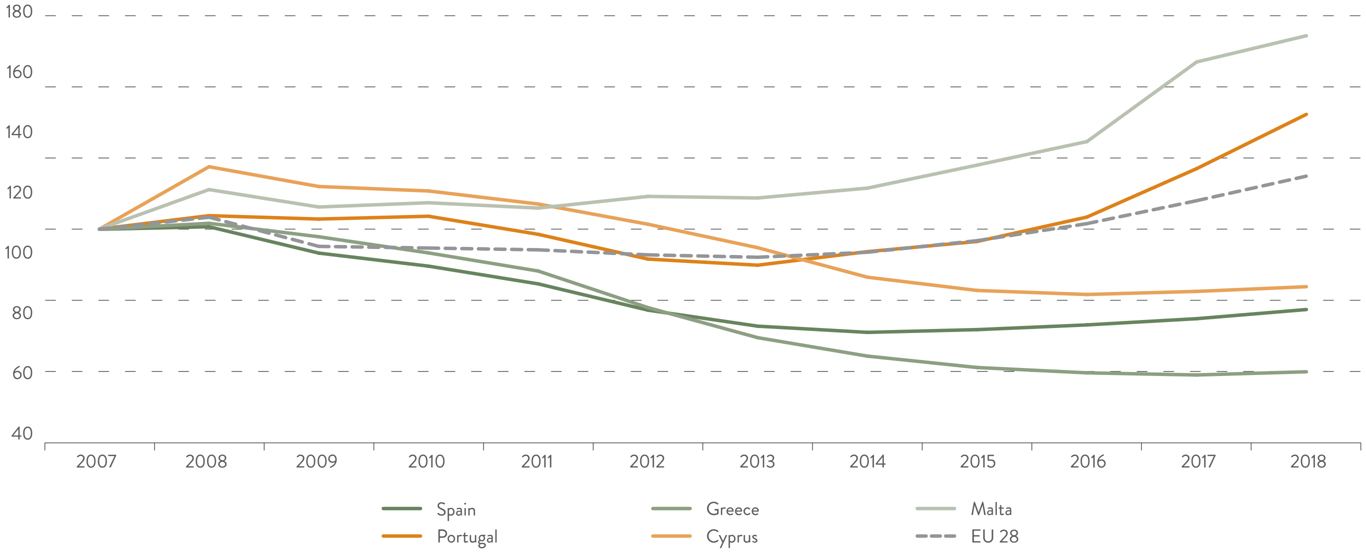
In order to better clarify possible cross-border trends in the European macro-regions, the house price indices have been clustered geographically. When analysing the six founding Member States of the EU the evolution of house prices has been notably different with prices in Luxembourg, Germany and Belgium following an increasing and steady path since 2007, whereas in Italy, France and the Netherlands prices decreased between 2010 and 2014, from which the former still has to recover. In the Central and Eastern European countries, the evolution of house prices was more homogeneous with just one outlier, Austria, where prices have grown steadily in the past years. Also, Hungary and Czech Republic recorded price increases above the majority of the countries of the group, while the remaining countries, after recovering from the trough of 2013-2014, reached roughly pre-crisis levels. Moving to the South, prices in Malta grew the most followed by Portugal. In Greece house prices are finally recovering for the first time since the crisis, but the average price index is still over 40% below that of 2007. In Scandinavia, Sweden has a higher price level than its counterparts, but it in 2018 house prices did not further increase after years of buoyant growth. The Baltics all followed a similar path, however, price levels in Latvia lagged slightly behind. Finally, the UK and Ireland, after a correction period in both which was longer and more severe in the latter, are on an ongoing house price expansionary path.

CHART 5 | HOUSE PRICE INDEX EVOLUTION (2007=100)

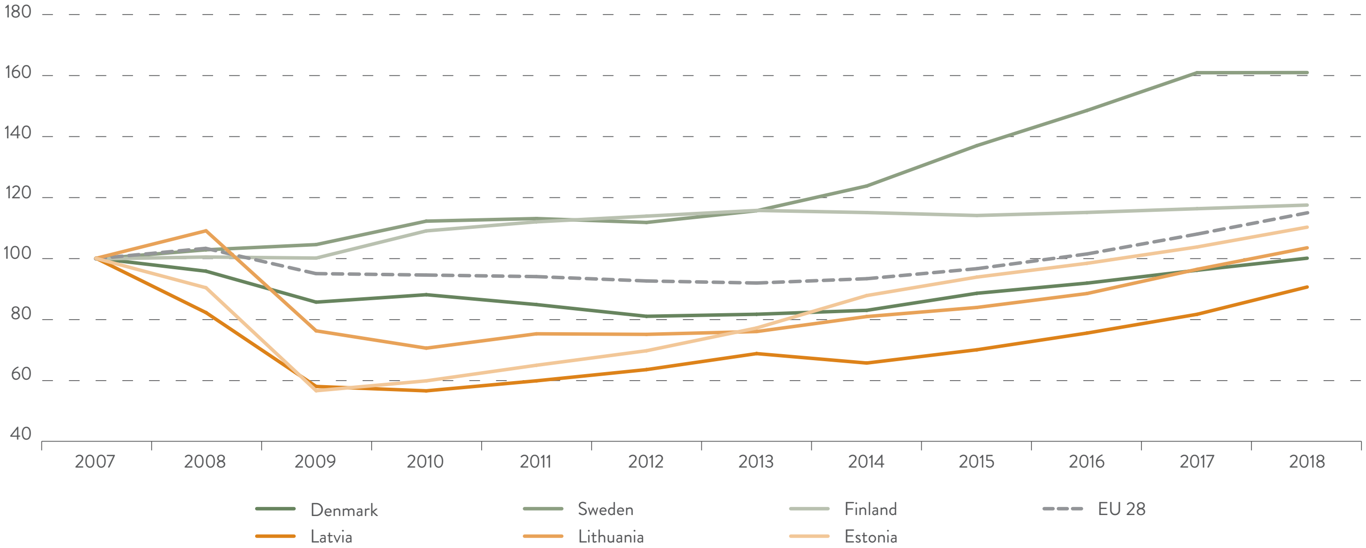




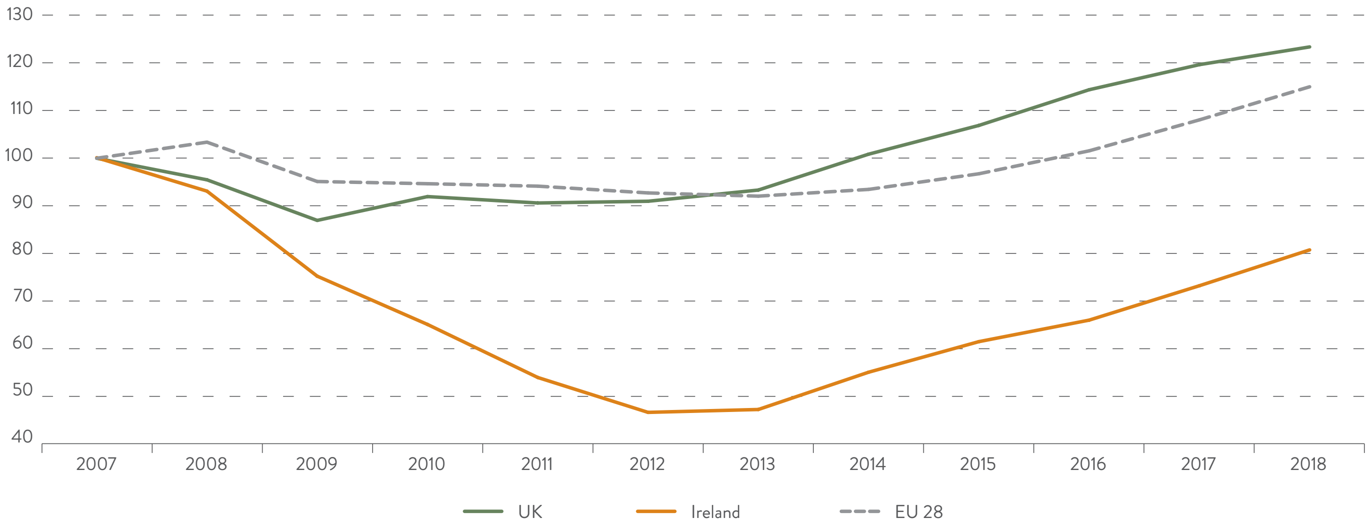
HOUSE PRICE INDEX EVOLUTION - SOUTHERN EUROPE



HOUSE PRICE INDEX EVOLUTION - SCANDINAVIA/BALTICS



HOUSE PRICE INDEX EVOLUTION - UK AND IRELAND



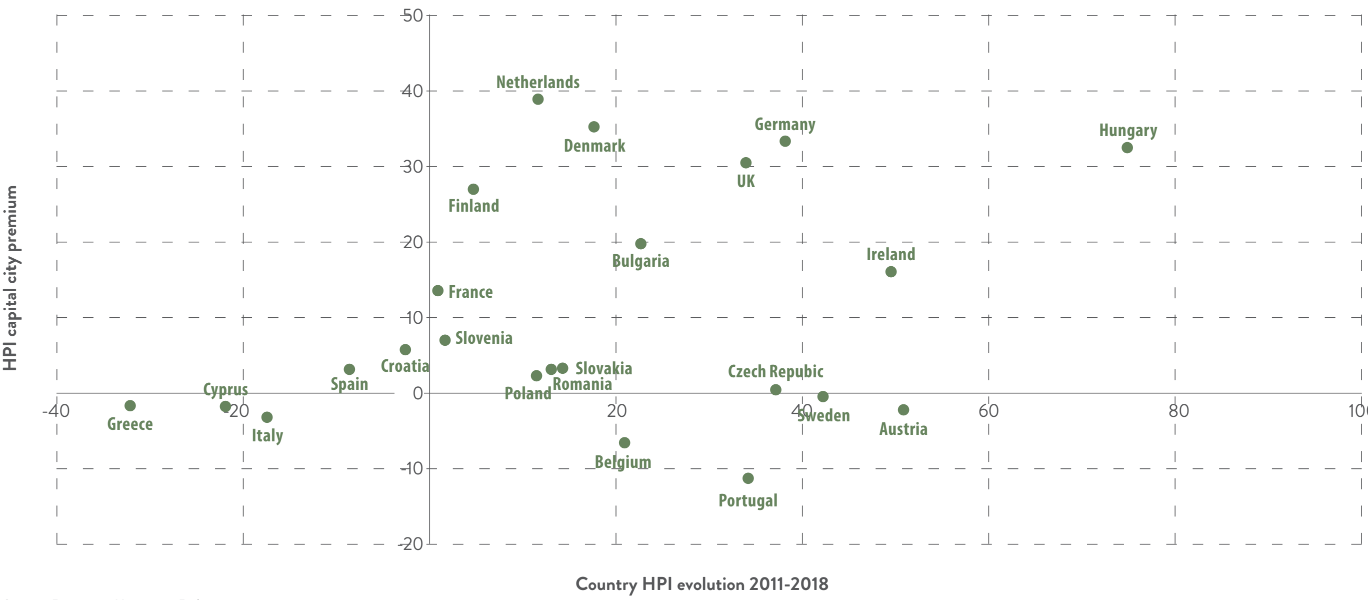
Source: European Mortgage Federation

HOUSE PRICES IN THE CITIES

House prices in capital cities showed a different pattern compared to the house prices in the respective countries and appeared to be correlated to an extent with demographic change

Cities, and capital cities specifically, recorded a different house price development with respect to their respective countries, demonstrating that a country represents the average of its different realities rather than an entity which can be described with just one datapoint. When considering capital cities in aggregate terms we can determine that on average house prices grew by 10 pps more than the aggregate country data. The following Chart 6 visualises the different patterns of the capital city house price index with respect to the overall national house price evolution. On the x-axis the HPI dynamics of the overall country is shown, while on the y-axis indicates the 'premium', i.e. by how much more the capital city increased with respect to the country. As can be seen in the chart, several different situations arose in Europe in 2018 with respect to 2011, our reference year which marks the trough in aggregate house prices in Europe before the ongoing recovery began. In countries such as Hungary, Germany, the UK and Ireland, in addition to significant country-wide house price growth, their respective capitals grew substantially. House prices in Budapest more than doubled in the reference period while in Germany[2] the most important cities on average in aggregate terms recorded a house price increase of over 71%. In the Netherlands, Denmark, Finland and France, the house price indices in capital cities mostly increased, while the respective countries overall displayed much more contained growth. At the other end of the scale, there are countries such as Belgium, Portugal and to a lesser extent also Austria, where the country rather than the capital experienced steeper house price dynamics. In Greece, Cyprus and Italy both aggregate house prices and even more the house prices in the respective capital cities have decreased over the last 7 years. For Athens and Nicosia, the decreasing trend reversed in 2017 and 2016 respectively, while in the eternal city the deceleration of the decline which started in 2015 is not yet observable.

CHART 6 | PREMIUM CAPITAL HPI WITH RESPECT TO THE HOUSE PRICE INDEX OF THE COUNTRY



Source: European Mortgage Federation

DO HOUSE PRICES FOLLOW POPULATION TRENDS IN CITIES?

In the housing market, the fundamental determinant is demographic trends, also for general prosperity. In this section we explore the correlation between house price growth in capital cities and their respective demographic changes.

As can be seen in Chart 7 two important pieces of information can be derived. Firstly over the last seven years nearly all capital cities saw, to various degrees, an increase in their population, and secondly, the nature of this increase varies significantly. In capital cities such as Nicosia, Brussels, Dublin and London natural change represented the main driver of population evolution, while in Vienna, Copenhagen, Berlin and Rome the net migration flux (both domestic and abroad) was the main driver. It is important to make this differentiation, as the drivers of population change also provide indications as to which type of dwellings would be more in demand in the various cities. It is also interesting to notice how in cities like Paris or Budapest, in the former the natural population increase was offset by emigration, while for the latter immigration offset natural change of the population. Let us also quickly draw your attention to Madrid, which does not appear to have been affected by migration flows during this period. In fact, during the period of analysis, the city experienced significant emigration at the beginning, followed a couple of years later by equivalent immigration, thus resulting in overall zero change for the migration contribution.

In chart 8 the x-axis represents the house price index evolution from 2011 to 2018 in the capital cities available in our sample, while the y-axis shows average relative demographic change over the same period of time. This change is influenced by two key drivers, natural change, i.e. the difference between births and deaths, and net migration change. With these drivers in mind this chart indicates that there is indeed a positive correlation between house price evolution and population change in European capital cities. At the one end of the spectrum we find Budapest where house prices more than doubled with a relatively small average population change, while in Copenhagen and in Stockholm, the two cities in

[2] The German city HPI index is an aggregate value from the seven largest German cities: Berlin, Hamburg, Munich, Cologne, Frankfurt a.M., Stuttgart and Düsseldorf.

our sample with the largest average relative population increase, house prices increased significantly between 40% and 60%, but less than half the amount of the Hungarian capital. At the other end of the spectrum, in a city like Athens, population decrease was coupled with significant losses in house values. In the correlation there are also some outliers such as Rome, Madrid and Nicosia. These Southern European capitals saw a house price contraction notwithstanding the net positive average influx of people. The opposite trend is seen in Paris, where house prices continued to increase despite a small population contraction.

CHART 7 | CONTRIBUTION BREAKDOWN TO AVERAGE POPULATION CHANGE 2011-2018

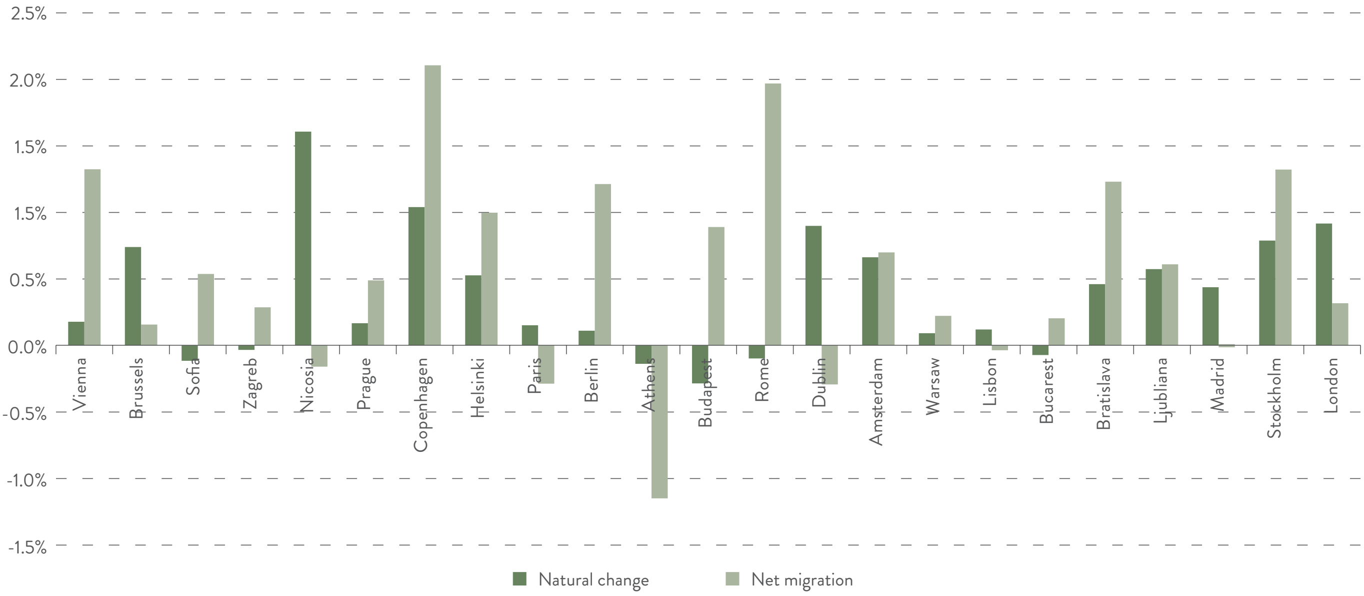
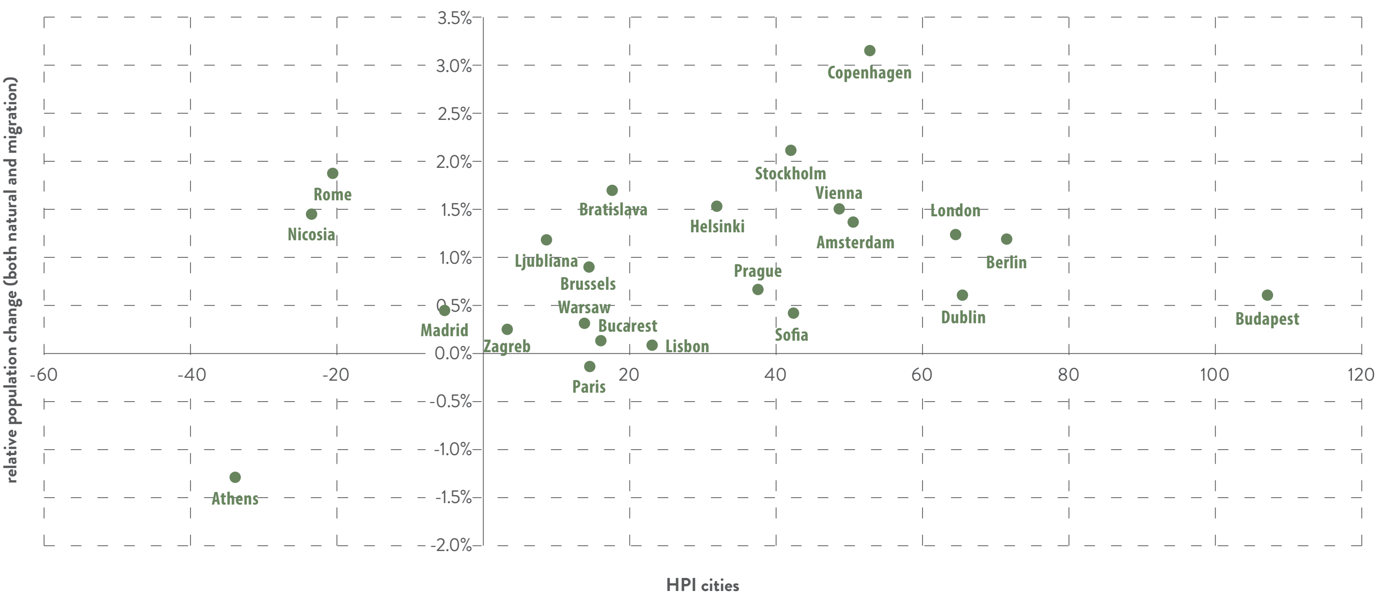


CHART 8 | CAPITAL HOUSE PRICE INDICES COMPARED TO DEMOGRAPHIC EVOLUTION 2011-2018



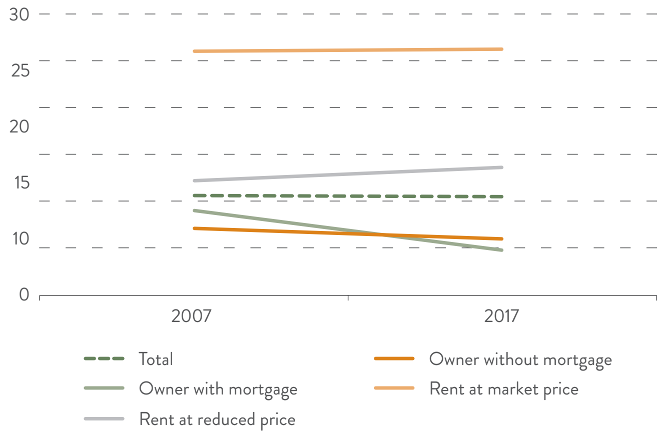
Source: author's calculation, European Mortgage Federation

AFFORDABILITY TO BUY A HOUSE

Housing affordability appears to show different patterns according to the tenure status of the occupier and housing affordability presents a different evolution when comparing countries and their respective capital cities

As may be assumed when considering the subject of affordability and as presented in last year's Hypostat, 38% of people at risk of poverty (i.e. those with an income below 60% of the median income of a given country) are affected by housing overburden. Less obvious perhaps is the fact that there are significant differences in relation to housing overburden when considering the various tenure statuses which also evolve differently over the years. In chart 9 it is clear that in 2017 (the last available datapoint) homeowners with a mortgage were least affected by housing cost overburden with just 4.7% of mortgage holders. Moreover and considering the evolution since the crisis, the housing overburden for this category decreased the most, with fewer overburdened households than those without a mortgage. On the other hand, on the rental market, over 1 in 4 tenants are struggling to make ends meet, and even 1 out of 7 those benefitting from reduced rent are still facing challenges in 2017. This latter evolution may be due to the fact that affordable housing is facing serious shortages in Europe with public authorities facing difficulties in providing enough dwellings for an increasing number of people unable to find appropriate accommodation. These figures suggest that a mortgage can play a role in minimising the overburden risk, possibly as a result of the extensive affordability security checks conducted by lending institutions before origination. This can also support borrower awareness regarding capacity limits and help to reduce the risk of housing cost overburden.

CHART 9 | HOUSING OVERBURDEN EVOLUTION AMONG DIFFERENT TENURE STATUS, IN PERCENT



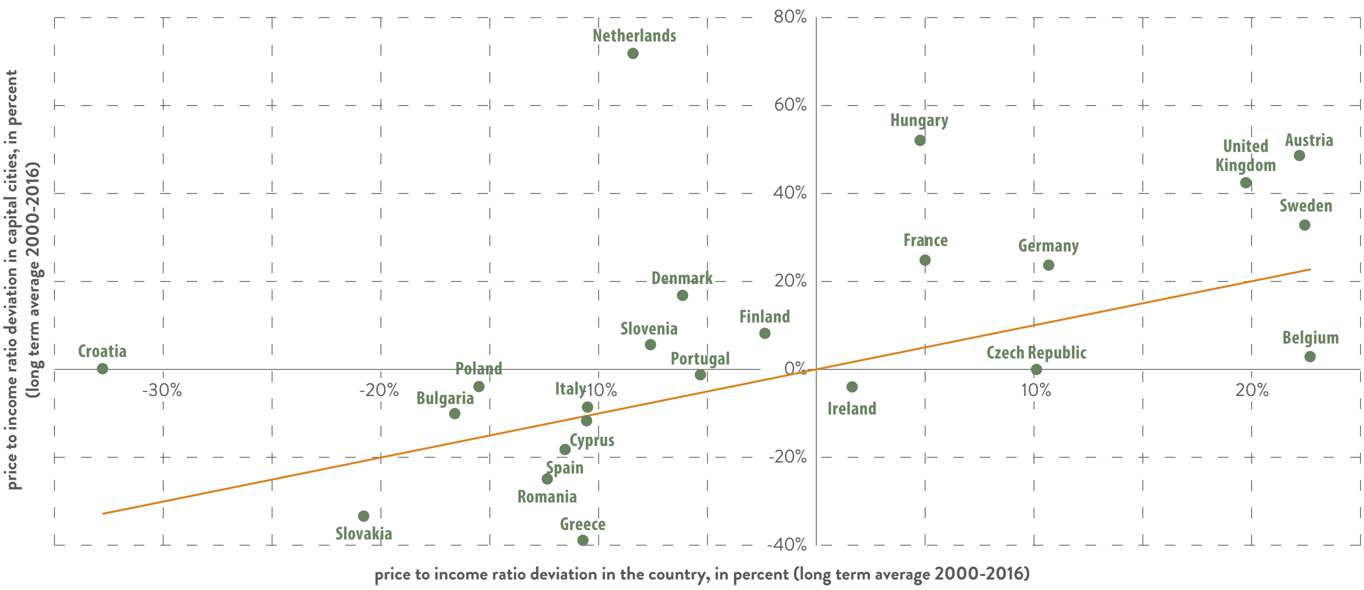
Source: Eurostat

As indicated previously, cities recorded steeper house price developments compared to their respective countries. However, it is also a known fact that on average income levels in the cities are higher than the national average. As an affordability indicator, we have constructed a price to income ratio taking the House Price Index of the capital cities and of the countries with their respective per capita disposable income. Considering that we are dividing an index by a EUR per capita value, the resulting ratio does not have very much meaning. However, it becomes meaningful when considering the deviation of this ratio in a given year from its long-term average, which can be considered as a state of long-term equilibrium. When the deviation is positive, this means that for that given year the HPI grew by more than the respective disposable per capita income with respect to the long-term average, thus indicating a deterioration in the price to income ratio. We have therefore constructed this average by taking into account, when possible, the data ranging from 2000 to 2016 and analysed the deviation of the ratio in year 2016 from this average. Unfortunately the most recent data available for disposable income in cities was 2016, therefore for this analysis we could not make use of our more recent datapoints.

As a result we see in Chart 10 the comparison of price to income ratio in the capital and the respective country and its deviation from the long term average. The 45 degree bisector helps the reader to understand in which countries the capital or the rest of the country is more affordable. If the dot lies above the line, the capital city is less affordable than the country. Moreover, wherever the dot is in negative territory for either the x or y values this means that the affordability for that given country or city has improved, either as a result of a more substantial increase of the disposable income with respect to the house price index or, what is more common, due to the contraction of the latter.

The results show how in countries like France, Germany, Hungary, Austria, Sweden and the UK housing was less affordable both in the overall country but even more in the respective capitals in 2016. In Sweden together with Austria and Belgium the price to income deterioration was the starkest with around 25% deviation from the long-term ratio for the country, while affordability in the cities varied greatly. In Belgium and the Czech Republic affordability suffered the most at country level, while the capital cities roughly remained around their respective long-term equilibria. On the contrary, especially in Amsterdam and to a lesser extent Copenhagen, Helsinki and also in Ljubljana, housing affordability deteriorated whilst in the respective countries affordability slightly improved. In Poland, Italy, Bulgaria and Portugal affordability improved more for the country than for the capital. It has to

CHART 10 | AFFORDABILITY EVOLUTION COMPARISON BETWEEN CAPITAL AND RESPECTIVE COUNTRY, 2016



Source: author's calculation, European Mortgage Federation be added that while in Italy the deterioration was mostly explained by a correction of house prices both in the country and in Rome, in countries like Bulgaria or Poland it is explained by the increase in disposable income which outpaced, especially in Poland, a sustained house price increase. Finally in countries such as Spain, Romania, Slovakia and Greece, the price to income ratio improved especially in the capitals in 2016. In Spain and Greece this was principally due to the subdued House Price index with respect to the long-term average, while in Romania and Slovakia this resulted more from the increase in disposable income.

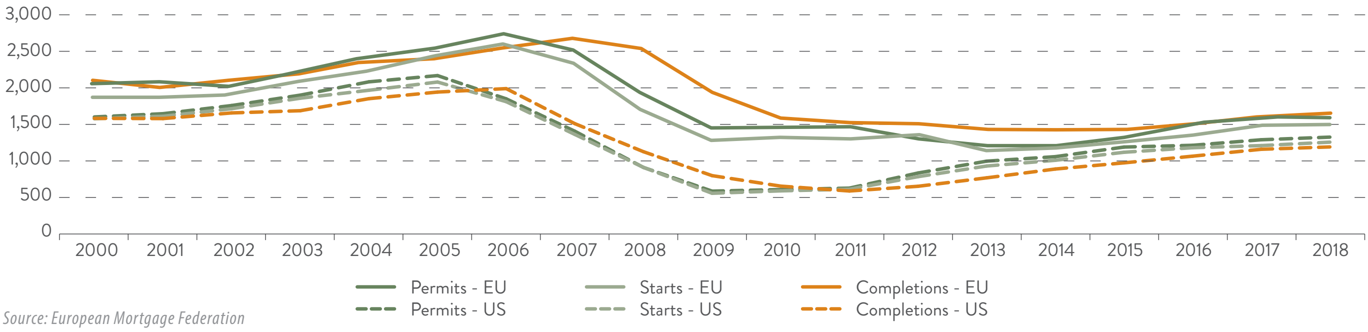
HOUSING SUPPLY DEVELOPMENTS

In 2018 construction investment grew for the fifth consecutive year expanding by 3.2% with respect to 2017, however compared to GDP the share remains below the pre-crisis level.

A similar trend is also observed when focusing on investment for dwellings which recorded 3.2% growth in 2018 and reached 5% of GDP, the highest value since 2011, but still one percentage point below the 2007 peak and below the levels of the early 2000s. Ongoing relatively low mortgage interest rates, continued demand for real estate and a growing awareness of the need to provide more affordable housing solutions especially in densely populated areas and cities have created a favourable environment for future construction investments. These factors, however, are counterbalanced by capacity constraints in construction related to labour shortages and to the scarcity of buildable land due to strict zoning regulations and a lack of incentives for landowners to start a housing development. All of these factors dampen a potentially faster expansion. At an aggregate level supply in Europe continued to expand with the figures for building permits and starts increasing 16 pps from the trough in 2013. For building completions, the lowest point in Europe was in 2014 and nearly 10 pps more dwellings were completed in 2018. In any case the pre-crisis levels are still around 30 pps away as can be seen in Chart 11.

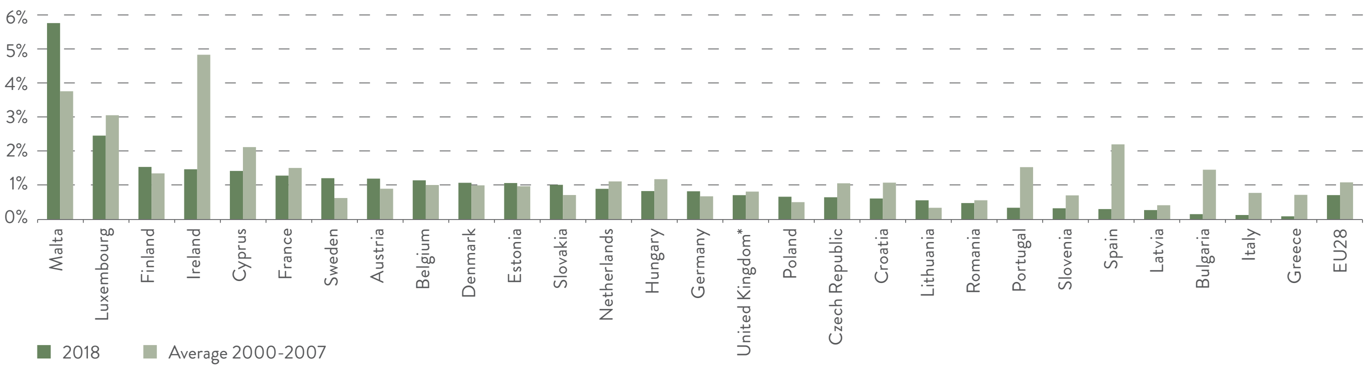
Despite general housing supply having continued to pick up pace in the last years, the need for additional housing remains acute in many countries. Moreover, the amount of building permits issued in 2018 covers in aggregate terms 0.71% of the total EU dwelling stock, a figure which is 34% lower than the average for 2000-2007 as can be seen in Chart 12. Also in this case Europe presents quite a heterogeneous picture with on the one hand Sweden nearly doubling the granted permits in 2018 with respect to the reference period, while on the other hand countries like Italy, Greece, Spain and Portugal granted less than 10% of the permits of the beginning of the millennium in 2018. Central European countries such as Austria, Belgium, Germany recorded building permits figures in 2018 which are 10%-20% higher than at the beginning of the 2000s, while in countries such as France, the UK and the Netherlands there was a double- digit contraction. Finally, in 2018, Spain, Italy, Greece and Bulgaria granted less than 20% of the permits granted in the period before the crisis, although over the last years they all displayed variable degrees of recovery from their respective troughs.

CHART 11 | EVOLUTION OF CONSTRUCTION INDICATORS IN THE EU[3] AND THE US, IN ,000 RESIDENTIAL UNITS



Source: European Mortgage Federation

CHART 12 | BUILDING PERMITS AS A PERCENTAGE OF EXISTING DWELLING STOCK



* For the United Kingdom housing starts was used.

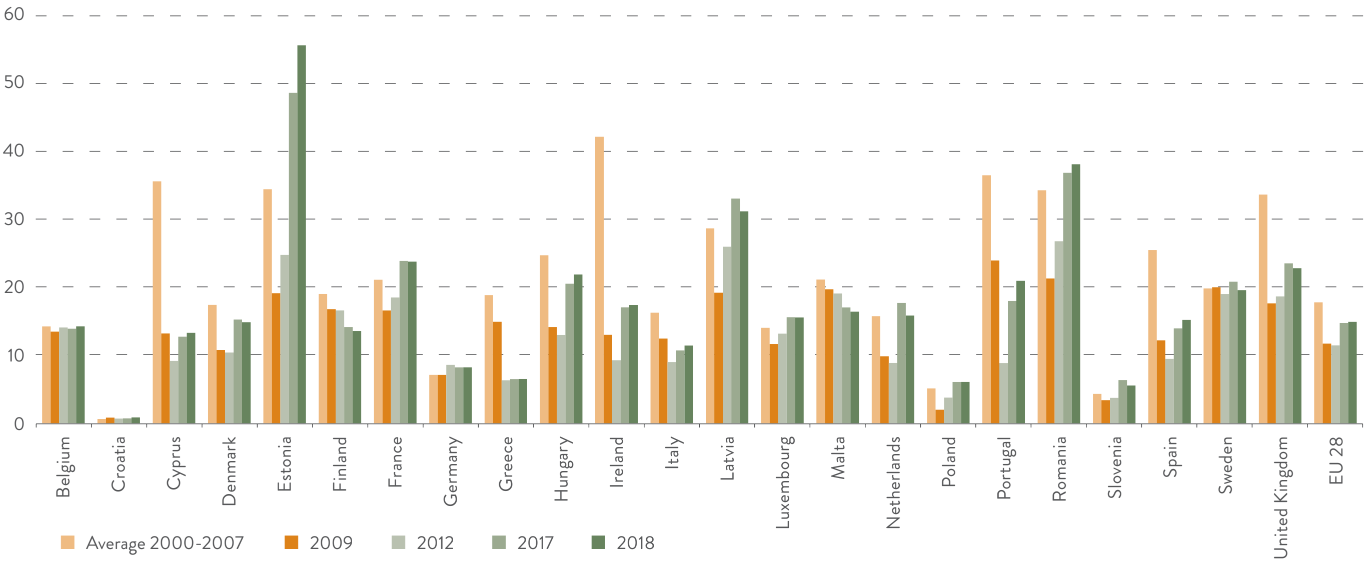
Source: European Mortgage Federation

[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), LV (2000-2002), RO (2000-2004)
- 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, 2012-2018), RO (2000-2001, 2009-2018)
- Housing Completions: BE, MT, AT(2018), BG (2000-2003), HR (2000-2001, 2018), CY (2018), IT (2017- 2018), LU (2017-2018), UK (2018).

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.

With regard to residential property transactions, which focus both on new and also existing property, in aggregate terms in 2018 there was a slight expansion with respect to the previous year of 1.3%. Notably the Netherlands, after years of increase in transaction figures, saw a contraction in 2018 of nearly 10%. Sweden and the UK followed the same path as the Netherlands but with a less severe contraction. When taking into account the amount of transactions per 1000 persons in aggregate terms 15 transactions per 1000 adult Europeans[4] took place in 2018 compared to nearly 18 transactions on average between 2000 and 2007. At a country level the majority of jurisdictions either bounced back from the severe contractions in the aftermath of the crisis or maintained a stable level of transactions, as was the case in Belgium, Croatia, Germany. Finland and Malta are the only countries which present an ongoing decrease since the early 2000s.

CHART 13 | NUMBER OF TRANSACTION, EVERY 1,000 INHABITANTS OVER 18 YEARS



Source: European Mortgage Federation

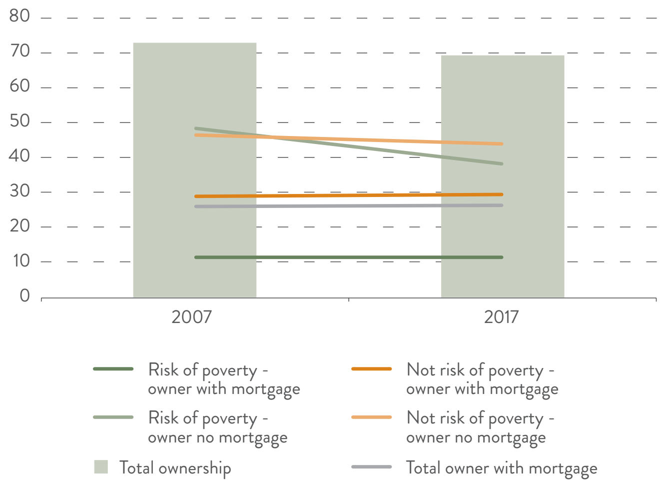
MORTGAGE MARKET

SETTING THE SCENE – HOMEOWNERSHIP, MORTGAGE INDEBTEDNESS

Mortgage holders in 2017 appear to have increased with respect to 2007. On average mortgage indebtedness per capita has increased, but a slight ongoing deleveraging with respect to GDP continues. The EU mortgage market overall increased but remains relatively concentrated in a handful of countries. Gross lending also expanded pointing to buoyant markets especially in smaller jurisdictions.

In Europe in 2017, the last year in which there is data available for all EU Member States, on average 69% of the population lived in their own dwelling, a figure which in aggregate terms has not changed significantly since 2007 when it was around 71%. Over this period of time however, at Member State level, developments point in different directions. On the one hand, in countries such as Ireland and the UK the homeownership share shrank by over 8 pps; on the other hand in Poland the share of homeownership increased by over 21pps to 84%. It has also to be noted that over the last decade the share of homeowners with a mortgage increased by 1.1 pps to 26.7%, with the share of mortgage holders among the population at risk of poverty remaining stable at 11.4% and the more affluent population increasing its share to nearly 30%. It also should to be noted that in 2017 the aggregate homeownership share of the population at risk of poverty dropped below 50%, while for the rest of the population the share is around 73%, as can be seen in chart 14.

CHART 14 | HOMEOWNERSHIP EVOLUTION IN EU 28, IN PERCENT



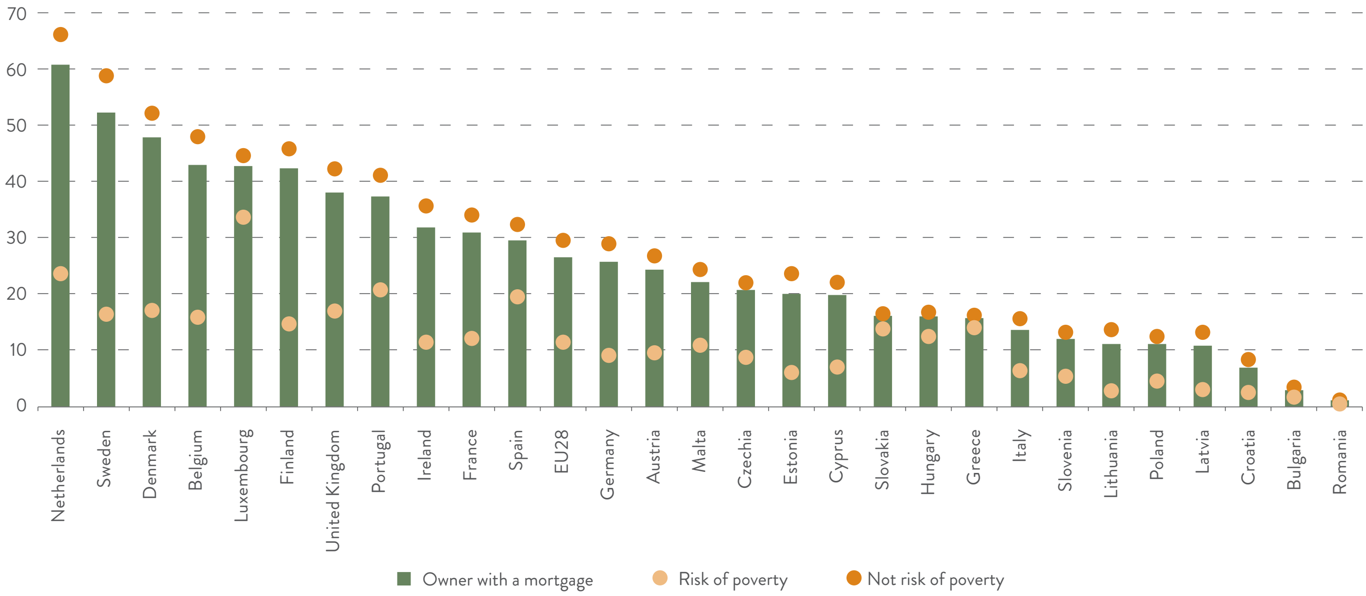
Source: Eurostat

The patterns of homeownership among countries and income classes also present significant differences which stem from social and cultural tendencies, as well as from different possibilities to access credit. Only in the Netherlands and Sweden does more than half of the population own a dwelling with a mortgage and there is a significant difference in the share of mortgage holders

[4] The aggregate value is based on the available figures in our database.

according to their income status. There are relatively minor differences in homeownership status between the income classes in the Iberian Peninsula, Hungary, Luxembourg, Slovakia and Greece. The most significant differences are registered in the Baltics, Romania, Croatia and Sweden where on average the share of mortgage holders at risk of poverty is four times smaller than the share of the mortgage holders of the rest of the population.

CHART 15 | HOMEOWNERSHIP RATE WITH A MORTGAGE WITH BREAKDOWN ACCORDING TO INCOME STATUS IN 2017, PERCENT

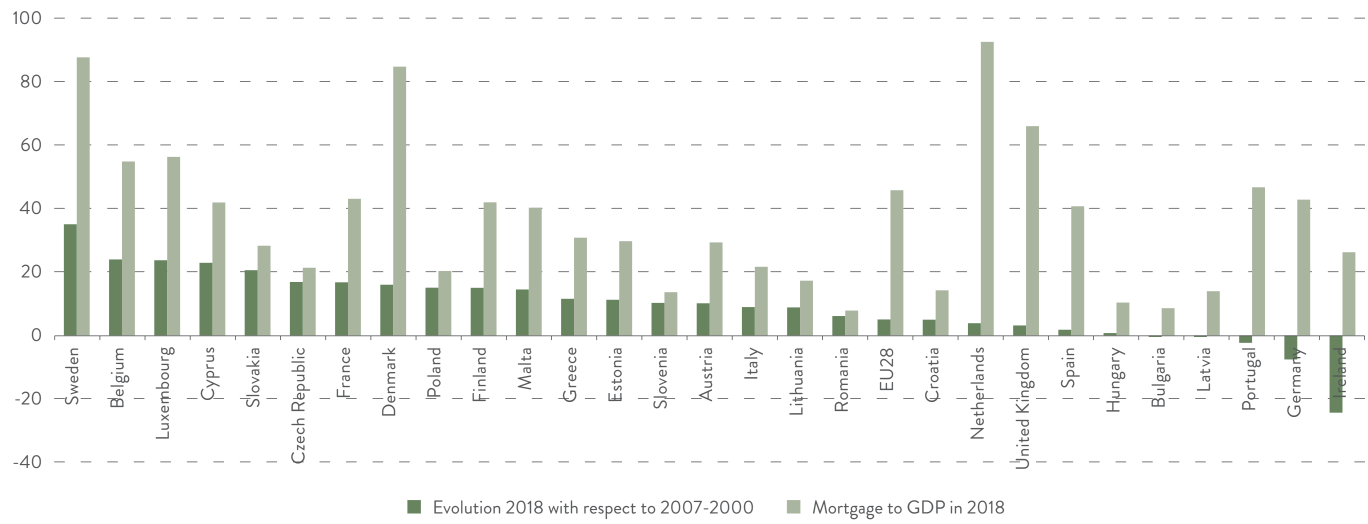


Source: Eurostat

On average mortgage indebtedness in Europe increased in 2018 by 2.7% with respect to the previous year, thus every European adult holds around EUR 17,404 of mortgage debt. When taking a closer look at the various national realities there are stark differences, with countries like Luxembourg, Denmark, Netherlands and Sweden, where the average is over EUR 50,000, while especially in Eastern and Southern European countries and in the Baltics, on average the mortgage exposure per adult is around EUR 10,000 or even less. In Romania or Bulgaria each adult holds on average less than EUR 1,000 of mortgage debt.

A similar picture is observed in relation to outstanding mortgages to GDP throughout the continent. In 2018 outstanding mortgages accounted for 45.7% of continental GDP – a little less than the combined GDP figures of Germany, France and Italy – pointing to a 0.1 pps decrease with respect to 2017 but a 5 pps increase with respect to the pre-crisis average. Taking into consideration Chart 16 in countries such as Denmark, Netherlands and Sweden the mortgage market constitutes at least 80% of the respective GDP, whilst in Belgium, Luxembourg and the UK the figure exceeds 50%. At the other end of the spectrum, in Bulgaria and Romania, the mortgage market accounts for less than 10% of GDP. When comparing the mortgage intensity of 2018 with the one before the crisis we notice an overall 5pps increase with peaks of 35 pps increase in Sweden and a deleveraging of 24pps in Ireland.

CHART 16 | MORTGAGE MARKET INTENSITY COMPARISON BETWEEN 2018 AND THE PRE-CRISIS PERIOD OF 2000-2007, IN PERCENT

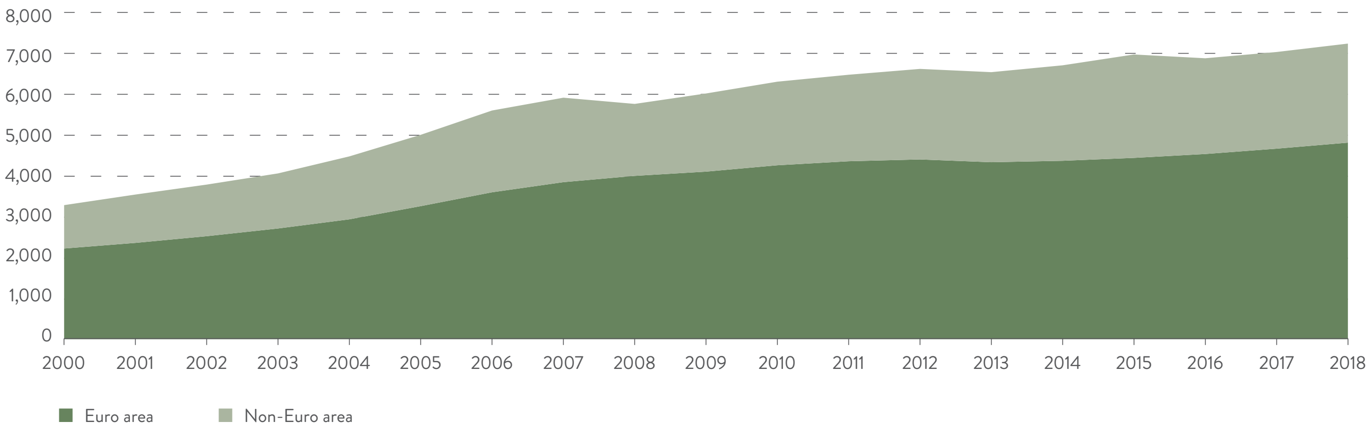


Source: European Mortgage Federation

RESIDENTIAL MORTGAGE LENDING

Ongoing accommodative monetary policy, strong fundamentals and relatively high and in general increasing housing prices have supported the mortgage market growth in Europe which in aggregate terms continued to expand in 2018 reaching EUR 7.25 tn, marking a 2.9% increase with respect to the previous year. The Euro area Member States grew in aggregate terms by 3.15%, continuing the slight acceleration started in 2014 and marking the highest year-on-year growth rates since 2011. Also the non-Euro area, after the contraction in 2016 due to the depreciation of the GBP and the 1% growth in 2017, showed some momentum with an increase of 2.5%, mainly due to the resumed expansion in the UK and the continued sustained expansions in countries such as the Czech Republic and Poland where outstanding mortgage market figures on average have increased by 10% and 5% respectively since 2015. In any case the share of the Euro area mortgage market in the EU in 2018 was two thirds, which resembles the long term average of the last 20 years.

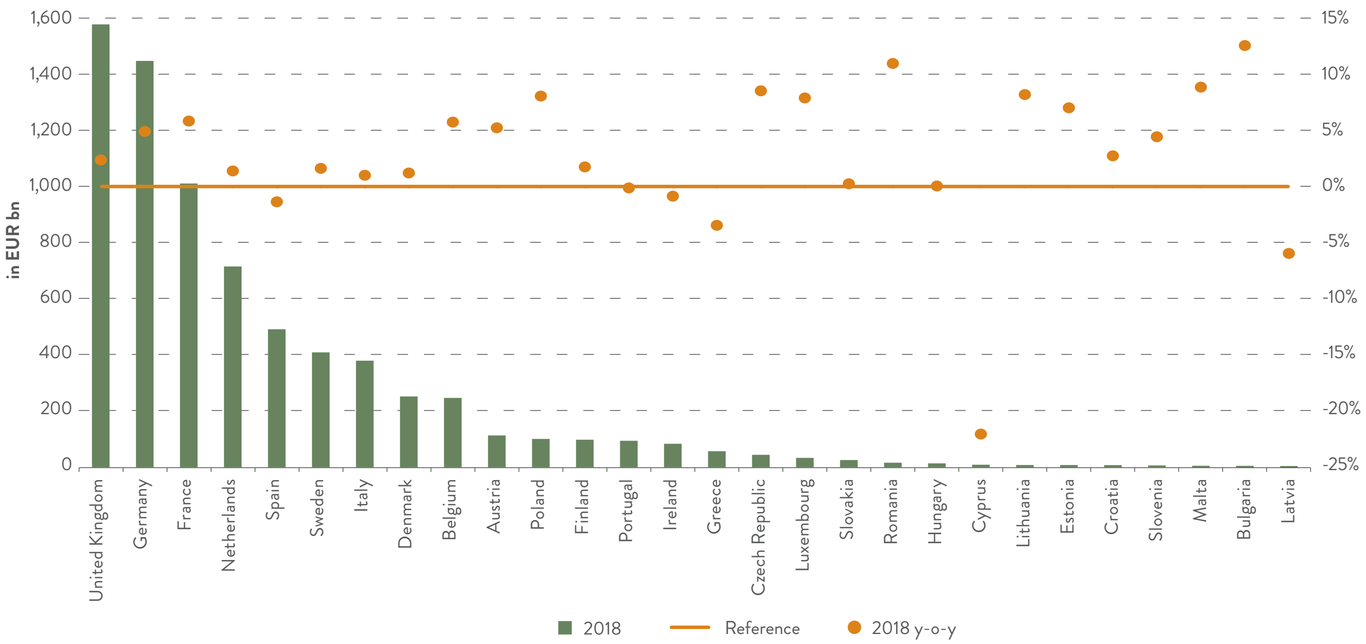
CHART 17 | OUTSTANDING RESIDENTIAL LOANS IN EU28, EUR BN



Source: European Mortgage Federation

The countries with the highest market growth in outstanding terms in 2018 were those countries with a relatively small mortgage base which are benefitting from a catch-up effect. Bulgaria and Romania are the only jurisdictions posting year-on-year growth of more than 10% followed by other countries from Central and Eastern Europe such as Czech Republic, Poland and Lithuania. Among the large EU Member States France saw its mortgage market increase by over 5.7% and thus joined Germany and the UK in the club of countries with a mortgage market of over EUR 1 trn. At the other end of the spectrum, Cyprus witnessed the largest contraction of 22% of their mortgage market mainly due to the resolution of the Cyprus Cooperative Bank with the subsequent sale of its mortgage loans. Slight contractions were also seen in Greece, Spain and Portugal, but in all three jurisdictions the turning point is perceived to be coming based on growing domestic and foreign interest in the purchase of real estate.

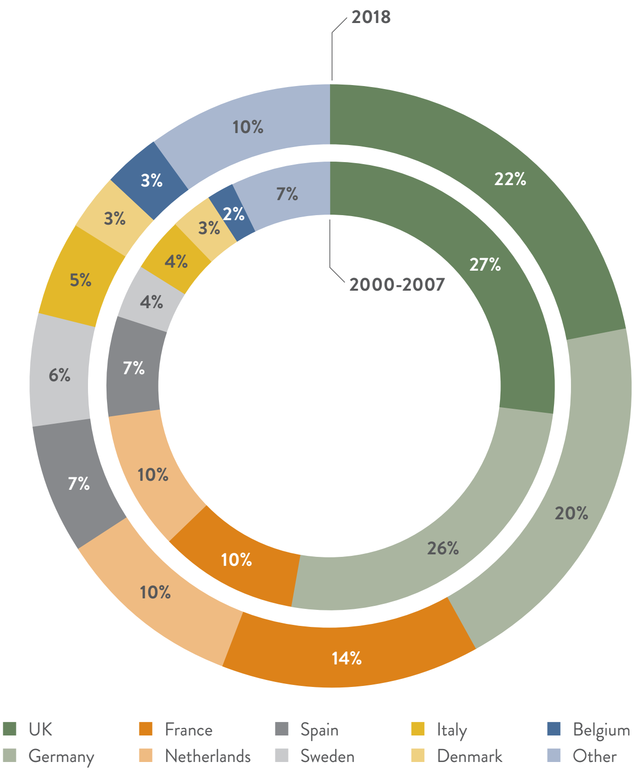
CHART 18 | OUTSTANDING MORTGAGE MARKET AND GROWTH RATES IN 2018



Source: European Mortgage Federation

As far as the breakdown is concerned, the European mortgage market is principally split among a handful of countries. As can be seen in chart 19 the five largest jurisdictions account for around 72% of the total market, a figure which has remained constant for the last couple of years. This being said, compared with the average of the pre-crisis years, the mortgage market is now less concentrated.

CHART 19 | MORTGAGE MARKET BREAKDOWN 2018 AND 2000-2007

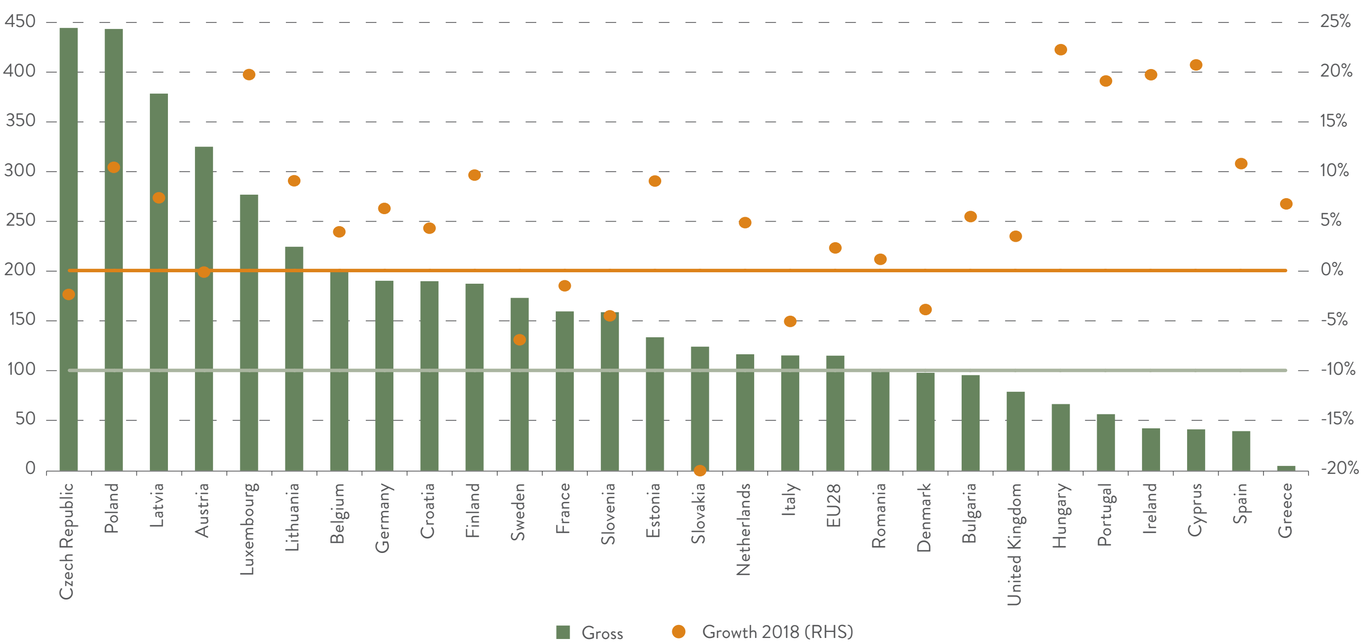


Source: European Mortgage Federation

In aggregate terms the EU28 issued new mortgages in 2018 to a value of around EUR 1.17 tn, which represented an increase of around 2.34% with respect to the previous year. This value is still 19% short of the peak registered in 2006, but with respect to the average issuance from the years between 2000 and 2007 the aggregate issuance in 2018 was over 15% higher. As always, there are significant differences among jurisdictions reflecting the different stages of the mortgage market cycle. Looking at chart 20 it is clear that in 2018 two thirds of the EU 28 countries – note that we do not have data for Malta – issued more loans than on average during the first 8 years of the 2000s. Especially buoyant are the figures in the Czech Republic and Poland where gross lending in 2018 was more than four times higher with respect to the beginning of the century. It has to be said that in the Czech Republic the gross issuance in 2018 contracted by over 2%, while in Poland it continued to expand by 10% with respect to 2017. Among the large countries with respect to pre-crisis levels Germany nearly doubled its figures of new lending, while in France the figure increased by almost 60%. In the Netherlands and Italy new lending increased by around 15%. The UK and Spain are both still below their respective gross lending figures of before the crisis, due to the corrections of their respective mortgage markets. A similar situation can be observed in Bulgaria, Hungary, Portugal, Ireland, Cyprus and Greece all of which nevertheless recorded significant growth rates in 2018 compared to 2017.

Throughout the continent, the various jurisdictions have attempted to influence current market dynamics with macroprudential measures tackling Loan-to-Value, Debt-to-Income, Debt-Service to Income limits or stricter amortisation requirements to service the mortgage debt in order to cool down rapidly expanding markets. Moreover, several countries have put in place incentives for families with children to buy their own home, as is the case in Germany, or to expand the affordable and social housing market segment, as is the case in Austria or Estonia. In Bulgaria the high average age of the building stock of around 30-35 years has triggered the government to grant financial support for housing renovation and also in Italy tax-brakes for housing renovation were extended in 2018. Measures have been put in place in Slovakia aimed at the reduction of loans with an LTV between 80% and 90% and the prohibition of

CHART 20 | GROSS ISSUANCE COMPARISON WITH 2000-2007 AVERAGE AND GROWTH RATE IN 2018



Source: European Mortgage Federation

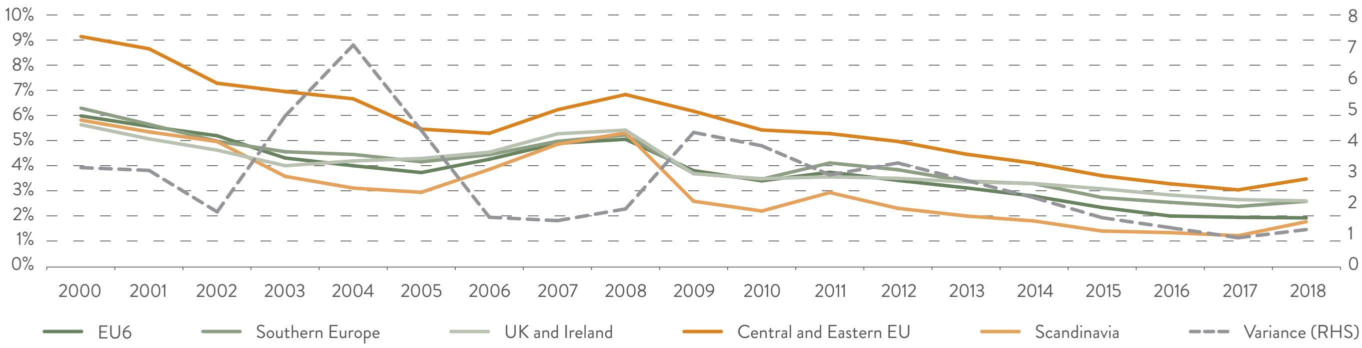
loans with an LTV higher than 90%. Action has also been taken to reduce the share of loans provided to highly leveraged borrowers which was one of the causes of a 64% contraction in new mortgage issuance in 2018.

MORTGAGE MARKET INTEREST RATES

Mortgage interest rates in aggregate terms slightly increased in 2018 reversing the decreasing trend of previous years. The amount of variable interest rates (with an initial fixation period of at most 1 year) still varies considerably among EU Member States with all mortgages in Poland with a variable rate compared to Belgium where only 6.7% of mortgages had a variable interest rate in 2018.

In 2018, the trend of falling mortgage market interest rates which had characterised the past decade reversed, with the unweighted average of interest rates reaching 2.5%, a slightly higher figure than the one recorded in 2017 and the first yearly increase of the last 10 years. In 13 countries out of 28 EU Member States, the average interest rate charged on mortgages increased with respect to the previous year. Furthermore, it appears that interest rates will continue their upward path in 2019, as the results of the first EMF-ECBC Quarterly Review of 2019 indicate that in the majority of jurisdictions interest rates are slightly higher than in 2018. Of course, despite the overall increase in interest rates there is still heterogeneity on the continent. As can be seen in Chart 21 the evolution of interest rates roughly follows a similar pattern in Europe but starting at different levels. Indeed, the Scandinavian countries continue to have lower interest rates despite the recent increase experienced in the past two years, while on average borrowers in the Central and Eastern European Countries have to pay increasingly more for their loans. At an intermediate level, the interest rate levels in Central, Eastern and Southern European remained virtually unchanged during the last year. Moreover, we can observe that the convergence in interest rates that started strongly in 2012 started to reverse 2018.

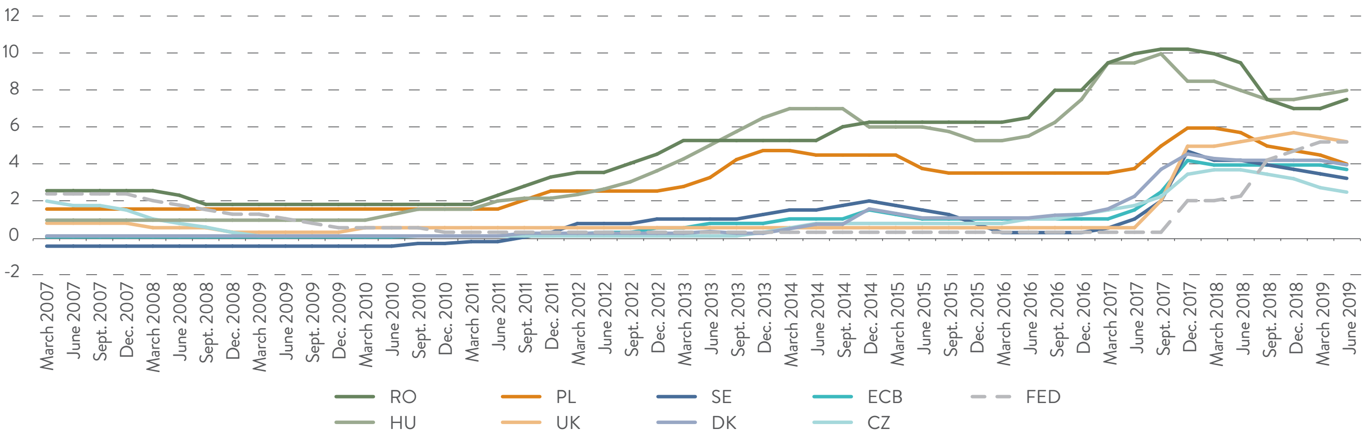
CHART 21 | MORTGAGE INTEREST RATES IN AGGREGATED EU REGIONS, IN PERCENT



Source: author's calculation, European Mortgage Federation

At the time of writing, the ECB, despite contrary expectations from the market in the last months has not changed the reference rate of 0% and after the regular Governing Council Meeting on 25 July 2019 announced that the rate will remain untouched at least until the second half of 2020. At the same meeting, the ECB also decided to continue reinvesting, in full, in the principal payments from maturing securities which were purchased under the asset purchase programme. Finally, the Governing Council also underlined the need for a highly accommodative stance of the monetary policy for a prolonged period of time, therefore, indicating that there will be no major changes in interest rates. Other Central Banks, such as those in Romania and Hungary, appear to be following the same indications approach as the ECB, since their policy rates have remained unchanged in the last quarters as can be seen in Chart 22. However, the Central Bank of the Czech Republic decided to increase their interest rates in the second quarter of 2019. Finally, in the US the reference interest rate has also further increased, and it reached 2.3% in June 2019, surpassing the level of 2008.

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



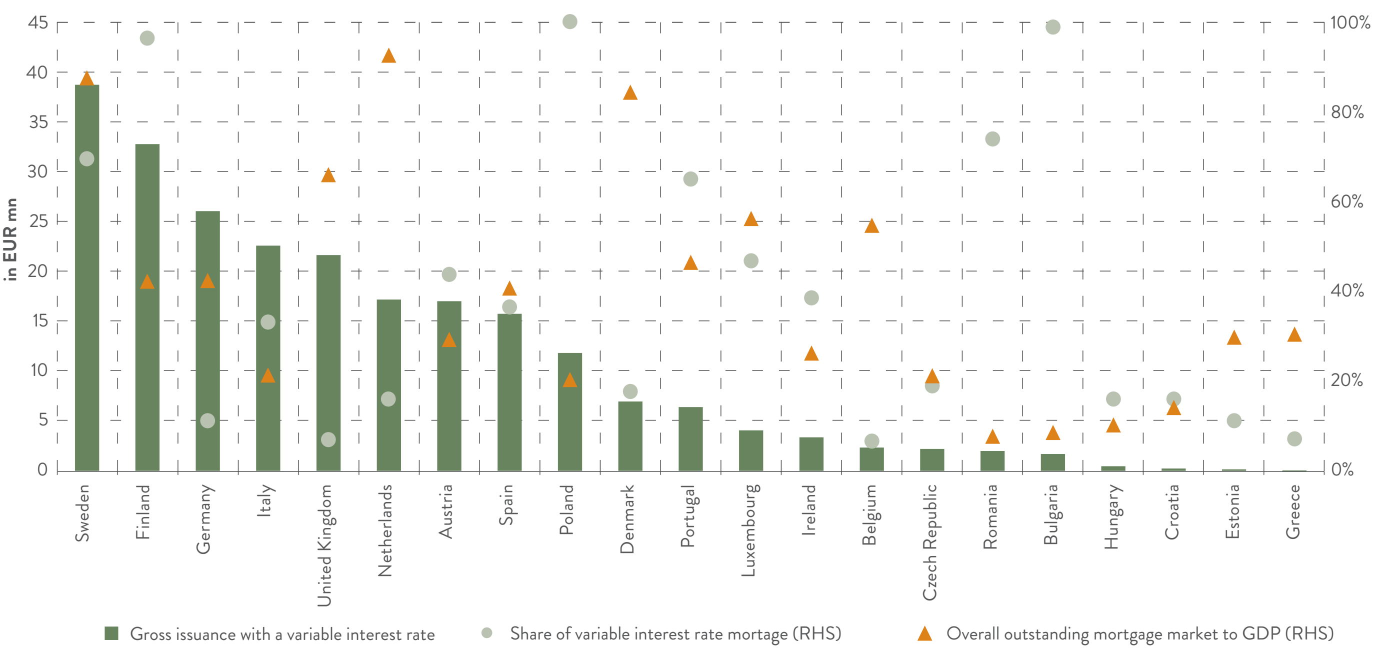
Source: Bank for International Settlements

DIFFERENT TYPES OF INTEREST RATES

Following the trend in mortgage interest rates and the small but noticeable increase of average interest rates, the general preference, with certain exceptions, appeared to be for longer initial periods with fixed mortgage rates in order to lock in a more favourable interest rate in the event that interest rates continued to rise in 2018. As can be seen in Chart 23, countries from the EU founding members in general prefer more fixed rates together with the Czech Republic, Denmark and the UK. At the other end of the spectrum, lenders in Finland and Poland almost exclusively provide variable interest rates.

In Chart 24 it is possible to better understand the volume of variable interest rate mortgages issued in 2018[5]. Taking into account only the countries depicted, which account for over 77.5% of the total outstanding mortgages in the EU 28, i.e. over EUR 5.6 tn, it is possible to conclude that, on average, almost 28% of new mortgages were issued with a variable interest rate, which marked a robust increase from the 24% issued in 2017. There are different degrees of importance both in absolute and relative terms of variable interest mortgages. Sweden, at one end of the spectrum, presents a high absolute value in variable rate mortgages with over 70% of the total new issuance in the mortgage market, which also accounts for 87% of the Swedish GDP (grey dots). At the other end of the spectrum, Belgium also has a large mortgage market, accounting for more than half of its GDP, however variable rate mortgages only accounted for around 6% of the global issuance for 2018.

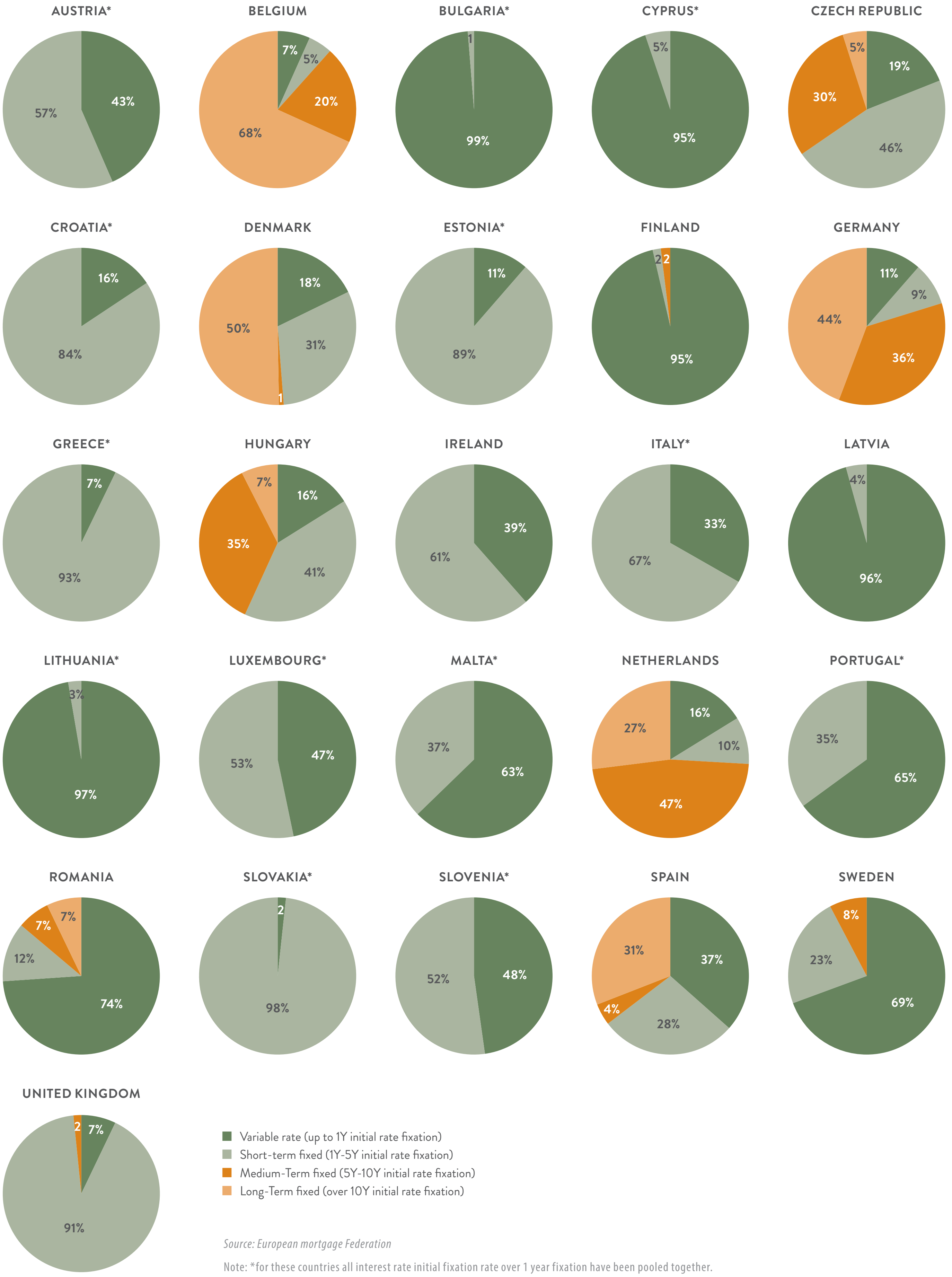
CHART 24 | SIZE OF VARIABLE SHARE INTEREST RATE MORTGAGE ISSUED IN 2018



Source: European Mortgage Federation

[5] Variable rate mortgages are considered all those mortgages with a fixation period of up to 1 year.

CHART 23 | MORTGAGE MARKET GROSS ISSUANCE BREAKDOWN BY INTEREST RATE TYPE IN 2018



Source: European mortgage Federation

Note: *for these countries all interest rate initial fixation rate over 1 year fixation have been pooled together.

Austria

By Dr. Karin Wagner[1], OeNB,
and Dr. Wolfgang Amann, Associate Professor, IIBW

IN A NUTSHELL

- → Construction investment is one of the principal contributors to the growth of gross-fixed capital formation favouring economic growth.
- → House prices in the Austrian market continued growing but at a slower pace.
- → Residential mortgage lending growth stays stable along 2018.
- → The share of variable interest rate loans continues decreasing.
- → The policies focused on the housing market have had important results on terms of affordability.

MACROECONOMIC OVERVIEW

The hardly dynamic international economy is slowing down economic growth in Austria, but the sustained domestic demand is holding up the economic performance. Compared with the two booming years of 2017 and 2018, when economic growth was 2.7% each, GDP growth will nonetheless noticeably slow down to 1.5% in 2019. For the next two years, the OeNB expects a slight improvement, with real GDP growth at 1.6% each.

The unemployment rate will fall slightly from 4.8% in 2018 to 4.7% in 2019 and then remain unchanged until 2021. HICP inflation will fall from 2.1% in 2018 to 1.7% in the current year and will remain at that level in 2020 and 2021. The general government budget balance will increase from +0.1% of GDP in 2018 to +0.5% of GDP in 2021. The debt ratio will improve from 73.8% of GDP in 2018 to 65.2% of GDP in 2019.

Private consumption has been developing strongly since 2016, supported by dynamic employment growth, rising gross wages and income tax measures. The boom experienced in 2017/2018 led to higher wage settlements for the current year compared to previous ones. The rise of wages together with the introduction of a fiscal “family bonus” will further boost private consumer demand in 2019.

In addition to private consumption, the domestic economy is being driven by growth in gross fixed capital formation. In this context, construction investment contributed significantly above the long-term average to total gross fixed capital formation growth, trend that will continue until the end of the year. This further extends the investment cycle, which is already more than average by historical standards. Overall, investment growth of 2.7% in 2019, 2.0% in 2020 and 1.7% in 2021 is expected. Furthermore, the investment ratio will be 24.3% in 2019, being the highest value since the early 2000s.

HOUSING AND MORTGAGE MARKETS

HOUSING MARKET

House prices in Austria have increased steadily and at fast pace for already one decade. In the early 2010s, price dynamics were one of the highest all over the EU, but since half a decade, several northern and eastern European countries have outperformed Austria. Dynamics are still strong but have smoothened in the first months of 2019. Both in Vienna and in the rest of Austria, the growth rates of residential property prices were lower than in previous years. Viennese real estate prices rose by 5.5% in Q1 2019, prices in the rest of the federal states rose by 4.1%, and overall Austria's growth reached 5.0% (year-on-year comparison). While in Vienna in Q42018 the price increase for new condominiums was 7.6%, at the beginning of 2019 predominantly existing condominiums were responsible for the overall price increase (5.8% compared to new apartments which grew at 5.1%, year-on-year).

In the first quarter of 2019, the OeNB fundamental indicator for residential property prices for Vienna went up slightly up to 23.2% from a potential overvaluation (22.1% in the fourth quarter 2018). For Austria as a whole, the indicator remained the same (13.2% in Q4 2018 and in Q1 2019).

Investment has been a major pillar of the boom over the past three years – its contribution to GDP growth was just under one percentage point. In the past two years, the investment cycle has been increasingly driven by construction investment, while equipment investment momentum has slowed down. The favorable financing conditions, which are due to the low interest rate environment on the one hand and the excellent internal financing options on the other hand, have boosted companies' investment demand in recent years. The investment ratio rose to 23.9% of GDP in 2018. Besides being the highest level since the early 2000s it is the sixth highest in the EU (Euro area: 21.0% of GDP, EU: 20.5% of GDP).

Construction investment contributes significantly to investment growth since 2017. Both residential and non-residential investments posted above-average growth. However, the cycle of housing investment is coming to an end. Building permits are a leading indicator (with a lead time of about two years) compared to the number of completions. After strong growth rates in 2016 and 2017, these fell by 13% in 2018. For 2020 and 2021, the growth of housing investment is expected to smoothly subside.

MORTGAGE MARKET

Market dynamics

Residential mortgage lending growth to households was largely stable in 2018. Growth figures remained largely stable at the beginning of the year, standing

[1] Opinions expressed by the authors of studies do not necessarily reflect the official viewpoint of the Oesterreichische Nationalbank or of the Eurosystem.

at 4.6% in April 2019 compared to the previous year. Although credit standards for residential mortgage lending tightened slightly in the first quarter of 2019, lending rates for new mortgage loans continued to decline until recently, at 1.72% in April 2019, 12 basis points lower than a year before. The share of variable rate loans (1-year fixed interest rate) on new lending averaged 42.8% over the last 12 months to April 2019, decreasing from 50.0% one year before. The foreign currency share of housing loans stood at 11.0% in April 2019, down 1.4 percentage points from a year ago.

Non-market led initiatives

The key characteristics of Austria's housing policy are still focus on regulated (i.e. limited profit) rental housing and its financing tools. In 2018 the main emphasis was also put on state and regional supply-side subsidies, which aim at fostering affordable housing. Public subsidies accounted for around 0.6% 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 a 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 UK, France, Netherlands or Germany. At the same time the outputs are quite remarkable, taking quality of housing, affordability and aspects of social integration.

Housing is well positioned in the political agenda and is subject to most election campaigns on regional and federal level.

	AUSTRIA 2017	AUSTRIA 2018	EU 28 2018
Real GDP growth (%) (1)	3.0	2.7	2.0
Unemployment Rate (LSF), annual average (%) (1)	5.5	4.9	6.8
HICP inflation (%) (1)	2.2	2.1	1.9
Outstanding Residential Loans (mn EUR) (2)	107,354	112,934	7,251,189
Outstanding Residential Loans per capita over 18 (EUR) (2)	14,812	15,494	17,404
Outstanding Residential Loans to disposable income ratio (%) (2)	49.2	50.1	77.2*
Gross residential lending, annual growth (%) (2)	38.1	-0.1	2.34
Typical mortgage rate, annual average (%) (2)	1.9	1.8	2.5**
Owner occupation rate (%) (1)	55.0	55.4	69.3*
Nominal house price growth (%) (2)	3.8	6.9	6.3

* The aggregate EU figure is from 2017

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

Sources:
(1) Eurostat
(2) European Mortgage Federation - Hypostat 2019, 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 hold the biggest proportion of residential mortgages in Austria. In combination with the Saving Banks Group, Bausparkassen represent the largest market share of the mortgage market.
Typical LTV ratio on residential mortgage loans:	According to Oesterreichische Nationalbank's 2014 Financial Stability Report, the average LTV of private households is around 60% (based on survey data).
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. However, there is a falling trend in their share in total loans over many years (in 1Q2019 around 11% of mortgage loans were foreign currency loans and around 45% of new issued mortgage loans were variable rated loans).
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, VAT, notary fees and taxes. In total, around 10% of the purchase price are to be added as costs at the house purchase.
The level (if any) of government subsidies for house purchases:	Government housing subsidies accounted for 0.6% of the GDP in 2018. The subsidy scheme of the "Länder" predominantly supports supply side. i.e. low interest loans, grants and guarantees to housing developers, mostly Limited Profit Housing Associations. They provide rental, rent to buy and a small share of affordable owner-occupied apartments. Additionally, refurbishment is subsidized and housing allowances are granted.

Belgium

By Frans Meel, Union Professionnelle du Crédit

IN A NUTSHELL

→ GDP growth of 1.4% in 2018, despite modest private and public consumption.

→ Inflation averaged 2.3% in 2018.

→ House price increase of 4.7% in 2018.

→ All times highest credit production in 2018 (EUR 34 bn).

→ The National Bank of Belgium is considering the activation of the countercyclical buffer should the acceleration of the credit cycle be confirmed in the most recent data.

MACROECONOMIC OVERVIEW

According to the annual report of the National Bank of Belgium, GDP growth in Belgium tabled at +1.4% in 2018, remaining close to the average recorded since 2014. Nevertheless, growth was less robust than in the whole Euro area or in Belgium's main neighbouring countries. In 2018, market services continued to make the largest contribution to GDP growth.

The modest growth in private consumption, atypical for a time of steep job creation, is in part explained by the impact of wage moderation measures. The lower growth of public consumption reflects Belgium's more restrictive fiscal spending policies in the recent past.

Investment in housing rose slightly in 2018, after having come to a standstill in the previous year. A relatively low interest rate environment combined with expanding purchasing power has driven up demand for housing. Durable goods consumption was also up in the first half of 2018.

Growth of economic activity was again mainly driven by market services. Its value added for the first nine months rose by up to 2% on the year-earlier period in 2017, remaining comparable with its historical average. Within domestic demand, private consumption (excluding durable goods) and business investment, which together account for two-thirds of GDP, slowed down, while the economic activity relating to construction was increasing.

Belgium further bolstered its employment numbers in 2018. Domestic employment expanded by another 59,000 jobs in 2018, with the employment rate reaching 69.6%. Employment staged its biggest rise in business services, as well as in the sector comprising trade, transport and the entertainment industry. Self-employment also continued as a major factor underpinning net job creation. In line with the higher employment, the number of unemployed job-seekers fell sharply in 2018, as in the previous years. The harmonised unemployment rate dropped to 6%, a level not seen since the 1970s, a drop which was seen both in all the three Belgian regions and across all unemployment durations and age brackets.

In 2018, headline inflation remained relatively high at 2.3%. Food price inflation nearly doubled during the year, working out at 2.7% compared with 1.4% a year earlier. With an average 8.9% in 2018 energy inflation remained high, which was one of the reason of a renewed widening of the inflation gap with its neighbouring countries.

HOUSING AND MORTGAGE MARKET

HOUSING MARKET

Nominal house prices have more than doubled since the early 2000s and house price contractions during the great recession were very minor both in size and duration when compared with other Euro area countries. Property price increases consistently slowed between 2011 and 2014 but picked up sharply in 2015, notwithstanding property tax reforms, particularly in the Flemish region. House prices in Belgium continued their upward trend in 2018, albeit at a decreasing pace with respect to the previous year reaching a growth of just over 3% in the first three quarters of 2018 relative to the corresponding period in 2017. Adjusted for inflation, real house price growth came in at around 1.5%.

According to the National Bank of Belgium, house prices in 2018 would have been approximately 6.5% higher than their estimated equilibrium value with this gap growing marginally from the previous two years.

Having felt the impact of the mortgage loan tax relief reduction by the regions, particularly the Flemish region, the property market strengthened again from 2015 onwards. Low interest rates continued to underpin demand for residential property investment, also via transactions in the secondary market.

According to the "notary barometer", nationwide average house prices rose by 4.7% in Belgium (EUR 251,584), by 3.8% in Flanders (EUR 277,304), by 3.7% (EUR 189,257) in Wallonia and by 5.3% for Brussels (EUR 452,721), as compared to 2017. As far as apartments are concerned, nationwide average apartment prices rose by 1.8% in Belgium (EUR 220,095), by 1.6% in Flanders (EUR 224,331), by 0.5% (EUR 174,410) in Wallonia and by 5.4% in the Brussels region, as compared to 2017.

MORTGAGE MARKET

The outstanding amount of residential mortgage lending reached about EUR 246 bn at the end of 2018 (against EUR 233 bn at the end of 2017).[1]

In 2018, the number of new mortgage credit contracts was about 253,000 for a total amount of almost EUR 34 bn (refinancing transactions not included). The number of mortgage credits went up by more than 4%, whereas their amount went up by almost 9% to reach again an all time high.

The number of loans for the purpose of purchasing went up by 7%. The number of construction loans also went up by more than 3%. The number of loans granted for renovation (-4.4%), however, decreased, but less substantially than in 2017 (-21%).

[1] Extrapolation for the total Belgian market, based on the figures of the UPC members market (218 billion EUR).

The considerable growth of credit production in 2014 can be explained to a large extent by the exceptional figure for the fourth quarter as a consequence of the change in housing taxation in Flanders as of 2015, but, by contrast, the 2015 increase was spread over the last three quarters of the year. The strong growth in loan products in 2016, 2017 and 2018 is still closely connected to the low interest rates that further supported loan demand and lending.

According to Eurostat figures, the home ownership rate in Belgium reached in the beginning of 2018 72.70%, thereby ending the decreasing trend since 2013 and reaching again the level of 2010.

The number of mortgage credit arrears of Belgian private persons remains low and is still declining. For years, it has been about 1.1% of the number of credits outstanding and in 2018, for the first time since long, it is lower than 1% (0.95%).

The average amount of mortgage loans for "purchases" stood at approximately EUR 160,000 at the end of 2018, about EUR 15,000 (or 10.3%) more than at the end of 2015 (EUR 145,134). The average amount of mortgage loans for renovation purposes increased to ± EUR 53,000.

In 2018, the market share of new fixed interest rate loans and loans with initial fixed rate for more than ten years represented about 76.3% of loans newly provided. The share taken up by new loans granted with an initial fixed rate for 1 year, increased to 6.7% of the credits provided (coming from 0.6% in 2015). The number of loans with an initial period of variable interest rate between 3 and 5 years also showed an increase (± 17% of the credits provided).

Market Prospects

In the first quarter of 2019, the number of mortgage credit contracts amounted to almost 62,000 for a total amount of about EUR 8.3 bn, external refinancing transactions not included. This means an increase of the number of credits granted by more or less 4% all through the first quarter, as compared to last year's figure. The corresponding amount was even 7% higher than in the first quarter of 2018.

As for credit purposes, the situation as compared to that of 2018 shows an increase in the number of credit contracts for house purchasing (+4.4%), for construction (+2.3%), for buying and renovating a house (+26%) and for house renovation (+1.7%).

The number of loan applications, not including the applications for external refinancing, increased by 6.5% over the course of the first quarter, compared to the same period in the previous year, as well as the corresponding amount (+11%).

Non-market led initiatives

In the most recent publication of its Financial Stability Report, the National Bank of Belgium (NBB) expressed its concern about the build-up of large portfolios of low-yield loans which, in the long run, may jeopardise structural profitability in the banking sector, calling for correct pricing in line with the risks inherent in mortgage loans. In addition, the NBB is of the opinion that a substantial decrease in the share of risky mortgages and, in particular, a reduction in high LTV ratio loans (more than 90 %) remains necessary.

These various aspects are closely monitored by the Bank in its capacity as the macroprudential authority for Belgium. The NBB considers to activate the countercyclical buffer should the acceleration of the credit cycle be confirmed in the most recent data.

MORTGAGE FUNDING

The vast majority of funding in Belgium is provided through deposits. Covered Bonds as a funding tool is increasing its market presence reaching over EUR 22.5 bn in 2018.

	BELGIUM 2017	BELGIUM 2018	EU 28 2018
Real GDP growth (%) (1)	1.7	1.4	2.0
Unemployment Rate (LSF), annual average (%) (1)	7.1	6.0	6.8
HICP inflation (%) (1)	2.2	2.3	1.9
Outstanding Residential Loans (mn EUR) (2)	233,224	246,528	7,251,189
Outstanding Residential Loans per capita over 18 (EUR) (2)	25,779	27,123	17,404
Outstanding Residential Loans to disposable income ratio (%) (2)	93.2	95.6	77.2*
Gross residential lending, annual growth (%) (2)	-8.2	4.0	2.34
Typical mortgage rate, annual average (%) (2)	2.1	1.9	2.5**
Owner occupation rate (%) (1)	72.7	72.7	69.3*
Nominal house price growth (%) (2)	4.2	4.0	6.3

* The aggregate EU figure is from 2017.
** Please note that this value is the simple average of the typical interest rate of the EU 28 countries.

Sources:
(1) Eurostat
(2) European Mortgage Federation - Hypostat 2019, Statistical Tables.

BELGIUM FACT TABLE

Entities which can issue mortgage loans:	Banks, insurance companies and other types of lenders that have been authorised (licence) or registered by the supervising authority FSMA to grant mortgage credit according to the Belgian law on mortgage credit.
The market share of the mortgage issuances:	Based on the membership of our Association (UPC), representing ca 90% of the total Belgian market, the following market shares can be approximatively given in amount: • Banks: ca 95.9% • Insurance companies: 1.3% • Other types of lenders: 2.8% N.B.: These figures do not take into account the social credit lenders. However, their market share is rather low.
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 supervising authority FSMA. This publication has been stopped since then. On the basis of our membership, the following market shares can be approximatively given in amount: • Banks: ca 95.4% • Insurance companies: 1.4% • 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. It dropped to about 65% (and even below that) in the years 2007-2014. However, this average loan-to-value ratio has to be interpreted with caution, as the data are the result of a very wide distribution of loan-to-value ratios at origination. For the 2018 vintage, 53% of the volume of new mortgage loans was made up of loans with an LTV ratio above 80%.
Any distinction made between residential and non-residential loans:	Residential purposes means that it is for private housing (consumers). The Belgian mortgage credit law applies to mortgage credit as funding for acquiring or safeguarding immovable real rights granted to a natural person chiefly acting for a purpose deemed to lie mainly outside the scope of his commercial, professional or crafting activities and having his normal place of residence in Belgium, at the moment when the agreement is being signed: a) either by a lender having his principal place of business or chief residence in Belgium b) or by a lender having his principal place of business or chief residence outside Belgium, provided a special offer or publicity had been made in Belgium before the agreement was signed and the actions needed for signing the agreement have been undertaken by the borrower in Belgium.
Most common mortgage product(s):	The most common mortgage credit product is a loan with a term of 20 – 25 years, a fixed interest rate throughout the full loan term and a fixed amount of monthly instalments.
Typical maturity of a mortgage:	The average maturity of a mortgage loan at origination is estimated at 22.5 years. Since 2007, lenders have continued to tighten customers' access to mortgage loans with long maturities. The percentage of loans granted with a maturity of more than 25 years has plummeted from 23% in 2007 production volumes to only 2% in 2015 and 2016. At the same time, the share of loans with a maturity between 20 and 25 years in mortgage loan vintages remained relatively stable until 2016 while the share of loans with a maturity between 15 and 20 years clearly increased. These trends seem to have influenced the average maturity level of total outstanding stock as from 2013; by the end of 2015, 11% was associated with initial maturities above 25 years, down from 20% in 2012. From 2017 on, the situation seemed to be changing again: whereas in 2016 only 29.0 % of mortgage loans was granted with a maturity of over 20 years, this number rose to 37.6 % in 2017 and 39% in 2018.
Most common way to fund mortgage lending:	Most funding still comes from deposits. A few major lenders have started issuing covered bonds.
Level of costs associated with a house purchase:	From June 2018 on, the registration duty in **Flanders** is 7% of the purchase price. It only amounts to 6% in case the purchase price does not exceed EUR 200,000 (EUR 220,000 in the main cities and some cities around Brussels). Moreover, the principle of "portability of registration duties" applies in Flanders: upon the purchase of a new housing property intended to replace the previous principal residence, registration duties up to EUR 12,500 may be "transferred", meaning these duties will not have to be paid a second time. In **Wallonia**, the registration duty amounts to 12.5% of the purchase price (6% in case of small properties). However, in case of a main residence, the first EUR 20,000 of the purchase price is exempt from registration tax. In the **Brussels** region, buyers can benefit from an "abattement" (= exemption on which the buyer is not required to pay registration duties) on the first slice of EUR 175,000, compared to the first slice of EUR 75.000 before. However, this exemption is only applicable to properties of under EUR 500.000 and provided that it concerns the buyer's own and only home as his main residence. 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:	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 2018 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 80 EUR. If one buys a second house, the level of deduction goes down to EUR 1,520 (tax relief of 40%). In **Wallonia**, a new system, the so-called "Chèque habitat", applies from 2016 on. More information is available on http://lampspw.wallonie.be/dgo4/site_logement/index.php/aides/aide?aide=chequehabitat The **Brussels** region no longer provides a tax reduction. Early 2017, it was decided to replace the reduction and to grant a higher tax relief on registration duties (first slice of EUR 175,000) to buyers purchasing their own and only home as their main residence.

Bulgaria

By Sofía Garrido Pérez, European Mortgage Federation-European Covered Bond Council

IN A NUTSHELL

- → Significant GDP growth of 3.1% in 2018 on yearly basis, in a positive macroeconomic context.
- → Further expansion of housing and mortgage markets, with outstanding loans for house purchase increasing by more than 12.5%.
- → Stabilisation of the pace of growth of house prices.
- → Government measures focus on renovation in the area of housing.

MACROECONOMIC OVERVIEW

The Bulgarian economy continued to grow in 2018, however, the increase in GDP was slightly smaller than the one experienced the previous year. In 2018, Bulgarian GDP grew by 3.1%, a growth rate significantly higher than the average of the EU. As this figure proves, the positive economic development that started a decade ago in Bulgaria is continuing.

GDP growth was mainly driven by private consumption, rising wages, easing of the credit conditions and growing investment activity. The former contributed the most, since it went up by 5.7% y-o-y. On the production side, the main contributor was the real estate sector with a growth of 6.7% on yearly basis. This sector was followed by finances and construction, the latter grew by 4% y-o-y. On the other hand, industry was a weak contributor mainly due to the decrease in external demand. In this context, with stronger domestic demand and weaker foreign demand, net exports increased, widening the trade deficit. Exports decreased by -0.8% while imports increased by 3.7%.

This positive development of the economy was also favoured by the continued decrease experienced in unemployment levels. Unemployment decreased significantly in 2018 and reached 5.2%, a figure below the European average. Therefore, the higher figures of employment also helped to increase domestic demand as mentioned earlier. Finally, the rise of wages resulting from rising minimum wage and shortages of demand also contributed to economic growth.

Looking at prices, the HICP in Bulgaria during the past year increased by 2.6%, marking the second consecutive quarter of growth after several years of deflation. The main contributors to the increase of prices were energy prices, domestic demand and unprocessed food prices.

Finally, looking at the government finances we observe that in 2018 the fiscal accounts remained with a surplus of 0.8% of the annual GDP. This surplus was achieved due to the 18.1% y-o-y increase of public revenues favoured by the positive economic outlook and the growing employment levels, which was not outweighed by the smaller but significant increase in public wages which considerably raised spending levels. Likewise, government debt levels decreased for a further quarter, reaching 24.0% of the GDP.

All in all, the Bulgarian macroeconomic context is positive with growing GDP, growing employment levels and healthy public finances.

HOUSING AND MORTGAGE MARKETS

HOUSING MARKET

Helped by a good macroeconomic outlook, the housing market also performed adequately. GDP growth, lower unemployment and low interest rates contributed to the expansion of the housing market in Bulgaria, and especially in the main cities of the country.

In 2018, 3,824 dwellings were started, which means an increase of 4%. Similarly, the number of permits issued rose, reaching 5,956 units. The increase in construction activity was mainly driven by the increase of house prices at higher rates than construction costs, therefore, making real estate an attractive investment. However, despite the increasing figures in construction, supply continued to lag behind demand.

This friction between supply and demand pushed house prices upwards. Consequently in Bulgaria, house prices increased by 5.5% on annual basis, a figure lower than the two previous years but still significant. Differences in terms of the rate of growth are observed among the different regions and cities. The highest price increase was recorded in the capital, Sofia, where prices increased by 33% y-o-y, as a result of the fact that the capital continues to be the most preferred location. During the first half of 2018, house prices in Sofia ranged between EUR 145,000 and EUR 180,00 for two bedroom apartments, and the prices of houses started at EUR 450,00. A significant increase in house prices was also observed in the two second largest cities, Varna and Plodiv, with 26.3% and 16.3% growth respectively.

Looking at the number of transactions, we observe how it also increased reflecting the activity and expansion of the market. In the capital, the number of transactions increased by 12% on yearly basis.

However, in the rental market the increase in prices was significantly smaller and prices remained practically unchanged with respect to 2017.

MORTGAGE MARKET DYNAMICS

Bulgaria's mortgage market has seen great variations since 2000. In 2018 the national mortgage market grew at a very similar pace as the previous year, by 12.52%, a very remarkable growth rate which shows the potential for further expansion of the market. If we look at the amount of gross mortgage lending, we see that this has also grown, albeit at a lower pace, by 5.48% y-o-y.

Regarding the interest rates on these mortgages, the representative interest rate for 2018 stood at 4.64%, a figure above the EU average, but well below the maximum levels reached in 2009. Mortgages can be taken in the form of repayment (including interest and capital) or interest only loans.

More than 92% of the mortgage loans issued are BGN-denominated loans. The maximum maturity term for mortgages in the country is set at 25 years, and the minimum amount that can be borrowed is EUR 50,000, with no upper limit. Nevertheless, the maximum LTV is 75%. In this context, there is a tendency for the average LTV in the country to be higher year on year.

The increasing demand for housing loans, which has risen more than that for consumer loans, is accompanied by higher quality applications and is expected to remain stable. This is due mainly to the good expectations on the housing market and the increase in consumer confidence. Likewise, the level of NPLs in the country continued to decrease, however, it is still above most other EU countries.

On the supply side, in the first quarter of 2018, credit standards for households for house purchase eased, while during the second quarter they remained unchanged. The easing of credit standards was mainly consequence of the improved consumer confidence, the decrease in risk assessments as a consequence of the positive macroeconomic context, favourable housing prospects and lower collateral risk.

NON-MARKET LED INITIATIVES

Within the Bulgarian Government the Ministry of Regional Development and Public Works is in charge of housing related programmes. One of the programmes currently in place is the National Renovation Program which started two years ago and will continue in the future with co-financing from owners in relation to renovation activities. In the past two years, this program led to the renovation of more than 100,000 residential buildings, and the plan includes the renovation of another 42,000 buildings in the next 25 years. This programme is intended to address the high average age of the buildings which is currently between 31-35 years. Furthermore, the Ministry aims to achieve sustainable housing in the country by 2030.

Other measures explored by the government aim to solve another challenge in the housing market in Bulgaria, namely the high level of uninhabited dwellings together with the high levels of people who can not afford housing. The intention, therefore, is to match supply and demand.

MORTGAGE FUNDING

The Banking system in Bulgaria comprised 25 banks at the end of 2018. As was expected, deposit accumulation in the banking system increased in 2018 and reached BGN 77.66 bn at the end of December, which represents 71.8% of Bulgarian GDP. This growth in deposits was the result of the improvement of the macroeconomic environment, the preference of corporations and households to deposit their funds in banks and the strengthening of consumers confidence. Households still represent the main contributor, since they hold 66.4% of deposits. Therefore, given their importance deposits are the main funding tool used in Bulgaria.

Mortgage bonds, as a subcategory of corporate bonds, are traded at the Bulgarian Stock Exchange-Sofia. However, Bulgaria has no active covered bond market as yet.

	BULGARIA 2017	BULGARIA 2018	EU 28 2018
Real GDP growth (%) (1)	3.6	3.1	2.0
Unemployment Rate (LSF), annual average (%) (1)	6.2	5.2	6.8
HICP inflation (%) (1)	1.2	2.6	1.9
Outstanding Residential Loans (mn EUR) (2)	4,190	4,715	7,251,189
Outstanding Residential Loans per capita over 18 (EUR) (2)	709	805	17,404
Outstanding Residential Loans to disposable income ratio (%) (2)	13.6	15.1	77.2*
Gross residential lending, annual growth (%) (2)	39.9	5.5	2.34
Typical mortgage rate, annual average (%) (2)	4.0	4.6	2.5**
Owner occupation rate (%) (1)	82.9	83.6	69.3*
Nominal house price growth (%) (2)	8.7	5.5	6.3

* The aggregate EU figure is from 2017.
** Please note that this value is the simple average of the typical interest rate of the EU 28 countries.

Sources:
(1) Eurostat
(2) European Mortgage Federation - Hypostat 2019, Statistical Tables.

BULGARIA FACT TABLE

Entities which can issue mortgage loans:	In Bulgaria there are no specialised mortgage banks, therefore, commercial banks provide mortgages. However, there are specific Bulgarian banks offering home loans to foreigners, such as Bulbank, DSK Bank, First Investment Bank, Invest Bank (I-Bank) and United Bulgarian Bank (UBB). Furthermore, the Greek bank Piraeus, which has 13 branches in Bulgaria, also offers 'Bulgarian' mortgages.
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:	The average LTV ratio is 70% for those properties under EUR 100,000, 75% for properties over EUR 100,000 and usually around 60 to 65% for brand new dwellings.
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, however, mortgages with fixed interest rates are also available. Interest rates have been decreasing in the last years and now they are usually around 4-5%.
Typical maturity of a mortgage:	The average maturity of mortgage loans in Bulgaria is around 18 years with the maximum term of any mortgage being 25 years.
Most common way to fund mortgage lending:	Funding of mortgage loans is based largely on deposits. Mortgage bonds are being issued but they are not the primary source by banks.
Level of costs associated with a house purchase:	A variety of taxes and fees are payable when you buy a property in Bulgaria, most of which vary according to the price, but which may also depend on whether the property has land attached, whether you're buying through an agent (as opposed to buying direct from the vendor), whether you've employed a lawyer and surveyor and whether you employ a translator. On top of the purchase price, the purchaser should be aware of the following related costs: 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 exempt for residential purposes, otherwise it is 20% with the possibility to have a refund for registered entities).
The level (if any) of government subsidies for house purchases:	Not available

Croatia

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

IN A NUTSHELL

→ In the housing market, the growth trend continued from the previous period: housing supply (construction sector activity) and demand (the number of dwellings sold) continued to increase.
→ A stronger increase of house prices was recorded, and such a trend is expected to continue.
→ The mortgage market recorded positive movements: housing loans continued to rise.
→ Mortgage interest rates continued to fall.
→ The real estate transfer tax was lowered for second year in line, now from 4% to 3% (application of new Law from January 2019).

MACROECONOMIC OVERVIEW

In general, the positive trend in relation to domestic economic activity in 2018 continued when considering crucial economic indicators. Economic growth for 2018 was at a lower level than in 2017 as a result of the monthly indicators for the fourth quarter of 2018 experiencing a slowdown on a quarterly basis. However, a small increase in economic activity at the end of 2018 compared to the previous quarter was observed despite unfavorable developments in industry components (capital goods, durable consumer goods). As a consequence, real GDP growth for 2018 as a whole reached 2.6% (2.9% in 2017). *(CNB, Bulletin; European Commission, European Economic Forecast)*

Monetary policy retained its expansionary character in 2018. The Croatian National Bank alleviated appreciation pressures on the kuna/euro exchange rate by purchasing foreign currency from banks. Consequently, domestic currency liquidity of credit institutions remained at a very high level. The result of such a policy was the highest recorded level of bank liquidity reserves, but also further decline of interest rates on new bank loans granted to households and the corporate sector and increased bank lending volumes to those sectors. After years of negative levels or levels near 0%, the current account balance (as % of GDP) finally recorded positive results (4.1%) in 2017 and continued with positive trends in 2018. If cumulative results in the whole year 2018 are observed, the current and capital account surplus stood at 2.9% of GDP. *(European Commission, European Economic Forecast; CNB, Bulletin)*

Despite the temporary stagnation in economic activity, the fact that the balance of current and capital accounts deteriorated and the external debt of the domestic sectors increased, the downward trend in external debt continued from the previous year. At the end of 2018 gross external debt stood at 75.4% of GDP (82.1% at the end of 2017). The net external debt of the domestic sector rose slightly in the fourth quarter of 2018, after strong deleveraging in the previous period. The central government ran a surplus of 0.2% of GDP throughout 2018 (consolidated general government net lending/surplus for 2017 was at 0.8% of GDP). Favorable fiscal developments in 2018 were partially subdued at the end of the year by payments for guarantees issued to shipyards. Additionally, the surplus does not include outlays for activated shipyard guarantees. These outlays will be included in general government expenditure and will worsen the budget balance in 2019. The favorable budget outturn in the area of public finance, in addition to economic growth and the strengthening of the exchange rate of domestic currency against the euro, led to a further reduction in the general government debt-to-GDP ratio from 77.8% at the end of 2017 to 74.6% at the end of 2018. As a result of the improvement in fiscal and economic indicators in 2018, one of the rating agencies upgraded Croatia's credit rating to investment grade. *(European Commission, European Economic Forecast; CNB, Bulletin)*

In 2018 favourable developments in the labour market continued. Unemployment continued to decrease, slightly more as a result of clearings from the records for reasons other than employment (non-compliance with legal provisions, registration cancellation and failure to report regularly). Consequently, the registered unemployment rate decreased from 11.0% at the end of 2017 to 8.4% at the end of 2018. Consumer price inflation fell to 0.8% at the end of 2018, mostly as a result of a considerable fall in the annual rate of change in the price of petroleum products according to the Croatian National Bank. Inflation rate (CPI) at the level of 2018 stood at 1.6% (1.3% in 2017).

HOUSING AND MORTGAGE MARKETS

HOUSING MARKET

Croatia's property market continued in 2018 with positive trends from the previous year. The number of new dwellings sold increased significantly, nearly by 20%, from 2,429 in 2017 to 2,880 in 2018 and, if we observe house price levels, the trend of growth is even more noticeable.

The construction sector in 2018 continued to experience mostly positive developments from the previous period. More concretely, dwelling permits issued decreased, but only by 6.3% to 11,719 units in 2018, after a period of stronger growth of 33.1% in 2017 (in comparison to previous year) when 12,509 building permits were issued. However, these numbers are still below the annual average number of 22,000 units from the pre-crisis period. Also, in 2018 Zagreb was the city which had the most building permits (residential buildings), 2,080, as was the case in almost all of the previous years observed. The County of Zadar took the second place in 2018 with 1,829 building permits issued, and the County of Split-Dalmatia third place with 1,700 building permits. In general, about 70% of building permits issued are for new construction and the rest, 30%, for reconstruction. *(Croatian Bureau of Statistics)*

The total number of new dwellings sold in the Republic of Croatia slightly increased to 2,880 in comparison to 2,429 units in 2017. House prices also continued to increase in 2018. During the last year, the average price of new dwellings sold in the Republic of Croatia was HRK 11,466 (or EUR 1,545) per square meter, which represents a stronger increase in comparison to 2017 prices (HRK 10,734 or EUR 1,429). The price of dwellings constructed by trade companies and other legal entities and those constructed under the government supported "Publicly Subsidized Residential Construction Program", are included in the calculation of these average prices (per square meter of sold new dwellings). The average sale price of new dwellings constructed by trade companies and other legal entities in 2018 increased to HRK 11,819 per square meter (2,631 units sold) in comparison to 2017 when the average price was HRK 11,128 per square meter (2,137 units sold). The prices for new dwellings constructed under "Publicly Subsidised Residential Construction Program" were significantly lower; in 2018 their average price was HRK 7,670 (249 units sold) against HRK 8,132 per square meter and 292 units sold in 2017. Consequently, the influence of the sale structure and price levels on the total average price of sold new dwellings per square meter must be taken into consideration. Data on prices of new dwellings sold are collected from legal entities that are at the same time contractors of construction works. They do not include legal entities that solely intermediate in the sale of the existing dwelling stock, that is, "old dwellings". In Croatia's capital, Zagreb, the total number of new dwellings sold increased to 1,302 units in 2018 (from 1,086 units in 2017), which represents 45% of Croatia's new dwelling stock. But, the average price of new dwellings sold significantly increased to HRK 12,749 per square meter (or EUR 1,718) in 2018 from HRK 12,098 (EUR 1,610) per square meter in 2017. In all other settlements, total number of sold new dwellings slightly increased in 2018 to 1,578 units (from 1,343 units in 2017) as well as the average price of new dwellings, that increased a bit stronger to HRK 10,310 per square meter in 2018 (or EUR 1,390) in comparison to the HRK 9,679 (EUR 1,288) per square meter in 2017. *(Croatian Bureau of Statistics)*

MORTGAGE MARKET

Mortgage lending continued to grow from the previous year (2017), after many years of decline. Outstanding mortgage loans in 2018 amounted HRK 54,040 mn, which represents an increase of 2.3%.

Despite a further decrease in the relative importance of commercial banks in relation to Croatian financial sector assets, they still play a dominant role in housing finance in general. Nearly 70% of Croatian financial sector assets are credit institutions' asset, at HRK 414 bn (EUR 55,8 bn) at the end of 2018 (99% of that is commercial banks assets). Housing loans in 2018 took a share of 44% of total loans granted to the household sector, or about 12.5% of total credit institutions' assets. Banks' housing loans remain dominant in the total structure of housing loans granted and made up about 92% of all housing loans granted in the Republic of Croatia. The remaining 8% was granted by housing saving banks. The situation of housing saving banks has not changed and they continue to play only a symbolic role in the Croatian market-oriented housing finance system. In that sense, housing saving banks asset represent less than 2% of credit institutions' total assets. Additionally, in 2018 their number was reduced by one as a result of acquisition of one saving bank by a founder commercial bank, meaning there are now only 4 active savings banks. In the Republic of Croatia, there are still no other financial institutions involved in the market-oriented housing finance system. *(CNB, Statistical data)*

Most commercial banks in the Republic of Croatia offer housing loans for periods of typically up to 30 years, with an LTV ratio of up to 80%, mostly 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. In 2018, the trend of supply and demand for housing loans denominated in domestic currency continued, mostly due to the decline of interest rates on domestic currency loans as a result of the drop in the general level of interest rates. In that sense, the value of total housing loans granted in 2018 (new business) amounted HRK 11,1 bn (HRK 10,6 bn in 2017), of which 34% were denominated in domestic currency (53% in 2017) with an average interest rate of 3.7% (4.1% in 2017) and 66% denominated in F/C or in domestic currency indexed to F/C (47% in 2017), mostly in EUR and with average interest rate of 3.5% (3.8% in 2017). *(CNB, Statistical data, Credit institutions, tables g2a and g2b)*

The value of total outstanding housing loans at the end of 2018 amounted to HRK 54.04 bn (or EUR 7.29 bn), which represents a slight increase in comparison to 2017 (HRK 52.8 bn or EUR 7.10 bn). However, 30% of that amount comprised housing loans denominated in domestic currency and 70% denominated in F/C, mostly in EUR, as a consequence of the trend in new housing lending business towards loans in a foreign currency in the last few years (about 90% of the total volume of outstanding housing loans was in F/C or in domestic currency indexed to F/C for a long period of time). *(CNB, Statistical data, Credit institutions, table d5)*

The Law on subsidised housing loans for younger citizens together with the Mortgage Consumer Protection Act, both introduced in 2017, positively affected mortgage and housing markets, especially in 2018. The Mortgage Consumer Protection Act brought more transparency to mortgage lending and more protection to homebuyers with mortgages. Moreover, government subsidies for housing loans aimed at younger people in order to help them to solve their housing difficulties and buy their first home under more favorable conditions, brought much more stimulus to housing market movements than all other factors mentioned earlier, especially in relation to price increases. Together with favorable macroeconomic movements and those on the financial (mortgage) markets, this measure was the trigger for noticeable revival of the housing market. However, a longer-term effect of such measures is questionable, since they cannot solve existing problems in the market. Unrealistic price movements push the housing market and construction sectors forward, but in the longer term this could be a problem.

Croatia's residential market continues to attract foreign buyers, especially in the tourism-oriented counties at the coast, with the most attractive (luxury) residential properties located in the counties of Istria, Primorje-Gorski Kotar, Split-Dalmatia, Zadar and Dubrovnik-Neretva. A further decrease of the real estate transfer tax was announced for 2019, but in 2018 this rate stood at the level from 2017 when it was lowered from 5% to 4%. The tax decrease together with other favorable factors mentioned earlier continued to have strong positive effects on mortgage and housing market evolution in 2018.

MORTGAGE FUNDING

In 2018, no changes in the sources for housing financing occurred. Croatian commercial banks and certainly housing saving banks were primarily and dominantly funded through deposits. The funding structure of credit institutions in the Republic of Croatia at the end of 2017 (last available data) was as follows: deposits 93.5%, loans 5% and other sources 1.5%. The reasons for this funding structure are their continuous and permanent dominance in the financial sector in relation to traditional household savings and external financing activities. The absence of adequate regulation, which would make the introduction of advanced housing financing techniques possible, emphasises the reasons for such a funding structure and the structure of the housing finance system as a whole. However, advanced housing financing techniques via mortgage covered bonds or mortgage backed securities issuance are still not sufficiently recognised, but currently they are not required as a funding solution since the high liquidity in the banking sector and low money market interest rates continued and suggested that the deposit base provides more than enough funds for lending needs and activities. Nevertheless, the country is ready to implement the European Covered Bond Framework (The Covered Bond Regulation and Directive) into its national legal system once it enters into force.

	CROATIA 2017	CROATIA 2018	EU 28 2018
Real GDP growth (%) (1)	2.9	2.6	2.0
Unemployment Rate (LSF), annual average (%) (1)	11.0	8.4	6.8
HICP inflation (%) (1)	1.3	1.6	1.9
Outstanding Residential Loans (mn EUR) (2)	7,101	7,293	7,251,189
Outstanding Residential Loans per capita over 18 (EUR) (2)	2,075	2,152	17,404
Outstanding Residential Loans to disposable income ratio (%) (2)	n/a	n/a	77.2*
Gross residential lending, annual growth (%) (2)	-45.4	4.3	2.34
Typical mortgage rate, annual average (%) (2)	4.0	3.6	2.5**
Owner occupation rate (%) (1)	90.5	90.1	69.3*
Nominal house price growth (%) (2)	6.9	6.8	6.3

* The aggregate EU figure is from 2017.
** Please note that this value is the simple average of the typical interest rate of the EU 28 countries.

Sources:
(1) Eurostat
(2) European Mortgage Federation - Hypostat 2019, Statistical Tables.

CROATIA FACT TABLE

Entities which can issue mortgage loans:	Commercial banks and housing saving banks
The market share of the mortgage issuances:	Commercial banks dominate the market.
Proportion of outstanding mortgage loans of the mortgage issuances:	Commercial banks hold 92%, and housing saving banks hold the rest 8%.
Typical LTV ratio on residential mortgage loans:	Between 70 and 80%.
Any distinction made between residential and non-residential loans:	Residential purposes – housing loans, non-residential purposes (but collateralised by mortgages) – mortgage loans.
Most common mortgage product(s):	Housing loans
Typical maturity of a mortgage:	Between 20 and 30 years
Most common way to fund mortgage lending:	Deposits
Level of costs associated with a house purchase:	Real estate transfer tax (3% of market value, application from January 2019); transaction costs (fees and commissions): up to 2% of market value; and other costs (agency intermediation, public notary, etc.): 2-4% of market value.
The level (if any) of government subsidies for house purchases:	Low (in the part of government supported "Publicly Subsidized Residential Construction Program", through the governmental incentives for housing savings and through the limited government financial support for first housing property purchase).

Cyprus

By Ioannis Tirkides, Bank of Cyprus, Economic Research

IN A NUTSHELL

- → Economic recovery continued unabated in 2018, driven by traditional sectors, primarily, tourism, construction and professional services.
- → Residential property prices continued to rise in 2018 aided by rising economic activity and declining unemployment.
- → The resolution of the Cyprus Cooperative Bank in the summer of 2018 and the establishment of an asset management company led to a significant reduction of non-performing exposures and private indebtedness levels.
- → New home sales have been rising markedly since 2014 and continued to rise sharply in the first half of 2019.
- → Driven by deleveraging, funding conditions in the banking sector continued to improve in 2018 allowing banks to increase their mortgage lending.

MACROECONOMIC OVERVIEW

In 2018 real GDP grew by 3.9% after growing by 4.5% in 2017. Growth was driven by tourism, construction and professional services and by domestic demand on the expenditure side. Fixed investment remained sub-par, and driven by building and construction activity.

The labour market recovered strongly and the unemployment rate dropped to 8.4% in 2018 from 11% in 2017. The employment rate rose to 57.2% and the labour force participation rate reached 62.4%. As population growth is slowing, government policy will need to focus on retirement age, labour force participation and productivity growth. Consumer inflation remained fame in 2018 to 0.8% from 0.7% in 2017. This was mainly due to higher global energy prices while overall inflationary pressures remained modest.

The fiscal consolidation programme of last years has been successful. The large budget deficits of 2009-14 have been reversed into substantial surplus positions. In 2018 the budget surplus reached 3.5% of GDP when the fiscal burden of the Cyprus Cooperative Bank transaction is excluded. The primary surplus correspondingly reached 6% of GDP. Public debt as a ratio to GDP rose from 95.8% in 2017 to 102.5% in 2018 driven by the Cyprus Cooperative Bank transaction while the underlying fundamentals remained favourable.

In the banking sector, the stock of non-performing exposures dropped sharply in 2018 to 30.5% of gross loans compared with a ratio of 42.5% a year earlier following the resolution of the Cyprus Cooperative Bank. The ratio of total impairments to total non-performing exposures was 51.2% at the end of December 2018.

Looking forward, real GDP in 2019 and 2020 is expected to rise by 2.9% and 2.6% respectively according to the European Commission. With external demand weakening, exports growth will be moderate. Slowing growth in the Euro Area and persistent uncertainties in major trading partners will increase downside risks and weight on the outlook.

HOUSING AND MORTGAGE MARKETS

HOUSING MARKET

There is a high tendency for home ownership in Cyprus even though it has been declining modestly in more recent years. According to Eurostat, the ratio of owner-occupied homes in Cyprus was 70.7% in 2017. This was down from 72.5% the previous year and from a high of 74% in 2013, reflecting the impact of the recession of 2011-2014. However, the Cypriot ratio compares with a ratio of 69.3% in the European Union in 2017, and 66.1% in the Euro Area.

In terms of real gross value added in national accounts, the construction sector peaked in 2007 on an annual basis and declined steeply until 2015. The cumulative decline in the period was 65.8%. The ratio of real gross value added to total economy dropped from 11.8% to 4.2% in the same period. The construction sector started to recover in 2016 rising by 16.5%. The recovery of the sector continued in 2017 and 2018 rising respectively by 27% and 24.3%. In 2018 the ratio of real gross value added to the total economy was 6.8%.

According to the Cyprus Statistical service, the gross output of the construction sector at current prices peaked in 2008 at EUR 4.9 bn and dropped by a cumulative 65.2% to EUR 1.7 bn in 2014. Gross output in construction had been declining over a period of six consecutive years and rose by a cumulative 16.6% between 2014 and 2017 to EUR 2.8 bn. In terms of ratios to total economy Gross Domestic Product at current prices, gross output in construction dropped from a peak of 25.9% in 2008, to a low of 9.7% in 2014 and rose to 14.4% in 2017.

The number of completed new dwellings in 2017 when data is available was 2,993 compared with 2,570 the year before and a peak of 18,195 in 2008. The construction of new dwellings increased three and a half times between 2000 and 2008. The stock of dwellings rose to 452,000 at the end of 2017. The dwellings stock was rising by 2.4% in the period 1995-03; by 3.9% during 2004-11; and slowed to a pace of 0.8% annually in the period 2012-17.

On the basis of the Central Bank's residential property index, prices peaked in the third quarter of 2008 in Cyprus as a whole and across the provinces except for Limassol, where prices peaked in the fourth quarter. Prices were declining through to the middle of 2016 on a quarterly basis. In this period residential prices dropped by a cumulative 32% on an economy-wide basis. Correspondingly prices dropped by 30.7% in Nicosia; 27% in Limassol; 34.7% in Larnaca; 26.7% in Paphos; and 40.6% in Famagusta. Residential property prices rose by 1.1% on average in 2017 and by 1.6% in 2018. These increases were driven by the rise in apartments rather than houses. There were differences across the provinces as well. The highest growth was in Limassol.

Property prices exhibited strong correlation with overall economic activity and GDP growth. With the recovery that started in 2015 firming up, property prices might be expected to continue to rise in parallel baring unforeseen shocks. Regional differences in price developments reflect differences in the composition of demand. There is a high proportion of vacation and second homes in the

Larnaca, Paphos and Famagusta regions where prices have been weaker in both the contraction and the recovery phases.

New sales as reflected in sales contracts registered are still considerably below their peak levels 2007, but have been rising sharply since 2014, up a steep 42.6% in 2016; 23.7% in 2017; and 5.8% in 2018. In the first seven months of 2019 new sales were up 20.3% year-on-year.

MORTGAGE MARKETS

Market dynamics

The mortgage market remained relatively large in relation to GDP after years of restructuring and deleveraging. Total loans for house purchase at the end of 2018 amounted for EUR 9.7 bn or 46.6% of GDP. Loans for house purchase to domestic residents were EUR 8.7 bn or 41.8% of GDP. This is a drop of 22% from the prior year and a cumulative drop of about 58% from the 2011 peak of EUR 12.5 bn for domestic residents. The steep decline in 2018 reflects primarily the resolution of the Cyprus Cooperative Bank in the same year. New mortgage loans in 2018 amounted to EUR 965 mn of which EUR 96 mn were renegotiated amounts. This compares with new mortgage loans in 2017 of EUR 857 mn of which EUR 136 mn were renegotiated amounts.

Mortgage lending rates have been declining since 2008-09. The floating rate for up to one year for house purchase dropped from a yearly average of 5.97% in 2008 to 2.41% in 2018. Mortgage lending rates continued to drop in the first half of 2019.

Loan performance of households and non-financial corporations deteriorated markedly in the aftermath of the bail-in for recapitalising banks in 2013 and the deep recession from the second half of 2011 to the end of 2014. Non-performing exposures, as defined by the European Banking Authority, rose sharply in the period and dropped significantly in its aftermath. The resolution of the Cyprus Cooperative Bank and the sale of a package of loans by Bank of Cyprus in the second half of 2018, led to a steep decline of on-balance sheet non-performing exposures. 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 indicative of the performance of mortgages as well.

Non-performing exposures of the household sector were EUR 5.2 bn at the end of 2018 compared with EUR 11 bn at the end of 2017 and EUR 13.1 bn at the peak in early 2015. The non-performing exposure ratio dropped to 37.7% of gross loans in 2018 from 52.4% in the prior year. The steep reduction in 2018 was primarily due to the resolution of the Cyprus Cooperative Bank which led to the establishment of an asset management company. Mitigating this large ratio of non-performing exposure, is a high provisioning ratio of 44.2% at the end of 2018 and a high ratio of restructured facilities in of 45.5% of the non-performing exposures of the household sector.

Non-Market led initiatives

The property market in Cyprus is being affected by changes in various tax related alterations and other legislative measures. The property tax payable to the Tax Department was reduced in 2016 and abolished in 2017.

A new amendment law that came into force on 2 January 2018 introduces a 19% VAT on building land and on the leasing of commercial property for business purposes.

As part of its policies aiming to attract foreign investors in Cyprus through the 'Scheme for Naturalisation of Investors in Cyprus by Exception', the Council of Ministers in March 2014 established relevant new financial criteria. This led to a substantial increase in foreign demand for property in 2016-2018. Banks are applying stricter loan-to-cost ratio for projects targeted at foreign residents under the Naturalisation scheme and higher loan-to-value ratios for high value assets for non-residents.

MORTGAGE FUNDING

Bank funding in Cyprus is dependent primarily on customer deposits. Funding conditions are comfortable as reflected in the gross-loans (not including provisions), to deposits ratio at 70.5% at the end of 2018. Cyprus banks have access to ECB funding. The securitisation legislation which has been enacted in July 2018 provides an additional tool for banks to obtain funding.

	CYPRUS 2017	CYPRUS 2018	EU 28 2018
Real GDP growth (%) (1)	4.5	3.9	2.0
Unemployment Rate (LSF), annual average (%) (1)	11.1	8.4	6.8
HICP inflation (%) (1)	0.7	0.8	1.9
Outstanding Residential Loans (mn EUR) (2)	11,123	8,670	7,251,189
Outstanding Residential Loans per capita over 18 (EUR) (2)	16,196	12,463	17,404
Outstanding Residential Loans to disposable income ratio (%) (2)	87.0	66.7	77.2*
Gross residential lending, annual growth (%) (2)	32.6	20.7	2.34
Typical mortgage rate, annual average (%) (2)	2.8	2.4	2.5**
Owner occupation rate (%) (1)	70.7	n/a	69.3*
Nominal house price growth (%) (2)	1.1	1.6	6.3

* The aggregate EU figure is from 2017.
** Please note that this value is the simple average of the typical interest rate of the EU 28 countries.

Sources:
(1) Eurostat
(2) European Mortgage Federation - Hypostat 2019, Statistical Tables.

CYPRUS FACT TABLE

Entities which can issue mortgage loans:	Financial institutions (banks and the Housing Finance Corporation HFC).
The market share of the mortgage issuances:	100%
Proportion of outstanding mortgage loans of the mortgage issuances:	Banks: >95% and HFC: <5%
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 (since February with ECB rate floored at zero). Fixed rate housing loans are also offered.
Typical maturity of a mortgage:	The average maturity is 22 years.
Most common way to fund mortgage lending:	Customer deposits.
Level of costs associated with a house purchase:	The costs associated with house purchase include: a transfer tax; the costs of title deeds, stamp duty, a mortgage fee and finally a land tax.
The level (if any) of government subsidies for house purchases:	None, there are no government subsidies for house purchase in place.

Czech Republic

By Martin Kotek, Komerční Banka

IN A NUTSHELL

→ Good macroeconomic situation with stable growth of wages, low unemployment rate and still low interest rates supported consumer confidence and an optimistic approach to housing finance;

→ Real estate prices continued to grow, particularly due to the low levels of supply in the real estate market and the strong demand for own housing boosted by the current positive macroeconomic situation;

→ Mortgage production was stimulated by consumers' negative expectations as a worsening of affordability due to higher interest rates and tighter regulation was expected.

MACROECONOMIC OVERVIEW

The Czech economy grew in 2018 by 3.0% , a slower pace than in 2017, mainly as a result of labour shortages and a shortage of production capacity, and partially due to external influences, particularly the slow-down of the EU economy and the subsequent negative impact on Czech exports.

Economic growth was driven mainly by domestic demand, while increasing consumption was driven by low unemployment rate, growing wages and the generally optimistic expectations of consumers. The weak impact of production industries was compensated by the growth in construction and services.

Total consumption increased by 3.4%, out of which private consumption grew by 3.1% and public expenditure by 3.9%, pointing to a triple dynamic compared to 2017.

Also, gross fixed capital formation contributed positively to GDP growth, with growing investment activity and a decrease of inventories. Furthermore, the significant dynamic investment in the building industry was thanks to the co-financing of structural European funds and the use of new technologies and machinery as one of the ways to solve the critical labour shortage.

However, lower demand on foreign markets impacted exports, and the negative impact of net exports on GDP was 0.7 pps.

Regional divergences continued to deepen in 2018. While GDP per capita has doubled in the last 22 years in Prague and Mid-Bohemia region, there are regions with growth of less than 20%. The same trend is observed in unemployment rates – while in Prague the unemployment rate dropped below 2%, it exceeded 4% in regions with the worst figures.

These divergences are particularly driven by different sectorial structure evolution, and different levels of entrepreneurial activity and education.

The employment rate (share of employed persons in age 15-64) increased to 75.4% which is the highest rate in history.

The unemployment rate decreased to 2.1% in Q4 2018 (-0.4 pps y-o-y). By the end of the year, the number of vacancies was higher than the number of registered unemployed persons. This situation on the labour market led to a dynamic growth of the average monthly wage, which increased by 8.1%.

Finally, the inflation index decreased from 2.5% in 2017 to 2.1%. This was driven mainly by a decrease in food prices and agricultural production, which seems to have rather short-term character.

HOUSING AND MORTGAGE MARKETS

HOUSING MARKET

The housing market in the Czech Republic followed the trend of previous years – prices increased by 9.8%. This trend persisted as a result of the good macroeconomic situation, positive consumer expectations, good investment opportunities in real estate, together with low construction dynamics (housing) and administrative difficulties, mainly related to the issuance of building permits and the proceedings related to permits for developer projects which do not match with consumer demand. Although wages also grew rapidly, real estate price growth exceeded growth of both real and nominal wages.

New developments in relation to the mortgage market (see next section) which make financing of housing purchase and construction little by little less affordable did not affect prices in a negative way in 2018. Nevertheless, figures from the end of 2018 and the beginning of 2019 indicate that perhaps 2019 could bring a certain slow-down in housing price dynamics.

The market remains heterogenous with important regional differences. The most expensive houses are located in big cities (Praha, Brno), but as housing becomes less affordable in these cities, the trend is to buy houses in the surroundings which leads to the growth of prices also in these areas e.g. Mid-Bohemia region. Finally, the acquisition of housing in North- Bohemia or North-Moravia region is still cheaper and in some other locations it has also became the subject of speculation.

MORTGAGE MARKET

The mortgage market in the Czech Republic was in good shape in 2018. Although sales decreased by 5%, outstanding volumes continued to grow – in the last year by 9.3%.

The small decrease in sales was driven by the following:

- continued low levels of supply on the real estate market;
- rapidly growing prices of real estate that make housing less affordable;
- gradually growing interest rates; despite the fact that they remained under 3% p.a. for the majority of the year;
- new regulation of housing finance from the Czech National Bank focused on income indicators.

Strong consumer willingness to finance their housing needs using debt did not change thanks to their confidence in the current macroeconomic situation and their optimistic expectations - growing wages, low unemployment rate, savings of households and the perception of home ownership as a good investment. Also, mortgage providers view the current situation optimistically, nevertheless they have not relaxed their credit assessment principles.

On the other hand, this general optimism from market participants is constrained by the regulatory bodies. The Czech National Bank updated its Recommendations on management of risks associated with the provision of retail loans secured by residential real estate in force since 1 October 2018. The recommendations of the Czech National Bank are part of its macroprudential policy and are the reaction to developments in the housing market. The last update requires to mortgage providers to not only manage LTVs but also income indicators – DTI (Debt to Income) and DSTI (Debt Service to Income). The maximum DTI was set to 9 (a consumer's total loans outstanding cannot exceed 9 times his/her yearly net income) and maximum DSTI on the level of 45% (monthly loans repayments cannot exceed 45% of a consumer´s net monthly income). These new indicators have an impact on the demand for finance, however the full effect of this measure is expected to impact mortgage market in 2019. The intention to manage income indicators was announced 3 months before entering into force and gave rise to negative expectations concerning mortgage affordability. Increased demand for housing loans and increased sales and communication activity on the part of loan providers was observed mainly in August and September as mortgage providers sought to process as many loan applications as possible under the "old" rules.

The average size of a mortgage loan grew as a consequence of real estate price growth. However, the LTV for new sales stagnated because of the upper limits put in place by the Czech National Bank. As a result, consumers invest more of their own funds or use additional collateral to reach an acceptable LTV. The establishment of income indicators leads to more frequent involvement of co-debtors, however many consumers were unable to secure a mortgage loan and thus to acquire their own home.

The risk profile of existing mortgages portfolios is still very good, stress tests undertaken by the Czech National Bank provided quite good results for potentially bad economic times.

There was a visible move in relation to pricing in 2018. Interest rates continued to grow – mortgages followed the increase of basic interest rates by the Czech National Bank and the growth of the cost of funds on financial markets. The basic rate from the Czech National Bank was increased 5 times, from 0.50% at the beginning of the year to finally 1.75% at the end of the year. On the other hand, the growth of cost of funds was not fully transferred to consumer interest rates, which led to decreased margins. This approach of mortgage providers was the effect of strengthened competition. Nevertheless, average mortgage interest rates almost reached 3% at the end of the year.

MORTGAGE FUNDING

The main source of funding for banks remained client deposits, which dominate the liability side of the banking sector.

Another possible source is covered bonds which are regulated in the Bond Act. There are banks on the market that use this tool regularly, others less often or as yet not at all. Overall, covered bondsrepresented less than ¼ of total funding in 2018.

	CZECH REPUBLIC 2017	CZECH REPUBLIC 2018	EU 28 2018
Real GDP growth (%) (1)	4.4	3.0	2.0
Unemployment Rate (LSF), annual average (%) (1)	2.9	2.2	6.8
HICP inflation (%) (1)	2.4	2.0	1.9
Outstanding Residential Loans (mn EUR) (2)	40,542	43,983	7,251,189
Outstanding Residential Loans per capita over 18 (EUR) (2)	4,683	5,078	17,404
Outstanding Residential Loans to disposable income ratio (%) (2)	40.9	40.2	77.2*
Gross residential lending, annual growth (%) (2)	6.6	-2.3	2.34
Typical mortgage rate, annual average (%) (2)	2.2	2.6	2.5**
Owner occupation rate (%) (1)	78.5	78.7	69.3*
Nominal house price growth (%) (2)	4.8	9.8	6.3

* The aggregate EU figure is from 2017.
** Please note that this value is the simple average of the typical interest rate of the EU 28 countries.

Sources:
(1) Eurostat
(2) European Mortgage Federation - Hypostat 2019, Statistical Tables.

CZECH REPUBLIC FACT TABLE

Entities which can issue mortgage loans:	In the Czech Republic, housing finance is mainly raised by banks, but in some cases also by credit unions.
The market share of the mortgage issuances:	Banks represent almost 100% of the mortgage market.
Proportion of outstanding mortgage loans of the mortgage issuances:	There are three retail banks, namely, Hypotečni banka, Česká spořitelna and Komerčni banka which together hold more than ¾ of the mortgage loans outstanding volume in the Czech Republic.
Typical LTV ratio on residential mortgage loans:	One of the recommendations of the Czech National Bank sets the maximum LTV on 90% and established that the share of mortgages with LTV over 80% should not exceed 15% of the total volume of new loans granted each quarter. The market follows these recommendations and, therefore, the typical mortgage is provided with LTV up to 80%.
Any distinction made between residential and non-residential loans:	More than ¾ of the housing loans were provided for residential purposes.
Most common mortgage product(s):	The most common mortgage loan is the loan for house/flat purchase secured by financed property with interest rate fixation period 5–8 years and maturity 20–30 years.
Typical maturity of a mortgage:	Typical mortgage loans have maturity from 20 to 30 years. And the recommendation of the Czech National Bank is not to provide loans with maturity exceeding 30 years.
Most common way to fund mortgage lending:	Combination of deposits and covered bonds.
Level of costs associated with a house purchase:	Taxes and fees when buying/selling a property in the Czech Republic are the following: 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) A real estate agency fee (about 3%).
The level (if any) of government subsidies for house purchases:	Under the current landscape of low interest rates and generally positive macroeconomic development, a limited amount of subsidies is available: • for young families up to age of 36 years or individual persons up to 36 years with at least one child under 15 years of age, a subsidy in form of loan granted under advantageous conditions (advantageous interest rate) with maturity up to 20 years: 1. for flat purchase in size up to CZK 1,200,000 (EUR 47,000); 2. for house purchase or construction in size up to CZK 2,000,000 (EUR 78,500); 3. for reconstruction of flat in size up to CZK 300,000 (EUR 11,750). • 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.

Denmark

By Jakob Kongsgaard Olsson, Finance Denmark

MACROECONOMIC OVERVIEW

The Danish economy grew in real terms by 1.5% in 2018, which is somewhat slower than the previous years. However, real GDP in 2017 was influenced by a technical matter[1]. Excluding this, real GDP growth in 2018 was1.8% higher. Economic growth is broadly in line with potential according to the EU Commission estimations. The GDP growth was mainly driven by a private consumption growth of 2.3% and real gross total fixed capital formation growth of 5.1%, including a rise in gross residential fixed capital formation of 4.8%. Total exports rose by 0.6% of which export of goods rose by 3.0%.

Factors driving private consumption include employment and real wage growth, which performed well in 2018. The labour market continued to perform well with an increase of 1.8% in employment in 2018 resulting in an employment rate of 75.4%. Unemployment decreased from 5.7% to 5.0% (Eurostat Unemployment Rates). Real wages continued to improve as compensation per employee outpaced consumer price increases by 1.3%. Unit labor costs rose by 2.4%, while consumer prices increased by 0.7% in 2018.

Public consumption rose by 0.8%. The Danish government recorded a budget surplus of 0.5% of GDP for the year. Meanwhile, gross public debt was 34.1% of GDP, which is low in a European context. Denmark ran a current account surplus of 6.1% of GDP.

The deposit rate at the Danish Central Bank, Danmarks Nationalbank, remained at -0.65% throughout the year.

HOUSING AND MORTGAGE MARKETS

HOUSING MARKETS

The Danish housing market is characterised by a relatively low owner-occupation rate, which is even lower in the largest cities of the country. In general, the ownership structure of housing in Denmark is diversified and is besides owner-occupied housing composed of cooperative housing, public housing and rental. The owner occupation rate was 52.5% by the end of 2018. This marked a decrease of 0.3 pps over the year.

Domestic nominal house prices increased by 4.6% (y-o-y) in 2018, roughly the same growth rate recorded for the previous year. Not only house prices, but also prices on owner occupied flats have been rising for several years. House price increases are now prevalent across the country. The current increasing trend started in the bigger cities and it has spread from there. Prices on owner-occupied flats and detached and terraced houses in the Copenhagen area were 5.3% and 6.8% higher in 2018 compared to the previous year. The development partly reflects that prices on owner-occupied flats have stagnated in the second half of 2018. This should be seen in relation to an increased number of owner-occupied flats for sale. This is at least partly due to more newly built owner-occupied flats being offered on the market. Construction activity has gained momentum after a period of subdued activity since the financial crisis. Building upon a big leap in completed construction in 2016, momentum carried on into 2017 and 2018.

The number of transactions involving detached and terraced houses was down by 1.0% in 2018, and 7.0% fewer owner-occupied flats were sold. The fall however came from a high level.

MORTGAGE MARKETS

By year end 2018, outstanding mortgage loans from mortgage banks amounted to DKK 2,740 bn, of which app. DKK 1,600 bn were for owner occupied housing. On top of this, housing loans for households from commercial retail banks amounted to DKK 283 bn. In total, mortgage credit growth was recorded at 1.7% in 2018. In light of recent years' house price increases, mortgage credit growth remained modest.

Mortgage lending activity in 2018 has repeated previous years' developments. Fixed rate mortgages have gained market share while especially the share of variable rate mortgages has decreased. Outstanding mortgage loans issued by mortgage banks are split between fixed rate mortgages (36.0% by year end 2018), adjustable rate mortgages with an interest rate cap (2.9 % by year end 2018), interest reset mortgages with interest reset under 1 year (33.8% by year end 2018) and interest reset mortgages with interest reset intervals above 1 year (30.2% by year end 2018).

Gross lending activity by mortgage banks decreased slightly since 2017, but remains on an average level from an historic perspective. All in all, total gross lending reached DKK 472.7 bn. Residential mortgages counted for 61.6% of gross lending which is slightly more than in 2017. Fixed rate mortgages (typically fixed for 30 years) accounted for 56.7% of gross lending in 2018, an increase of 7 pps compared to 2017. Adjustable rate mortgages and interest reset mortgages accounted for 42.8%, and adjustable rate mortgages with an interest rate cap accounted for 0.4% of gross lending in 2018. The popularity of fixed rate mortgages has remained high as the majority of new mortgages are issued with a fixed interest rate. Furthermore, movements within the interest reset segment continued in 2018 with borrowers in general favoring interest rate reset mortgages with longer fixations and variable rate loans over interest reset mortgages with yearly interest rate fixations.

There are several potential reasons for this development. One reason that stands out is the industry's own measures which included 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. Additionally, a significant piece of legislation came into force at the beginning of 2018. On 1 January 2018 a tightening of existing consumer protection legislation took effect. The new stricter requirements were a direct consequence of the recommendations from the Danish

[1] A single significant sale of a patent in 2017 has given a negative base effect for the 2018 growth.

Financial Stability Board from March 2017, stating that households with large loan exposures should be limited to loans with longer rate fixation combined with an amortisation requirement. The new requirement states that borrowers with a DTI above 4 in combination with an LTV above 60% should have at least 5 years interest rate fixation on their mortgages, and 30 years fixation if they wish to pay interest only.

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 2018 the interest rate on a 30 year fixed rate mortgage remained at the very low level of previous years, 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 2018. 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 0.81% in 2018 and 30 years fixed rate mortgages were issued with a 2% coupon during the year.

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 borrowers' demand. Bonds are tapped and bullet bonds behind interest reset loans are refinanced by month end in March, June, September and December. December remains traditionally 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 December 2018, the shortest bullet bonds (1 year maturity) were sold and resulted on an interest rate on the bonds of -0.43%, compared to -0.54% a year earlier. Over the course of 2018, long-term callable bonds, which funded the fixed rate mortgages, were issued with a coupon of 2% matching the rate on the loans.

	DENMARK 2017	DENMARK 2018	EU 28 2018
Real GDP growth (%) (1)	2.3	1.5	2.0
Unemployment Rate (LSF). annual average (%) (1)	5.7	5.0	6.8
HICP inflation (%) (1)	1.1	0.7	1.9
Outstanding Residential Loans (mn EUR) (2)	248,776	251,705	7,251,189
Outstanding Residential Loans per capita over 18 (EUR) (2)	54,311	54,532	17,404
Outstanding Residential Loans to disposable income ratio (%) (2)	172.4	167.2	77.2*
Gross residential lending. annual growth (%) (2)	0.3	-3.8	2.34
Typical mortgage rate. annual average (%) (2)	1.0	0.8	2.5**
Owner occupation rate (%) (1)	62.4	60.5	69.3*
Nominal house price growth (%) (2)	4.5	4.1	6.3

* The aggregate EU figure is from 2017.
** Please note that this value is the simple average of the typical interest rate of the EU 28 countries.

Sources:
(1) Eurostat
(2) European Mortgage Federation - Hypostat 2019. 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 owner-occupied housing) has been the following: • Retail banks 15% • Mortgage banks 85%
Typical LTV ratio on residential mortgage loans:	For new loans for owner-occupied housing the LTV will normally be up to 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: Approximately DKK 17,000 (EUR 2,280); • Costs going to the Mortgage bank: Approximately DKK 10,000 (EUR 1,340).
The level (if any) of government subsidies for house purchases:	The government doesn't have any role in house purchases.

Estonia

By Sofía Garrido Pérez, European Mortgage Federation-European Covered Bond Council

IN A NUTSHELL

→ Positive macroeconomic context, with significant GDP growth of 3.9%.
→ Construction in 2018 was the main contributor to the GDP increase.
→ Housing and mortgage markets continued to grow, with outstanding housing loans increasing by 7% on a yearly basis.
→ House prices grew at a slower pace than in the previous year.
→ Despite the fact that deposits continued to be the main funding tool of the market, new funding sources such as covered bonds are currently being studied.

MACROECONOMIC OVERVIEW

In 2018 the Estonian economy slightly underperformed compared to the previous year. Nevertheless, Estonian GDP still grew at a very remarkable pace, by 3.9% y-o-y, well above the EU average. The main contributors to this GDP increase were, firstly, construction which experienced significant growth of 18.6% during 2018, recovering 2011 figures but still under pre-crisis levels. Secondly, the value added of manufacturing also showed a significant growth of 5.3% during 2018. Likewise import and export activities also depicted a positive evolution, with net exports reaching EUR 904 mn in 2018, representing 3.5% of GDP. And finally, scientific and technical activities also contributed significantly to the positive evolution of GDP. In this context, the only important negative impact on economic growth was due to the decrease of agriculture, forestry and fishing activities.

Consumption of households increased by 4.6% in 2018, helping domestic demand to achieve the best result since 2007.

Together with the growth of domestic demand a further decrease of unemployment was experienced, reaching a level of 5.4%, therefore, below the European average. More importantly, long-term unemployment reached low levels that have not been seen since 2008. Moreover, the number of persons employed was surpassed by GDP growth and consequently productivity per person employed grew by 2.6%. At the same time, productivity per hour increased due mainly to the decrease in the number of hours worked in the economy.

As regard prices, the HICP recorded a level of 3.4% in 2018, maintaining the growth of 2017. This increase in prices was mainly driven by housing, since it contributed with a quarter of the total increase. The biggest contributors to this rise were electricity, solid fuels and rentals, which increased 10.9%, 15.3% and 7% respectively.

More broadly and focusing on government accounts, in 2018 the Estonian government maintained a deficit of 0.5%, a deficit mainly resulting from the expenditure of the central government, since the local governments ended the year with a remarkable surplus. In this context, the gross debt level was 8% of GDP, in which the share of foreign debt was 54%.

Overall, the evolution of the Estonian economy in 2018 was positive, with significant GDP growth, and decreasing unemployment in a context of relatively low debt levels and moderate price evolution.

HOUSING AND MORTGAGE MARKETS

HOUSING MARKET

The Estonian housing market continued to perform well in 2018.

The Estonian housing market maintained its strong momentum largely as a result of general positive economic developments and the low interest rates. Supply as well as demand continued to increase, consequently the housing market in Estonia continued to grow, as evidenced by the the third consecutive year of expansion of the construction market.

At the end of 2018, Estonia had 718,600 dwellings with an occupation rate of almost 76%. Looking at the type of construction of these buildings, 99.1% of them were conventional dwellings and other housing units, and the remaining 0.9% were collective buildings.

On the supply side, the construction volume increased by 21% on a yearly basis, marking the seventh consecutive year of positive evolution. The number of completed dwellings was 6,472 units which translates into growth of almost 10% y-o-y. However, the number of permits issued in 2018 slightly decreased compared to the previous year. Finally, the number of transactions also rose reaching 59,303 in the residential housing market in 2018. Despite transactions rising by 9% in the country, they decreased by 1% in the capital, Tallin.

Following the general trend and the development of the market, the price of dwellings also grew, however at a lower pace than in previous years. On a yearly basis the price of apartments increased by 5.7% and the price of houses by 5.6%. Therefore, the overall house price index rose by 6.2%. If we look at the different regions, we observe that apartment prices grew by 6.6% in Tallin, by 7.3% in the surroundings of the capital including the cities of Tartu and Parnu, and by 3.6% in the rest of the country. These price increases were mainly due to the low interest rate environment, rising income levels and the attractiveness of the market for investors.

Moving briefly to the rental market, rent prices rose by 5% on average. A smaller increase than the one experienced in relation to properties for purchase due to the higher offer.

MORTGAGE MARKETS

In a well-balanced macroeconomic environment, with a developing housing market, the Estonian mortgage market has also performed positively. In 2018 the mortgage market grew, with an increase of 7% of the volume of total outstanding residential loans which at the end of the year amounted to EUR 7,603. This amount of housing loans represented 30.8% of GDP in 2018. Likewise, gross residential lending grew by 9.05%.

The mortgage market consists mainly of commercial banks, with the three most important in terms of market share as follows, Swedbank, SEB Bank and Luminor Bank. In their portfolios in aggregate terms housing loans account for approx. 40% of the loans to the non-financial sector, a figure that is above the EU average. The importance and volume of this type of loan reflects the preference of households for homeownership over renting as well as the concentration of the domestic market.

The average interest rate payed by households on these loans has increased with respect to the previous year and reached an average value of 2.59%. In a more disaggregate analysis we observe that during the last quarter of the year loans up to 1 year had an average interest rate of 2.85% (an increase of almost 1pp), for loans with maturity from 1 to 5 years it was 5.85% (0.61 pps), and finally for loans with a maturity of more than 5 years the average interest rate stood at 1.85% (0.12 pps). In the mortgage market the amount of gross lending with a variable interest rate granted in 2018 was just 6% of the total market, reflecting the preference of consumers for loans with a fixed interest rate. The increase in interest rates for house loans was mainly due to less competition that characterised the banking system as well as the results of assessments by banks of the riskiness of individuals.

Regarding LTVs, in Estonia borrowers can ask up to 85% of the value of the property, however, if they qualify for one of the government programmes, they can request an LTV up to 90%.

Overall, despite a small loss of momentum of the housing and mortgage markets in 2018 with respect to 2017, both kept growing at a gentle pace.

NON-MARKET LED INITIATIVES

In the mortgage landscape some of the non-market led initiatives are focused on promoting house affordability. In Estonia there is no general rent control that affects all apartments, however, some of these apartments are properties owned by the local government which benefit from a subsidy. Apart from the rent subsidy, the government has just implemented a programme to provide funding for the construction of apartments that will be subject to rent control.

MORTGAGE FUNDING

The lending policy of banks for housing loans did not change particularly in 2018. The most important source of funds for the Estonian banking sector continues to be deposits. As deposits have grown strongly in recent years, they have been sufficient to finance the demand for credit. Nevertheless, the country started analysing other options available for funding mortgage markets, such as covered bonds and is actually working closely with Latvia and Lithuania with a view to introducing a Pan-Baltic covered bond framework, according to which the three markets combined will achieve a critical mass. In this sense, Estonia is the most advanced of the three since as of 13 February the legislation on covered bonds has been adopted by the Parliament.

	ESTONIA 2017	ESTONIA 2018	EU 28 2018
Real GDP growth (%) (1)	4.9	3.9	2.0
Unemployment Rate (LSF), annual average (%) (1)	5.8	5.4	6.8
HICP inflation (%) (1)	3.7	3.4	1.9
Outstanding Residential Loans (mn EUR) (2)	7,107	7,603	7,251,189
Outstanding Residential Loans per capita over 18 (EUR) (2)	6,668	7,125	17,404
Outstanding Residential Loans to disposable income ratio (%) (2)	54.8	54.5	77.2*
Gross residential lending, annual growth (%) (2)	16.2	9.0	2.34
Typical mortgage rate, annual average (%) (2)	2.3	2.6	2.5**
Owner occupation rate (%) (1)	81.8	82.4	69.3*
Nominal house price growth (%) (2)	5.4	6.2	6.3

* The aggregate EU figure is from 2017.
** Please note that this value is the simple average of the typical interest rate of the EU 28 countries.

Sources:
(1) Eurostat
(2) European Mortgage Federation - Hypostat 2019, Statistical Tables.

ESTONIA FACT TABLE

Entities which can issue mortgage loans:	No limitation to issuers, financial and non-financial entities can offer loans, however, the small market in Estonia means that there have always been few suppliers of housing loans.
The market share of the mortgage issuances:	Mortgage market consists mainly of commercial banks. In this context, competition among them has been always weak, and this year LHV Pank has entered the housing loans market but Danske Bank has stopped lending and Luminor has chosen to relinquish part of his market share.
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 Erkkilä, Finance Finland

IN A NUTSHELL

- → Construction market cooling down.
- → Housing price levels fairly stable.
- → New macroprudential tools under consideration.

MACROECONOMIC OVERVIEW

The Finnish economy grew by 1.7% in 2018. As a result of this growth, the volume of gross domestic product exceeded the previous peak reached prior to the financial crisis in 2008. In the class of demand items, investments grew by 6.1% and exports by 5.5%. The biggest demand item, private consumption expenditure, grew by 2.7%.

Households consumption increased as the level of employment rose to 72.5% and wages and salaries grew by 4.6%. Households' savings ratio turned positive (0.6%) after being negative for many years.

In the strengthened economy, general government deficit continued to decrease. The general government's financial position recorded a deficit of 0.6% relative to GDP. The deficit was reduced particularly by growth in tax revenue.

HOUSING AND MORTGAGE MARKETS

HOUSING MARKET

The majority of Finns, 72%, live in owner-occupied homes, which are financed by a housing loan in more than half of cases. Around one third of households (28%) rent their houses, 14.8% of them paying reduced prices (living in government subsided houses) and 13.6% renting from free markets. The average size of an outstanding mortgage was EUR 98,735. The average size for a new mortgage was EUR 150,400 in the whole country and EUR 181,400 in greater Helsinki region and EUR 139,000 in the rest of the country. A typical maturity for a new housing loan was 25 years and an average maturity was 20.1 years.

The housing market cooled down slightly. The number of new housing permits has entered a decreasing trend, which reflected the cooling down of the construction market. However, the previous years' large number of housing starts will keep the number of completed houses on a high level for a while.

New housing starts peaked to 45,676 units, representing a 3.2% increase y-o-y. Housing starts experienced their highest level in 25 years. Housing completions saw an increase of 20.3% in the same period. However, the number of buildings permits issued dropped to 41,137 units, which is 14.9% less than previous year. It is expected that the levels will come down to more moderate levels from the previous peak years.

Strong polarisation continued in the housing market. Big cities were more attractive, especially for young people, than the rural areas and this urbanisation reflected to housing prices. Also, immigration was mainly received by the biggest cities. In Helsinki metropolitan area, prices went up by 2.7% y-o-y, while in the rest of Finland they went down by 0.3%. In the whole country prices increased by 1.2% on annual basis. In many rural areas the housing market was at a standstill and the transactions were almost non-existent.

At the end of 2018, the average price per square meter for existing dwellings was EUR 2,075 on average in the whole country, EUR 3,659 in Helsinki metropolitan area and EUR 1,605 elsewhere in Finland.

MORTGAGE MARKET

Market dynamics

New housing loans were taken out for 2.2% more than the previous year. At the end of 2018, the total housing loan portfolio stood at EUR 97.8 bn (41.9% of GDP) after growing by 1.7% during the year.

Repayments on housing loans were made for a total of EUR 16.8 bn in 2018. Amortisations grew by 5.1% y-o-y. Housing loans have been amortised at a faster rate than in previous years, because low interest rates have enabled a larger proportion of principal in the instalments of constant payment loans – which made up about 40% of Finnish households' housing loans, according to the Bank of Finland.

Compared with the rest of Europe, Finland has a particularly high proportion of variable interest rate residential mortgage loans. As much as 96% of the new loans are linked to Euribor, most often to the 12-month Euribor rate. 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 0.86% at the end of the year, which is an all-time low.

Households' debt-to-income ratio rose, and it was 127% at the end of the year. A figure sufficiently low compared to other Nordic countries, but above the average in the EU. Therefore, discussions about household indebtedness continued and new macroprudential tools were being considered. Despite the fact that the growth rate of debt is moderate, the overall level of debt is what worries the authorities.

FIN-FSA decided that credit institutions which use their own internal ratings-based (IRB) approaches for credit risk would be set a minimum level for the average risk weight on their mortgage portfolios. The 15% floor came into effect on 1 January 2018.

The loan cap (loan-to-collateral) tool has been in force since July 2016. At first, the maximum LTC ratio for residential mortgage loans taken out for first-home purchases was 95% and 90% for others. After that, FSA decided to tighten the rules and despite the first-time buyer's cap remained the same, for others it was lowered to 85%. This decision entered into force on 1 July 2018.

Furthermore, systemic risk buffer was prepared and will take effect on 1 July 2019 and will be reviewed annually in the future. Systemic risk buffer is targeting long-term, non-cyclical risks to the financial system. Indicators include household indebtedness among others. According to FSAs assessment, Finland's credit institutions sector is concentrated and, after the transfer of Nordea's domicile, also extremely large compared with the size of the economy as well as strongly interconnected with the financial systems of the other Nordic countries. The buffer will be imposed at a level of 1.0% on smaller institutions and between 1.5-3.0% on larger banks.

Non-performing loans remained on a low level and comprised 1.6% of total loans.

MORTGAGE FUNDING

Although deposits from households are the largest single source of funding for domestic banks, the sector's funding can be said to be heavily dependent on market funding as well.

Market-based funding accounted for 57% of the total funding after Nordea's domicile to Finland. However, the dispersion is high between credit institutions since some fund their operations almost entirely with deposits, while others, especially mortgage credit institutions, only issue covered bonds. The ratio of loans to deposits was 173% at the turn of the year, the same as a year earlier compared to the EU average of 118%.

Almost 40% of the Finnish mortgage loans are funded by covered bonds. The total amount of covered bond stock stood at EUR 37.3 bn at the end of 2018. New issuances were made at a total value of EUR 5.65 bn, slightly more than in previous years.

In Finland, there is no active RMBS market.

	FINLAND 2017	FINLAND 2018	EU 28 2018
Real GDP growth (%) (1)	2.8	1.7	2.0
Unemployment Rate (LSF). annual average (%) (1)	8.6	7.4	6.8
HICP inflation (%) (1)	0.8	1.2	1.9
Outstanding Residential Loans (mn EUR) (2)	96,129	97,781	7,251,189
Outstanding Residential Loans per capita over 18 (EUR) (2)	21,693	21,989	17,404
Outstanding Residential Loans to disposable income ratio (%) (2)	74.2	72.4	77.2*
Gross residential lending. annual growth (%) (2)	5.0	9.6	2.34
Typical mortgage rate. annual average (%) (2)	1.0	0.9	2.5**
Owner occupation rate (%) (1)	71.4	71.6	69.3*
Nominal house price growth (%) (2)	1.1	1.0	6.3

* The aggregate EU figure is from 2017.
** Please note that this value is the simple average of the typical interest rate of the EU 28 countries.

Sources:
(1) Eurostat
(2) European Mortgage Federation - Hypostat 2019. Statistical Tables.

FINLAND FACT TABLE

Entities which can issue mortgage loans:	Credit institutions
The market share of the mortgage issuances:	Credit institutions 100 %
Proportion of outstanding mortgage loans of the mortgage issuances:	Banking groups hold 100% of the housing loan stock (Banking groups include mortgage banks as subsidiaries).
Typical LTV ratio on residential mortgage loans:	Loan-to-Collateral (LTC): First time buyers 80% (median, new loans) others 60% (median, new loans).
Any distinction made between residential and non-residential loans:	Not available
Most common mortgage product(s):	Housing loan
Typical maturity of a mortgage:	25 years
Most common way to fund mortgage lending:	Deposits and 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 tax. Interest expenses on housing loans are tax deductible up to 35% (in 2018).

France

By Patrick Stocker, Féderation Nationale du Crédit Agricole

IN A NUTSHELL

- → Decrease of economic growth in France like in other European countries;
- → Context of important reforms and social tensions;
- → Record level of transactions on existing properties and high level of new constructions;
- → Key role of low interest rates for the housing market;
- → Mortgage market remained dynamic and safe (low NPL).

KEY ECONOMIC INDICATORS

In France, GDP grew by 1.7% in 2018, a figure lower than the one recorded the previous year when French GDP grew by 2.3% on a yearly basis. This growth was due mainly to the positive contribution of investments (+ 2.8%), which contributed more to the economy than household consumption (+0.9%).

Inflation accelerated with respect to previous years, but it remained low at 2.1%, and was mainly impacted by the cost of energy.

In this context, the unemployment rate remained high at 8.7% in 2018, but it continues to decrease slowly.

Finally, there were some difficulties to further reduce public deficit, and it stood at 2.5% of GDP.

HOUSING AND MORTGAGE MARKETS

HOUSING MARKET

The government is giving a new orientation to its housing policy, after cutting some of its subsidies in the financial law for 2019, through the so-called law ELAN (Evolution du Logement de l'Aménagement et du Numérique). The law has had several different effects and areas of application as follows:

- In the Social housing sector: the government cut several subsidies and promoted mergers among social housing entities (HLM), seeking to achieve efficiency and productivity by allowing the emergence of larger groups. However, it maintained the objectives in terms of construction and renovation;
- The law also eased regulations to facilitate construction and access to land (supporting innovation in order to accelerate the construction process, limiting excessive litigation on building permits…);
- The budget relocated public support to the renovation of small and medium size cities ("Action Coeur de Ville");
- Finally, in the context of COP 21, ambitious objectives for renovation of existing properties (500,000 per year) were confirmed, the action plan is still under discussion.

A market flirting with historic records

Supported by the continuation of attractive interest rates, the housing market continued to post record levels in 2018. Globally, the new building sector remained at a very high level, however, a slowdown on the number of housing starts (418,000 vs 437,000) and building permits issued (455,000 in 2018 versus 490,000 in 2017) was recorded. In this context, several contrasting evolutions are worth noting:

- Social housing was affected by government measures and resulted in the adoption of a "wait and see" attitude.
- Individual house builders (120,000, -11% in 2018 compared to 2017, very far from the historic levels of 2006-2007 at 190,000) were affected by cuts in the 0% interest rate loans.
- The real estate developer market remained dynamic (128,000 sales, -2% compared to 2017) and well above the historic trend. The sector remained solid with a very low number of unsold properties, most of them unfinished. Construction in some areas was especially dynamic (Paris, Bordeaux, Rennes…). The fact that supply outstripped demand explains their mitigated results.

A new record of transactions was registered in the existing home market (970,000 in 2018), comparable to that of 2017 (968,000). Prices grew by 2.8% in the greater Paris area, but by 4.2% in Paris and 5.7% in Paris inter-muros. Some cities had equal or higher price increases than Paris revealing tension in attractive areas.

A limited return for institutional investors was observed, especially in specialised segments such as intermediate housing (thanks to a public scheme) or senior residences. Investors were looking for secured investments and a better return on investment than public bonds would have given them.

MORTGAGE MARKET

2018 was another good year for the distribution of housing loans, thanks mainly to interest rates that remained low throughout the year (1.48% fixed). These low interest rates could be explained by low market rates as well as by fierce competition between banks.

Credit institutions maintained accommodative financing conditions by allowing longer reimbursement periods (new record, up to 19 years) and even higher LTVs.

These positive elements counter-balanced the negative effects of cuts in public support (notably restrictions on the 0% loan and on the fiscal scheme for buy-to-let private investors) and the difficult social climate.

The rapid growth of housing loans (more than 5%) has triggered concerns from French bank regulators therefore two "buffers" of equity were added.

However, the quality of lending is still considered solid, with low levels of NPL and decreasing over-indebtedness. Borrowers in almost all cases are protected by insurance covering accidents and health problems; interest rates are fixed throughout the duration of the loan in over 99% of the cases.

A large part of the housing loan portfolio (66%) is guaranteed by insurance companies or specialised financial companies (for which no mortgage is registered) which reinforces the security of the lender.

In terms of distribution, banks are heavily investing in digitalisation to allow a 100% on-line process from before sale to offer. The electronic signature of housing loans is becoming a standard. New players, (digital banks) have entered the market, with a limited effect for the time being, but are reinforcing competition on simple files and up-market customers.

MORTGAGE FUNDING

As house loans were mainly distributed by general banks, deposit-financed lending was still the norm in 2018.

The amount of global outstanding deposits of residents (households and companies) reached EUR 2,148.6 bn in March 2019 (+4.6 % in 2018) while sight deposits accounted for EUR 967 bn in March 2019 (+7.3% in 2018).

However, more diversified resources were used. Issuance of covered bonds for housing loans remained stable (EUR 28.3 bn in 2018 vs 27.9 in 2017) and they financed about 20% of the housing loan portfolio.

The development of different forms of securitisation of housing loans was also observed.

	FRANCE 2017	FRANCE 2018	EU 28 2018
Real GDP growth (%) (1)	2.3	1.7	2.0
Unemployment Rate (LSF), annual average (%) (1)	9.4	9.1	6.8
HICP inflation (%) (1)	1.2	2.1	1.9
Outstanding Residential Loans (mn EUR) (2)	954,226	1,009,562	7,251,189
Outstanding Residential Loans per capita over 18 (EUR) (2)	18,289	19,312	17,404
Outstanding Residential Loans to disposable income ratio (%) (2)	66.3	68.5	77.2*
Gross residential lending, annual growth (%) (2)	13.9	-1.5	2.34
Typical mortgage rate, annual average (%) (2)	1.5	1.5	2.5**
Owner occupation rate (%) (1)	64.4	n/a	69.3*
Nominal house price growth (%) (2)	3.3	3.2	6.3

* The aggregate EU figure is from 2017.
** Please note that this value is the simple average of the typical interest rate of the EU 28 countries.

Sources:
(1) Eurostat
(2) European Mortgage Federation - Hypostat 2019, Statistical Tables.

FRANCE FACT TABLE

Entities which can issue mortgage loans:	Today, about 380 credit institutions (including banks, mutual banks, municipal credit banks and special credit institutions) are approved by the French supervisory authority (ACPR), and listed in the register of financial officers (REGAFI).
The market share of the mortgage issuances:	The three main categories of credit institutions, involved in property lending, are in France: • Private banks, whose market share decreased in 2018 (35 vs 36.8% in 2017); • Mutual and cooperative banks, with an increasing market share (60.7% vs 58.0% in 2017); • Specialised institutions with a lower market share (4.3 vs 5.2% in 2017).
Proportion of outstanding mortgage loans of the mortgage issuances:	Six 6 groups and their subsidiaries (3 Mutual, 1 Public and 2 Private) represent most of the lending. Digital lending (Tel and Internet) is emerging with new players, but with still a limited market share.
Typical LTV ratio on residential mortgage loans:	In 2018, the LTV ratio was 87.3% up from 87% in 2017 of the average cost of the operation.
Any distinction made between residential and non-residential loans:	French banking regulation 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 common product is a fixed-rate over the total duration of the loan. In 2018, over 98% of the new credits were fixed-rate loans. 58% of loans are not with a registered mortgage, but an insurance or a collateral by a specialised financial institution.
Typical maturity of a mortgage:	In 2018, the average term of real estate loans was 19.9 years up from the year before (19 years).
Most common way to fund mortgage lending:	Traditionally, the main sources of funding real estate lending in France are the households' and companies' deposits (even term deposits or on book ones) and bonds.
Level of costs associated with a house purchase:	In France, the purchase costs depend on the new or existing nature of the purchased house: • Existing properties: 7% for transfer duties and 4-5% for real estate agencies • New properties: 2% for a new house (transfer duties only), plus VAT (20% except for social sales 5.5% and for some intermediate sales 10%).
The level (if any) of government subsidies for house purchases:	As regards new housing, 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 40% 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. Several other schemes exist to support low income buyer (PSLA: renting with option to buy or a new form of community land and trust). Several incentives have been eliminated (APL, Epargne Logement) and the Zero percent loans has been significantly reduced.

Germany

By Thomas Hofer, vdpResearch

IN A NUTSHELL

- → German economy growth has cooled slightly in 2018, but macroeconomic conditions for the property market remained positive.
- → Growing wages, higher employment and favourable financing conditions mean that investment in housing remains attractive for private households.
- → Gross residential lending and the volume of mortgage loans outstanding followed a steady upward trend.
- → In 2018 a grant scheme to support families building or purchasing homes for their own use has been introduced.

MACROECONOMIC OVERVIEW

In 2018, the German economy performed below expectations. Exceptional factors in the automotive industry and upcoming foreign trade restrictions caused economic growth to lose momentum. Over the year as a whole, real gross domestic product (GDP) rose by 1.4% in 2018, following a gain of more than 2% in each of the previous two years. Nevertheless, there were some positive trends: employment rose strongly again over the last years and unemployment fell to its lowest level since 1989 reaching 3.4% in 2018 following 3.8% in 2017. Consumer price inflation picked up pace in 2017 and recorded a further increase in 2018 (1.8%) reaching nearly the ECB target of 2%.

In 2019, the economy will probably stabilise at onward lower GDP growth rate, without returning to the high momentum of previous years. The leading economic research institutes are forecasting that the real GDP will grow by 0.8% in 2019 and returning to a higher level of 1.8% in 2020.

HOUSING AND MORTGAGE MARKETS

HOUSING MARKETS

Prices of residential properties located in Germany grew significantly once more in 2018. The vdp property price index for single family houses rose by 8.2% and for condominiums by 5.8% on average in 2018. The index for owner occupied housing, which is based on these two indices, increased by 7.7%. The development in the major cities did not differ much from that of the whole country. In Germany's 7 largest cities (Berlin, Hamburg, Munich, Cologne, Frankfurt a. M., Stuttgart and Düsseldorf), prices for owner occupied housing (condominiums and single-family houses) increased by 8.0% compared with the previous year.

A total of 286,000 dwellings were completed in 2018. On the one hand this is the highest result since 2002, on the other hand, the construction completions were below expectations and only slightly higher than 2017. The slight growth was accompanied by structural shifts between new single-family houses and new multi-family houses. While completions of single-family houses declined slightly compared to the previous year (-2.8%), the number of completed apartments in multi-family houses increased significantly (+9.1%). The figure of 286,000 dwellings will probably be exceeded in 2019. Even though the building permits moved sideways, a substantial number of dwellings not yet started or already under construction. This means that the number of completed dwellings may increase in 2019. Once again, the new construction of multi-family houses may outstrip that of single-family houses. This is mainly attributable to the sustained demand for housing in the economically vibrant conurbations and the larger urban regions, where multi-family houses typically predominate. Particularly in the prosperous urban concentrations, where home-seeking is a time-consuming and nerve-wracking activity, even more new dwellings are needed in the short term. However, this requirement is actually limited by the high level of capacity utilisation in the construction sector (as reflected in the growing number of dwellings not yet started or already under construction), by a shortage of building plots and by rapidly increasing construction costs.

In contrast to the new construction of residential properties, sales figures for existing residential real estate have stagnated for many years. All in all, 569,000 single- and two-family houses, multi-family houses and condominiums changed owners in 2018. Compared to the previous year, the number of transactions remained virtually unchanged. By contrast, the sales volume associated with these transactions rose once again (+6.6% y-o-y) which was due to the aforementioned strong increase in property prices.

MORTGAGE MARKETS

The growth of construction and monetary turnover associated with transaction activities on the residential property market has been accompanied by increasing residential mortgage lending for several years. In 2018, gross residential lending rose again and amounted to EUR 227.8 bn (+6.3% y-o-y). The volume of residential loans outstanding summed up to EUR 1,446 bn, which corresponded to an increase of +4.9% in 2017.

Growth in residential property finance reflects the previously mentioned high demand for houses and apartments. The underlying conditions for home-buying continued to be favourable in recent years and are attributable, not least, to a consistently positive macroeconomic momentum combined with expansive ECB monetary policy since 2010. As mentioned above, the positive labour market situation leads to sustained positive households' income. In addition, financing conditions keep being more and more favourable. The interest rate (effective interest rate, average across all interest rate fixation periods) for loans for house purchase fell – with short interruptions – from 4.5% at the beginning of 2009 to 1.8% in mid-2015. Since then, interest rates for loans for house purchase have ranged between 1.6% and 2.0%. In 2018, the average interest rate for a residential mortgage loan was 1.9%.

From 2009 onward, the year in which the financial crisis struck, housing prices in Germany have climbed continuously. And up until 2014, this trend was accompanied by an almost equally strong increase in household disposable income. However, residential property prices have surged at a stronger pace than before over the last four years. Between 2014 and 2018, house prices rose faster than households' income.

Against the backdrop of falling interest rates, this had no negative impact on the affordability of residential real estate for a long time. However, as real estate prices continue to rise and no further relief is expected from falling interest rates, affordability has deteriorated a little.

In order to support families with children in acquiring owner occupied residential property, the so-called "Baukindergeld" (construction child benefit) was introduced in 2018. With the construction child benefit the government promotes families with children who want to buy an owner occupied house or a condominium with EUR 12,000 per child, disbursed in 10 annual instalments of EUR 1,200 each. In order to receive the promotion, certain conditions must be met: the children living in the household are under the age of 18, the household income is a maximum of EUR 90,000 per year for one child plus EUR 15,000 for each additional child, the purchase contract or the building permit has been signed or received on 01.01.2018 at the earliest and the new home is the only residential property on the cut-off date. The program follows the former Home Ownership Allowance, which supported home ownership between 1995 and 2005.

Provided there are no major macroeconomic disruptions, the volume of investments in new housing construction can be expected to increase further this year. Construction work on existing buildings is also expected to increase. In the market for existing properties, the volume of transactions is also likely to rise due to further price increases, meaning that a further increase in the residential property financing business can also be expected in the near future. Initial interim results for 2019 confirm this assumption. This trend should not harbour any extraordinary uncertainties for the banks, provided that their financing practices continue to focus on security. Risk potential is also limited for buyers of residential properties, provided that they secure favourable financing terms over a period as long as possible.

MORTGAGE FUNDING

In Germany, the main funding instruments on the banking side are for housing loans savings deposits and mortgage bonds (Pfandbriefe). Germany has one of the largest covered bond markets in Europe, representing a significant share of the total market. The sub-sector of this market for mortgage bonds is also strong in Germany and in the total EU market.

In the year under review, Pfandbriefe totalling EUR 50 bn were brought to the market (in 2017 the figure was EUR 49 bn). Mortgage Pfandbriefe sales accounted for EUR 43 bn (EUR 37 bn in 2017), and Public Pfandbriefe worth EUR 7 bn were sold (EUR 12 bn in 2017).

The outstanding volume of Pfandbriefe increased to EUR 369 bn in 2018 (from 366 bn in 2017). Whereas the volume outstanding of Mortgage Pfandbriefe increased from EUR 215 bn in 2017 to EUR 234 bn in 2018, Public Pfandbriefe experienced a further decline from EUR 148 bn to EUR 133 bn. In 2018, Ship and Aircraft Pfandbriefe accounted for EUR 2 bn (EUR 3 bn in 2017).

	GERMANY 2017	GERMANY 2018	EU 28 2018
Real GDP growth (%) (1)	2.2	1.4	2.0
Unemployment Rate (LSF), annual average (%) (1)	3.8	3.4	6.8
HICP inflation (%) (1)	1.7	1.9	1.9
Outstanding Residential Loans (mn EUR) (2)	1,378,810	1,445,987	7,251,189
Outstanding Residential Loans per capita over 18 (EUR) (2)	19,968	20,879	17,404
Outstanding Residential Loans to disposable income ratio (%) (2)	67.6	68.5	77.2*
Gross residential lending, annual growth (%) (2)	2.3	6.3	2.34
Typical mortgage rate, annual average (%) (2)	1.8	1.9	2.5**
Owner occupation rate (%) (1)	51.4	n/a	69.3*
Nominal house price growth (%) (2)	5.8	7.7	6.3

* The aggregate EU figure is from 2017.
** Please note that this value is the simple average of the typical interest rate of the EU 28 countries.

Sources:
(1) Eurostat
(2) European Mortgage Federation - Hypostat 2019, 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:	78% (average for purchase of existing single family houses)
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 10-15 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:	In 2018 a grant scheme to support families building or purchasing homes for their own use has been introduced. With the so called "Baukindergeld" the government promotes families with children who want to buy a house or a condominium for their own use with EUR 12,000 per child, paid out in 10 annual instalments of 1,200 Euros each. In order to receive the promotion, certain conditions must be met: • There are children under the age of 18 living in the household, • The household income is a maximum of 90,000 euros per year for one child plus 15,000 euros for each additional child, • The purchase contract or the building permit has been signed or received on 01.01.2018 at the earliest, • The new home is the only residential property on the cut-off date. The program follows the Home Ownership Allowance, with which the government supported the creation of home ownership between 1995 and 2005. Besides that, 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

IN A NUTSHELL

→ Following stagnation in 2015-2016, GDP growth turned positive growing by 1.5% in 2017 and 1.9% in 2018 and recovery continued in Q1 2019 (1.3%, y-o-y). The strengthening of the recovery outlook of the Greek economy suggests that economic activity will further improve in 2019.

→ According to Bank of Greece property market indices, prices have started to recover ending a 9-year period of contraction; apartment prices increased by 1.6% in 2018, against a decrease of 1.0% in 2017. In the commercial property segment, the nominal prices of prime offices increased significantly by 7.0% in 2018, against an increase of 1.8% in 2017, whereas nominal prime retail prices increased by 4.3% in 2018, against an increase of 1.7% in 2017.

→ Housing loans continued to decline by 2.8% in 2018 and this trend remained slightly unchanged in the first quarter of 2019 (-2.9%).

MACROECONOMIC OVERVIEW

In 2017 GDP growth turned positive (1.5%) for the first time after two years of negative growth (marginal decreases in 2015: -0.4%; and 2016: -0.2%) and increased further in 2018 by 1.9% (Q1: 2.3%, Q2: 1.4%, Q3: 2.4% and Q4: 1.6%). Recovery continues, with GDP increasing by 1.3% y-o-y in Q1 2019 (seasonally adjusted data), albeit decelerating for two consecutive quarters. The contribution to the positive GDP growth in 2018 was mainly driven by exports of goods and services (8.7%) and private consumption (1.1%). Investment in construction had rebounded in 2016 relative to the previous year (29.2%), for the first time since 2007, recording though a marginal increase in 2017 (0.4%), before posting a negative growth rate of 18.4% in 2018. For the first quarter of 2019 an increase of 10.2% y-o-y was recorded. Unemployment decelerated further and stood at 19.3% on average in 2018 against 21.5% in 2017 and 23.5% in 2016, with the share of long-term unemployed (12 months and above) in total employment accounting for 70.4% in 2018 against 72.9% in 2017 and 72.0% in 2016.

According to provisional non-seasonally adjusted estimates published by ELSTAT, on the demand side, private consumption in 2018 increased marginally by 1.1% and gross fixed capital formation decreased by 12.2% mainly due to a significant fall in transport equipment and weapon systems and other construction. Public consumption decreased by 2.5%, at an accelerating pace with respect to the previous year (2017: -0.4%, revised data). On the supply side, gross value added (at basic and constant prices), which had been declining continuously in the previous years, turned positive in 2017 and increased significantly by 2.0% and in 2018 by 1.8%. On the income side (GDP at current prices) in 2018, compensation of employees increased by 3.6% accelerating with respect to the previous year (2017: 2.3%).

According to ELSTAT's Labour Force Survey (LFS), employment increased by 2.0% in 2018, against 2.2% in 2017. Nevertheless, unemployment remained high at 19.3% in 2018 against 21.5% in 2017, still the highest in EU-28. At the same time, the long-term unemployment rate dropped to 13.6% in 2018 (2017: 15.6%), with the majority of unemployed being women. Along with the decrease in unemployment, youth unemployment rate (aged 20-29 years old) continued its downward trend and stood at 31.6% in 2018 (2017: 34.7% and 2016: 37.7%).

Inflation (HICP) remained in positive territory in 2018 and stood at 0.8% from 1.1% in 2017 and 0.0% in 2016, mainly due to price increases in tourist-related services, in tobacco and in crude oil prices. In April 2018, the inflation value posted a slight increase of 1.1% y-o-y. For 2019, overall inflation is expected to increase at a lower rate compared with that registered in 2018. Core inflation (HICP excluding energy and unprocessed food) was in negative territory since September 2012 up to May 2015 and since then increased only marginally to 0.1% in 2015 and 0.7% in 2016 and remained stable at 0.6% and 0.5% in 2017 and 2018 (in April 2019 stood at 0.7%, y-o-y). The GDP deflator increased by 0.5% in 2018 (0.8% y-o-y in Q1 2019) mainly reflecting an increase in unit labour cost as a result of a rise in compensation per employee.

New ministerial decisions in 2018 brought changes in capital controls. Most importantly, cash withdrawals from banks in Greece were fully liberalised, as well as the opening of new accounts. Cash withdrawals from banks abroad, including from credit and prepaid cards, remain subject to a ceiling of EUR 5,000 per month. Similarly the limit for transfers of funds abroad by credit and payment institutions increased (from EUR 1,000 per month to EUR 4,000 over two months), as well as the limit for transfers of cash when traveling abroad (from EUR 2,000 to EUR 10,000 per travel). Transfer (up to EUR 100,000 from previous limit of EUR 20,000 per day) of funds abroad, by companies for business purposes via banks' branches. Finally, it is allowed to transfer abroad amounts, stemming from profits and dividends on investments undertaken with funds coming from outside the country.

The primary fiscal balance as a percentage of GDP has improved by more than 14 pp since the beginning of the sovereign debt crisis. The 2018 primary fiscal outcome (enhanced surveillance definition) recorded a surplus of 4.3% of GDP, outperforming significantly the target of 3.5% of GDP. The improvement compared to the target reflects primarily under execution of government investment and intermediate consumption.

On 20 August 2018, Greece officially concluded its three-year ESM financial assistance programme. The gradual restoration of confidence that was observed in last two years (2017 and 2018) as well as in the recent months of 2019 suggests that economic activity will improve in the second half of 2019. Moreover, according to Bank of Greece estimates, real GDP is expected to be stabilised to its positive trend at 1.9%, mainly driven by the expected evolving recovery of exports, private consumption as well as the rebound of investment. Downside risks, however, include a possible sharp correction in global financial markets which will increase the cost and availability of funding, delays in reforms

[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.

and privatisations which could affect confidence and investment as well as implications of the recently announced expansionary fiscal package for the budget outcome in 2019.

HOUSING AND MORTGAGE MARKETS

HOUSING MARKETS

The Greek real estate market is showing signs of stabilisation, whereas developments in individual segments vary, depending on the location and use of property, while investor interest for income properties remains on the rise. Tourism and related uses attracted the majority of investment, giving a boost to local markets along with the demand for homes and retail in specific locations. Necessary condition for overall real estate market stabilisation is the diffusion of demand to secondary and lower markets which will mark the end of the current transition period and signals the start of a gradual recovery. Residential market's current state is affected by the wide spread and constantly expanding short-term leasing practice.

The increase in prices recorded by the Bank of Greece indices as well as private sources, reflect the emerging investment characteristics of the housing sector. Housing market in the past has traditionally exhibited low yields with investment targeting profit mainly from development and capital growth rather than income. According to the ELSTAT, data collected by notaries throughout the country, the number of sales in real estate increased for third consecutive year, by 15.3% in 2017 (10.8% in 2016 and 25.8% in 2015). The annual rate of change in private construction activity, in terms of building permits, increased by 8.7% in 2017, recording a positive rate of change for the first time since 2005, a trend that continued in 2018 with a 10.0% increase, but turned into negative territory in the first two months of 2019 (-6.8%, y-o-y). By contrast, investment in construction decreased by 18.4% on average in 2018, inverting the positive growth experienced in 2017 and 2016 (0.4% and 29.2% respectively), whilst in the first quarter of 2019 a positive rate of change was recorded (10.2%). In residential investment a reversal of the negative rates, for the first time since 2008, was recorded in 2018 (17.2%) and in the first quarter of 2019 (6.4%, y-o-y). Residential investment as a percentage of GDP (at constant prices) declined from 9.8% of GDP in 2007 to 0.7% of GDP in 2018 and in the first quarter of 2019 still remained at low levels (0.7% of GDP). Business expectations in construction turned positive in 2018 (4.8%) ending a three-year period of negative rates. However, in the first five months of 2019 the rate of change was negative (6.7%, y-o-y). Business expectations for dwellings in the first five months of 2019 turned negative (13.9%, y-o-y), ending the positive outlook of the three previous years (2016: 44.4%, 2017: 18.8% and 2018: 13.5%).

According to ELSTAT data, in 2018 construction activity in housing continued to exhibit a strong upward trend being this the third consecutive year of growth (annual growth rates in construction activity in terms of volume for 2016: 2.0%, 2017: 12.5% and 2018: 24.2%), although construction activity in absolute levels remains low. Moreover, construction activity in the Greater Athens area, partly due to the rapid short-term leasing market expansion, increased significantly in 2018 by around 31.0% in terms of number of permits and 33.0% in terms of volume (annual growth rates in construction activity in terms of volume for 2016: 18.8% and 2017: 28.4%). However, in the first two months of 2019 construction activity in terms of volume declined (-2.3% y-o-y) whereas in terms of number of permits increased by 7.0% y-o-y, whilst for the Greater Athens area significant increases were reported in terms of volume and number of permits (28.7% y-o-y and 63.6%, y-o-y, respectively).

In the residential property segment, the downward trend in prices in the country as a whole came to a halt, following nine consecutive years of decline, a pick-up in prices was recorded in 2018. It is notable that mixed trends were reported at the local level. Specifically, based on appraisal data collected from credit institutions, nominal apartment prices rose at an average annual rate of 1.6% in 2018 (with quarterly growth rates accelerating to 0.5%, 1.2%, 2.2% and 2.6% in the first, second, third and fourth quarter of 2018, respectively), after falling by 1.0% in 2017 and 2.4% in 2016. In the first quarter of 2019, nominal apartment prices are estimated to have increased, on average, by 4.0% y-o-y. A breakdown of nationwide data by age shows that prices of "new" apartments (up to 5 years old) rose by 1.8% in 2018, outpacing those of "old" (over 5 years old) apartments (1.4%), while a geographical breakdown revealed that the increase in apartment prices for the whole of 2018 was stronger in Athens (2.5%) compared with Thessaloniki (1.0%), other major cities (0.7%) and other semi-urban and rural areas (0.9%). In the first quarter of 2019, prices of "new" apartments increased by 4.0% y-o-y, whereas prices of "old" apartments increased by 3.9% y-o-y. According to regional data, in the first quarter of 2019, apartment prices are estimated to have increased by 5.8% y-o-y in Athens, 3.9% in Thessaloniki, 1.9% in other cities and 2.6% in other areas of Greece.

A gradual overall stabilisation of the residential property market and an increase in values locally is expected in the short term. Provided that taxation on property capital value will eventually become more rational, as well as restoration of liquidity flows from the banking system, further strengthening of household disposable income and improvement of the growth prospects of the Greek economy, housing market is expected to start gradually recovering at a solid base, starting from prime properties.

MORTGAGE FUNDING

Housing loans continue to record negative y-o-y growth rates, with the latest figure (March 2019) standing at -2.9%, almost unchanged compared to the previous two years (2018: -2.8% and 2017: -3.0%). The continued stagnation of bank lending to households for house purchase comes along with bank interest rates on new and outstanding housing loans which remained almost unchanged in March 2019 compared with 2018 (averages) and a small rise and decrease, correspondingly, against 2017. However, short-term trends suggest that interest rates on new housing loans followed a slightly upward path between January 2018 and March 2019. On the contrary, interest rates on outstanding amounts of housing loans recorded a decrease over the same period. In particular, interest rates on new housing loans in March 2019 stood at 3.3% and on outstanding housing loans with initial maturity over 5 years stood at 2.1%.

According to the Bank Lending Survey results for Greece, against the previous quarter, terms and conditions for loans to households for house purchase and consumer credit (latest figures up to Q1 2019) were tightened moderately by banks during Q3 2016, and remained unchanged since then (excluding Q2 2018, for both housing loans and consumer credit, where an increase was recorded). Similarly, credit standards for loans to households for house purchase and consumer credit were tightened moderately by banks during Q3 2016 as well as during Q2 2017, eased moderately in Q2 2018 and remained unchanged since then, a trend that it is expected to continue in Q2 2019 for loans to households for house purchase whereas credit standards for consumer credit will be tightened moderately by banks. The proportion of rejected loan applications to housing loans decreased moderately in Q3 2018 followed by a small increase in Q4 2018 and remained unchanged in the last recorded quarter (i.e. Q1 2019). As far as demand is concerned, it somewhat increased for housing loans as well as for consumer loans in Q1 2019, recording a weaker rise compared to the increase reported for Q4 2018 for both loan categories. The demand for housing loans increased due to improved prospects of the real estate market supported by increased activity of non-resident investors, while the demand for consumer loans increased due to the improved consumer confidence and the need to finance purchases of consumer durables. For Q2 2019, the demand for both housing loans and consumer credit is expected to increase moderately.

As far as deposits are concerned, since the eruption of the Greek crisis in October 2009, private sector deposits went down by EUR 100.4 bn in total. More specifically, the strong deposit outflows between December 2014 and June 2015 (private sector deposits reduced by EUR 48 bn) ceased after the imposition of capital controls (end-June 2015) and the agreement on the third economic adjustment program (August 2015). Since then, private sector deposits went up by EUR 18 bn up to March 2019 and returned back to the levels of April 2015. Domestic savings were insufficient to meet the investment needs of the Greek economy which, after a long period of very low investment rates, are significant. Thus, the restoration of normal bank credit conditions with the resolution of NPLs along with improved access of companies to capital markets is necessary. Finally, conditions that attract foreign capital should continue to be encouraged, especially FDI. In the last three years FDI inflows have been considerably higher (EUR 2.5 bn in 2016, EUR 3.2 bn in 2017 and EUR 3.6 bn in 2018) with the real estate market contributing significantly, especially in 2018 (31.3%).

In 2018 and the first quarter of 2019, Greek banks issued approx. EUR 3.5 bn in covered bonds. The majority of the bonds were retained by banks and used in interbank repo transactions and in transactions with the Eurosystem.

The official conclusion of the three-year ESM financial assistance programme on 20 August 2018, the disbursement of EUR 61.9 bn followed by the ESM over three years in support of macroeconomic adjustment and bank recapitalisation in Greece along with a number of agreed legislative reforms in the banking sector including, inter alia, an NPL resolution strategy involving insolvency legislation, an out-of-court workout scheme and an electronic auctions platform represent a step towards the restoration of confidence in the Greek banking system contributing towards the improvement in bank credit conditions.

	GREECE 2017	GREECE 2018	EU 28 2018
Real GDP growth (%) (1)	1.4	1.9	2.0
Unemployment Rate (LSF), annual average (%) (1)	21.5	19.3	6.8
HICP inflation (%) (1)	1.1	0.8	1.9
Outstanding Residential Loans (mn EUR) (2)	58,812	56,766	7,251,189
Outstanding Residential Loans per capita over 18 (EUR) (2)	6,616	6,400	17,404
Outstanding Residential Loans to disposable income ratio (%) (2)	50.9	48.0	77.2*
Gross residential lending, annual growth (%) (2)	10.0	6.8	2.34
Typical mortgage rate, annual average (%) (2)	2.8	3.1	2.5**
Owner occupation rate (%) (1)	73.3	73.5	69.3*
Nominal house price growth (%) (2)	-1.0	1.5	6.3

* The aggregate EU figure is from 2017.
** Please note that this value is the simple average of the typical interest rate of the EU 28 countries.

Sources:
(1) Eurostat
(2) European Mortgage Federation - Hypostat 2019, 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:	Confidential information
Proportion of outstanding mortgage loans of the mortgage issuances:	Confidential information
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 tax is at 3%. • 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 2019.
The level (if any) of government subsidies for house purchases:	For house purchase, there are no government subsidies.

Hungary

By Gyula Nagy, Takarék Mortgage Bank Plc

IN A NUTSHELL

- → House price growth in Hungary was around 18% in 2018;
- → Gross residential lending grew by 26% in 2018 compared to the previous year;
- → In spite of the dynamic growth in residential mortgage lending, the proportion of household loans compared to the GDP is still very low in Hungary;
- → At the end of 2018 more than 90% of the newly issued mortgage loans had fixed interest rates;
- → The Mortgage Funding Adequacy Ratio will increase from 20 to 25% from the 1st of October 2019.

MACROECONOMIC OVERVIEW

In 2018 the performance of the economy was up 4.9% compared to the previous year. From the production approach, gross value added was up by 3.2% in industry and 23% in construction. Services were up by 4.4%, and agriculture by 5.3%. From the expenditure approach, the actual final consumption of households was up by 4.6%, and the actual final consumption of the government fell by 2.1%. As a result of these trends, actual final consumption rose by 3.7%. Gross capital formation increased by 17% compared to the previous year. Exports grew by 4.7% and imports by 7.1% in 2018.

Average gross earnings (HUF 329,000) in 2018 were 10.7% higher than a year earlier. The unemployment rate was 3.7% at the end of 2018, 0.2 pps lower than a year before.

Consumer prices were higher by 2.7% in December 2018 than a year earlier. On average for the whole year, consumer prices rose by 2.9% compared to the previous year. Highest price growth was observed on alcoholic beverages and tobacco (5.6%) and food (4.2%). Consumers paid 0.4% less for consumer durables.

Hungary posted a budget deficit of 2.2% percent of the GDP in 2018. The public debt to GDP ratio was 70.8%at the end of the year.

HOUSING AND MORTGAGE MARKETS

HOUSING MARKET

With a population of 9.79 mn Hungary had a stock of 4.439 mn housing units at the end of 2018. The home ownership ratio was around 86% in 2018, a ratio which is traditionally high in the CEE and Baltic countries. With a view to boosting new residential construction, from January 2016 the government reduced the VAT on new build dwellings (from 27% to 5%). As a result of this regulatory change the number of building permits grew significantly. The supply side (housing completions) followed the growth of permissions with a delay and peaked in 2018. The end of the reduced VAT period was announced by the government in 2018, but for new dwellings, for which the building permit was issued before the 1st of November 2018 the preferential VAT rate may be applied in relation to sales concluded until the end of 2023.

With the announcement of the end of the preferential VAT rate period the number of issued building permits peaked in 2017 with 37,997. In 2018, 36,719 building permits were granted. 17,681 housing completions were registered in 2018, 23% more than in the previous year.

As regards the housing market, in Budapest 4,536 new homes were completed in 2018, this figure represents ca. 25% of all housing completions in Hungary. House prices increased by 18% in 2018 compared to the previous year according to the Takarék House Price Index. In nominal terms by the end of 2018 house prices had doubled since the lowest level at the beginning of 2014.

House prices increased above average in the capital in 2018, where growth was above 20%.

The price gap between the capital and rural settlements widened. In rural settlements despite the continuous price appreciation – house prices became increasingly cheaper compared to Budapest.

When comparing housing affordability in the different regions of Hungary, buyers seeking an average type new dwelling have to save 8 and a half years' worth of income, whereas people in the Northern Hungary region (where house prices are the lowest) have to save only 3.6 years of avg. income.

According to the figures of the National Statistical Office, the number of housing transactions was 176,336 in 2018.

MORTGAGE MARKETS

Market dynamics

Gross residential lending (disbursement of new housing loans) grew again in 2018 by 26% compared to the previous year. With this steady growth the newly disbursed housing loans are almost at the level of the issuance before the financial crisis erupted in 2008. In spite of this dynamic growth, the proportion of outstanding residential loans compared to GDP is very low in Hungary (housing loans below 10 %) so there is further growth potential in gross residential lending. Mortgage loans can only be originated in in HUF (FX lending was banned earlier in Hungary) and more than 90% of new mortgage loans are based on a fixed interest rate period in light of an increased risk of interest rate hikes in the near future.

The average annual interest rate on newly disbursed mortgage loans was around 4.4%. The most typical mortgage product in Q4 of 2018 was offered with interest fixed for a period of 5 to 10 years (51% of total issuance). Mortgage loans offered with a floating rate up to max 1-year int. period represented only 6.5% of all the loans issued in Q4 2018.

According to the Financial Stability Report of the Hungarian National Bank, by the end of 2018 the ratio of loans overdue for more than 90 days decreased in the segment of housing mortgage loans from 4.9% in 2017 to 2.4 %. For subsidised housing loans the ratio at the end of 2018 was 2.1% compared to 2.6 % a year before. The NPL ratio for the so called "home equity loans" was around 11.7% in 2018. This remains a high figure, even if the NPL rate at the end of the previous year was 17.1%.

NON-MARKET LED INITIATIVES

The National Bank of Hungary supports the spreading of mortgage loans with longer fixed interest rate period through several measures.

A new regulatory instrument (PTI) was introduced by the National Bank of Hungary from the 1st of October in 2018. According to the new rule there is a maximum payment to income (calculated on monthly basis) ratio of 25% for loans with variable interest or fixed interest of less than five years and 35% for mortgages with five to ten-year period of fixed interest rate. The maximum PTI ratio (50%) will remain unchanged for mortgages with fixed interest rate period of above ten years. As a result of the new regulation the proportion of newly issued variable interest rate mortgage loans fell significantly in Q4 2018.

The mortgage bond purchase program of the NBH has also helped the banking sector to switch to fixed rate lending. Within the framework of the new program in 2018 the NBH started to buy fixed rate mortgage bonds on the auctions and also on the secondary market at preferential rates.

MORTGAGE FUNDING

The largest portion of mortgage loans is still deposit-funded in Hungary, but covered bonds are also a commonly used source of mortgage funding. 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 establish a mortgage bond market from the year 2000 onwards.

From April 2017 a new regulation (Mortgage Funding Adequacy Ratio) issued by the National Bank of Hungary entered into force. According to the regulation commercial banks had to refinance at first 15% of their outstanding long-term mortgage loans with long term securities. The ratio was increased to 20% from October 2018 and will change to 25% from the 1st of October 2019. By the end of 2018 there were 5 mortgage banks operating on the Hungarian market.

	HUNGARY 2017	HUNGARY 2018	EU 28 2018
Real GDP growth (%) (1)	4.0	4.9	2.0
Unemployment Rate (LSF), annual average (%) (1)	4.2	3.7	6.8
HICP inflation (%) (1)	2.4	2.9	1.9
Outstanding Residential Loans (mn EUR) (2)	13,602	13,604	7,251,189
Outstanding Residential Loans per capita over 18 (EUR) (2)	1,683	1,687	17,404
Outstanding Residential Loans to disposable income ratio (%) (2)	19.6	18.1	77.2*
Gross residential lending, annual growth (%) (2)	39.3	22.2	2.34
Typical mortgage rate, annual average (%) (2)	4.7	4.4	2.5**
Owner occupation rate (%) (1)	85.3	86.0	69.3*
Nominal house price growth (%) (2)	13.4	18.2	6.3

* The aggregate EU figure is from 2017.
** Please note that this value is the simple average of the typical interest rate of the EU 28 countries.

Sources:
(1) Eurostat
(2) European Mortgage Federation - Hypostat 2019, 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:	In proportion to the total volume commercial banks issued 51.3%, mortgage banks 27.1%, savings banks 2.7% and savings cooperatives 18.8% of the new mortgage issuances.
Proportion of outstanding mortgage loans of the mortgage issuances:	Banks hold 55.86%, mortgage banks 27.65%, savings banks 3.39% and home saving cooperatives 13.1% 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 61.76% in 2018.
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 of 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 2018. The average maturity has decreased compared to the previous year (14.8 years).
Most common way to fund mortgage lending:	The most common way to fund mortgage lending is funding from deposits, but since April 2017 commercial banks must adhere to a new regulation introduced by the National Bank of Hungary. The regulation prescribed, that certain proportion of all outstanding residential mortgage loans must be funded or refinanced by mortgage bonds. From October 2018 the ratio increased to 20%, from October 2019 the ratio will increase to 25% so the proportion of mortgage loans funded by mortgage bonds is increasing in Hungary.
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 and Customs Administration. (The rate of duty is 4% up to HUF 1 bn (EUR 3.1mn) per property, 2% above that, but not exceeding HUF 200 mn per property. Buyers may be entitled to certain reliefs. Legal fees may range from 0.5–1% of the property price, usually paid by the buyer. When the property is sold through a real estate agency, a further 3-4% is generally paid by the seller. Buying a newly built flat is subject to VAT payment (5%) until end of 2023 if the building permit was issued before the 1st of November 2018. Otherwise, the general 27% VAT is applicable.
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 home. From mid-2019 the purchase of used homes in certain small settlements (about 2,500 countrywide) can also be a subject of this subsidy, up to 50% of the purchase price. Generally, however in case of families buying a used flat, a smaller lump sum subsidy 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. The extension of already built houses can also be financed from the subsidies.

Ireland

By Anthony O'Brien, Banking & Payments Federation Ireland

IN A NUTSHELL

- Economic improvement continues supporting household formation;
- Although increasing, housing supply remains well below levels required;
- House sales and rental prices are rising fast due to the mismatch between supply and demand;
- Mortgage lending is growing strongly especially for first-time buyers (FTBs);
- The Irish Central Bank's macro prudential rules restrict the share of lending at high LTVs and LTIs, but the government's Help to Buy scheme helps FTBs to finance new homes.

MACROECONOMIC OVERVIEW

Ireland's economy posted another solid performance in 2018 with gross domestic product (GDP) up 6.7% year-on-year in volume terms, according to the Central Statistics Office (CSO). Investment recovered strongly following a drop of 31% in 2017, rising by 9.8% in 2018. Total domestic demand rose by 4.7% year-on-year with personal consumption up 3% and net exports 13.8% higher. Modified total domestic demand, which removes disproportionate globalisation effects such as intellectual property imports, rose by 3.3%.

Ireland's current account surplus increased to almost EUR 29 bn in 2018 (9.1% of GDP), driven mainly by growth in computer services exports. Ireland's exports of financial services fell by 0.9% in 2018, the first drop since 2013, to EUR 14.5 bn.

Unemployment also continued to fall, with the rate dropping to 5.8% by Q4 2018, down from 6.1% a year earlier. The gross saving ratio of households (saving as a percentage of total disposable income) increased from 10.8% in 2017 to 11.8% in 2018. Finally, consumer price inflation remained low at 0.7% in 2018.

HOUSING AND MORTGAGE MARKETS

HOUSING MARKET

The housing and mortgage markets continued to grow in 2018 as they benefitted from improvements in consumer confidence, increased employment and pent-up demand for housing.

The shortage of supply of newly built homes remained the key issue. The medium to long-term requirement for new building is estimated to be approximately 25,000 housing units per annum nationally, of which around 7,000 units in Dublin.

While data on housing completions had traditionally been based on connections to the electricity grid, the CSO introduced new data on new housing completions in 2018. This showed that housing completions rose by 25.4% year-on-year to 18,072 in 2018. Almost 61% of new completions in 2018 were multi-unit scheme houses and almost half of those (49%) were semi-detached houses. Some 73% of scheme house completions in 2018 were in Dublin or the Mid-East region (the four counties bordering Dublin). There were almost 22,500 commencements in 2018, up 27.9% year-on-year.

While Dublin has the highest share of commencement volumes at 34.3%, it had the slowest growth rate at 10.3% year-on-year. The Mid-East region accounted for almost 32% of the increase in housing starts.

CSO annual data shows that residential property prices rose for the sixth successive year, climbing by 10.2% in 2018. While Dublin initially drove the improvement, the prices of properties outside the capital have risen faster in each of the past four years. Dublin prices rose by 8.6% in 2018, but prices outside the capital rose by 12%.

Excluding simple property transfers, the number of market-based residential property sales to household buyers grew by 2.6% in 2018 to almost 44,500, while the value of sales jumped by 9.8% to EUR 12.9 bn. Sales to non-household buyers (such as companies, housing charities and government) rose by 4.3% in volume terms to 9,145 and by 15.3% in value terms to almost EUR 2.4 bn.

Household purchases of residential property in Dublin rose by 3.3% year-on-year in volume terms to more than 14,600, or one-third of purchases. Dublin accounts for almost 45% of non-household purchases.

The mismatch between current demand, combined with pent-up demand, and the supply of new homes has put significant pressure on the availability and cost of rented properties. Figures from the Residential Tenancies Board show that the standardised national average rent for new tenancies was EUR 1,134 per month in Q4 2018, up 6.9% on one year earlier. Legislation was introduced in 2016 aimed at slowing rent increases through rent pressure zones, where rents would only be allowed to rise by up to 4% annually.

MORTGAGE MARKETS

BPFI mortgage data show that there were 40,203 mortgage drawdowns valued at EUR 8.7 bn in 2018 compared with 34,798 drawdowns valued at EUR 7.3 bn in 2017 – representing a 15.5% increase in volume terms and a 19.4% increase in value terms. Mortgage approval activity also increased, albeit at a slower rate than drawdowns; in volume terms by 6% in 2018 bringing the total number of approvals to 45,656 and in value terms activity increased by around 9% with the total value of approvals exceeding EUR 10.1 bn in 2018. First-time buyers (FTBs) accounted for nearly half of all mortgage drawdowns by value in 2018, a trend that is similar to the one experienced over the past few years. The value of FTB drawdowns rose by 18.7% year-on-year to some EUR 4.2 bn while the value of re-mortgaging, where borrowers switch from one lender to another, rose by 76.5% to EUR 1.2 bn.

Total residential and commercial mortgage debt outstanding, including securitisations, shrank to about EUR 97.5 bn at the end of 2018 from about EUR 101.9 bn a year earlier, according to the Central Bank of Ireland (CBI). Some 43.1% of the value of personal mortgages outstanding was on tracker rates linked to the ECB base rate in Q4 2018. The share of outstanding mortgages on fixed rates over one year increased from 14.2% to 21.4% between Q4 2017 and Q4 2018. Some 61% of the value of new mortgages issued was on fixed rates in 2018.

NON-MARKET LED INITIATIVES

The CBI maintained its loan-to-value (LTV) and loan-to-income (LTI) limits for new mortgage lending in 2018 without changes. CBI research indicates that the average LTV increased in 2018 to 80% from 79.7% in 2017, while the average LTI rose to 3.1 from 3.0. For second and subsequent buyers (mostly home movers), the average LTV fell to 66.8% from 67.1%, while the average LTI rose by 0.1 percentage points to 2.6.

The government Help to Buy (HTB) tax rebate scheme allows FTBs to use refunded deposit interest and income tax to help finance new home purchase, with claimants accessing up to EUR 20,000 towards the deposit for a new home. By the end of 2018, 10,349 HTB claims had been made, of which 9,790 were approved. Of the 4,880 claims during 2018, some 22% were for self-builds.

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 private dwelling home (PDH) in arrears of more than 90 days fell to 6% of all PDH mortgage accounts by the end of Q4 2018. Some 13.9% of buy-to-let (BTL) mortgage accounts were in arrears of more than 90 days.

Mortgage lenders actively assist borrowers who experience repayment difficulties, which is demonstrated by the fact that 14.7% of all PDH accounts and 15.8% of all BTL accounts had an active restructure by the end of 2018.

MORTGAGE FUNDING

Banks in Ireland rely mainly on retail funding sources (household and corporate deposits) for mortgage lending. Irish private sector deposits (mainly from households and non-financial corporations) represented 32% of credit institution liabilities in Ireland in 2018, or 53% of total liabilities for credit institutions with a domestic market focus.

Some EUR 21.6 bn in mortgages outstanding were securitised at the end of 2018 according to the CBI.

Mortgage covered bonds outstanding in Ireland increased by 27% year-on-year to EUR 20.8 bn in 2018 reaching the same level of 2013. Some EUR 5.6 bn in new mortgage covered bonds was issued during 2018.

	IRELAND 2017	IRELAND 2018	EU 28 2018
Real GDP growth (%) (1)	7.2	6.7	2.0
Unemployment Rate (LSF), annual average (%) (1)	6.7	5.8	6.8
HICP inflation (%) (1)	0.3	0.7	1.9
Outstanding Residential Loans (mn EUR) (2)	84,045	83,301	7,251,189
Outstanding Residential Loans per capita over 18 (EUR) (2)	23,409	22,919	17,404
Outstanding Residential Loans to disposable income ratio (%) (2)	81.3	76.0	77.2*
Gross residential lending, annual growth (%) (2)	28.8	19.7	2.34
Typical mortgage rate, annual average (%) (2)	3.2	3.0	2.5**
Owner occupation rate (%) (1)	69.5	n/a	69.3*
Nominal house price growth (%) (2)	10.9	10.2	6.3

* The aggregate EU figure is from 2017.
** Please note that this value is the simple average of the typical interest rate of the EU 28 countries.

Sources:
(1) Eurostat
(2) European Mortgage Federation - Hypostat 2019, Statistical Tables.

CBI LTV AND LTI LIMITS

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

Source: Central Bank of Ireland

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 13% of the number and 16% of the value of residential mortgages outstanding at the end of 2018, according to the Central Bank of Ireland. They held 11.6% and 18.6% of the number of principal dwelling home (PDH) and buy-to-let (BTL) mortgages outstanding at the end of 2018. Retail credit firms, which are non-deposit taking regulated lenders, held 8.1% and 11.5% of PDH and BTL mortgages, respectively, while unregulated loan owners held 3.5% of PDH and 7.1% of BTL mortgages.
Typical LTV ratio on residential mortgage loans:	The mean average LTV ratio for first-time buyer mortgages in Ireland was 80% in 2018 according to Central Bank of Ireland data, up from 79.7% a year earlier. The average LTV for subsequent private dwelling home (PDH) buyers was much lower at 66.8%, up from 67.1% in 2017. BTL LTVs rose by 0.2 pps to 57.8%. Note: These figures exclude the 9% of loans that were exempt from the Central Bank of Ireland's macroprudential regulations in 2018, including switcher loans (with no additional lending) and loans in negative equity.
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):	A significant majority of new mortgage lending was issued on rates fixed for more than one year, based on the French amortisation model, in 2018. This marked a significant shift from the traditional preference for variable rates. Almost 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 median term 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 mn (1% of the total if the VAT-exclusive price is up to EUR 1 mn) and 2% any amounts above EUR 1 mn.
The level (if any) of government subsidies for house purchases:	Not available

Italy

By Marco Marino, Italian Banking Association – ABI

IN A NUTSHELL

- → In 2018 the Italian residential housing market registered the highest growth since 2010, as a result of the fifth consecutive, positive trend of the previous years.
- → House prices continued to fall, broadly in line with the trend of the last 7 years.
- → New loans for residential housing purchase recorded a decrease in 2018; however, outstanding residential loans continued to show progressive growth.
- → Mortgage interest rates continued to fall to historic lows.
- → The stock of non-performing loans declined considerably.

MACROECONOMIC OVERVIEW

After growing by 1.7% in 2017, the fastest in nearly a decade, economic growth in Italy slowed in 2018 to 0.9%. This performance reflected both the slowdown in exports, due to the tensions on commercial policies, and in national demand – which in the second part of the year concerned mainly investments, especially machinery and other instrumental assets – and also household spending, but at a lower rate.

The increase in private consumption, under way since the spring of 2014, slackened at 0.6%. The propensity to save of consumer households began to rise to 5.2% after three years of slowdown, plausibly for reasons linked to greater uncertainty. The confidence indicators, which nonetheless remained high, began to fall in the second half of 2018.

The growth in households' disposable income strengthened, thanks to the expansion in employment, higher wages and the increase in social security benefits; in particular, unemployment decreased to 10.6%, from 11.2% in 2017, and employment rose on average in the year, but growth halted in the second half, reflecting the weakening economy (there was an increase in payroll employees hired with permanent contracts).

Consumer price inflation was low (0.6%), reflecting the margins of spare capacity and, in the second half of the year, the worsening of cyclical conditions.

The stock of NPLs continued to fall at a swift pace, due in part to massive disposals of NPLs that totalled EUR 55 bn last year, EUR 15 bn more than the amount that the Italian banking sector had set out to sell at the start of 2018. The volume of total net NPLs amounted to EUR 90 bn. The reduction of the NPL inflows combined with the increasing outflows have allowed for a strong reduction in the NPL ratio, from 16.2% in 2015 to 8.7% in December 2018 if measured in gross terms, or from almost 10% to 4.3% in net terms. This declining trend is expected to continue in the years ahead.

A slight recovery of Italian economic activity in the first months of 2019 interrupted the marginally negative trend of the second half of 2018. According to the latest data based on the Bank of Italy's forecasting models, GDP growth, adjusted for calendar effects, will be 0.1% in 2019, 0.8% in 2020 and 1.0% in 2021.

HOUSING AND MORTGAGE MARKETS

HOUSING MARKET

In 2018, the Italian residential housing market registered the highest figure since 2010 as a result of the fifth consecutive year of positive evolution.

Housing transactions amounted to more than 578,000, and the growth rate was 6.5%, compared to 2017.

In particular, the analysis of transactions across macro geographical areas (Central, North, South, Islands) showed that the most significant growth was recorded in the North East area (+10.2%), which represents ⅕ of the market; the North West, where the increase was equal to 5.6%, remained the most dynamic area, with more than ⅓ of the total transactions (34.2%). In the South and the Islands the housing transactions increased respectively by 3.8% and 7.7%, while in the Central areas the increase was equal to 6.4% compared to 2017, in line with the national trend.

Transaction data regarding the eight main Italian cities confirmed the expansive trend. Moreover, the analysis shows that the growth of transactions in the major cities (5.8%) was lower than that registered in other towns (6.9%), confirming the trend of the previous year.

Transaction analysis in terms of size shows the same general performance both in aggregate terms (+6.7%) and in macro geographical areas. In particular, house transactions represented more than 61 mn square meters, with an average area per housing unit equal to 105.9 m^2, slightly higher than data of 2017 (+0.2 m^2).

Together with the further rise in housing sales, prices continued to fall, broadly in line with the trend under way for 7 years.

In 2018, residential house prices decreased by 0.6% on average in the year. The analysis of the quotations' performance in the main eight cities of Italy shows that Milan also in 2018 registered an increase of the quotations €/m^2, by 0.9% y-o-y.

MORTGAGE MARKETS

Market dynamics

In general terms, bank loans to households continued to increase considerably.

With reference to the residential mortgage market, outstanding residential loans have continued to grow progressively since 2015. The outstanding amount reached more than EUR 379 bn in 2018 (EUR 375.4 bn in 2017). However, and after the excellent growth registered in previous years, new loans for residential housing purchase (EUR 67.8 billion at the end of the year) recorded a decrease in 2018.

According to Bank of Italy research, the conditions of supply and demand changed with respect to last year. In particular, demand grew, while supply recorded a slow down at the end of 2018 and the beginning of 2019.

In 2018, housing transactions with a mortgage continued to increase. They amounted to about 283,000 units, with a rate of increase of 8.8% with respect to 2017. Considering the total number of houses purchased, those with mortgages represent about 50% of the total, recording the new maximum value of the incidence observed since 2011, after that registered in 2017. The most significant increases were observed in the North-East and in the Centre regions, with respectively +12.3% and +10.5%.

The average mortgage amount was around EUR 126,500 and the average maturity around 22.9 years.

Moreover, the default rate of mortgages recorded a further decrease. In general terms, the favourable conditions of mortgage loans for housing purchase driven by low interest rates (Euribor below zero reduced the instalments of variable-rate loans, making them more sustainable) have reduced over time the risk of this market.

The average interest rate on short term loans (with maturity <1 year) remained essentially stable at 1.52% (1.53% at year-end 2017), while interest rates with maturity over 1 year fell to 2.06% from 2.12% of the previous year. The average rate on new mortgages for house purchase decreased to 1.89% (1.90% at the end of 2017). With interest rates at historic lows, borrowers confirmed their preference for fixed-rate mortgages.

Non-market led initiatives

The extension to 2018 of tax breaks related to house renovation may have had a positive impact on purchasing decisions. This measure, the so-called "Restructuring Bonus", is applicable on payments made for extraordinary maintenance and restorations of properties. This measure has been extended several times.

In particular, those who renovate their property can take advantage of a 50% IRPEF (personal income tax) deduction up to a maximum expenditure of EUR 96,000 per property unit. From 1st January 2020 – in the absence of further extensions – the deduction will return to the ordinary level of 36%. The deduction is divided into 10 equal annual instalments, starting in the year in which the expenditure started and thence into the following years.

Other important facilities have been introduced over the years, like the fiscal benefit for the purchase of furniture items or the increase of the maximum limit of the interest expense paid on mortgages for deductibility.

Any further important evolution

From the start of its operation to December 2018, the applications for the First Home Mortgage Guarantee Fund amounted to more than 78,700 with a total amount of mortgage value of EUR 8.5 bn.

The Fund supports access to credit for all the consumers willing to buy or renovate their first house with a raise in energy efficiency (but it must not be measured). The Fund has a budget of about EUR 650 mn and offers guarantees on mortgage financing for an estimated amount of EUR 20 bn. Upon request of the consumer, if all criteria are fulfilled and the adhering bank decides to underwrite the mortgage, the public guarantee covers 50% of the total amount of the financing.

The consumer applies both for (i) a mortgage loan from a bank that adheres to the initiative and (ii) the public guarantee through the bank that is sent to the Consap Ltd., the State Agency that manages the initiative. The applicant must declare that the immovable property securing the financing is a "first house" and is not classified in the Real Estate public registry as a luxury house, and the amount of the requested mortgage loan is lower than EUR 250,000.

Banks have full autonomy in relation to the decision to finance applicants based on a creditworthiness assessment.

MORTGAGE FUNDING

The amount of total funding (deposits from resident customers and bonds) at the end of 2018 grew by 0.2% y-o-y. More in detail, deposits (current accounts, certificates of deposit, repurchase agreements) increased by 2.6% compared to the previous year, while medium and long-term funding, i.e. through bonds, decreased by 12.3%.

Since late 2007, before the onset of the crisis to date, customer deposits rose from EUR 1,549 to almost EUR 1,731 bn, an increase - in absolute terms - of more than EUR 182 bn.

In 2018, Italian Covered Bond issuances posted excellent growth at approximately EUR 44.3 bn (doubling the value of 2017, equal to EUR 23.2 bn), and the volume of outstanding bonds increased to about EUR 169 bn.

Regarding the securitisation market, in 2018 EUR 46.6 bn of securitised products were issued in Italy, representing excellent growth of more than 70% with respect to 2017. The volume of ABS issuances amounted to around EUR 25.1 bn against EUR 11.6 bn as of 2017.

	ITALY 2017	ITALY 2018	EU 28 2018
Real GDP growth (%) (1)	1.5	0.9	2.0
Unemployment Rate (LSF), annual average (%) (1)	11.2	10.6	6.8
HICP inflation (%) (1)	1.3	1.2	1.9
Outstanding Residential Loans (mn EUR) (2)	375,398	379,054	7,251,189
Outstanding Residential Loans per capita over 18 (EUR) (2)	7,407	7,480	17,404
Outstanding Residential Loans to disposable income ratio (%) (2)	32.5	32.2	77.2*
Gross residential lending, annual growth (%) (2)	-14.4	-5.0	2.34
Typical mortgage rate, annual average (%) (2)	1.9	1.9	2.5**
Owner occupation rate (%) (1)	72.4	n/a	69.3*
Nominal house price growth (%) (2)	-1.9	-0.6	6.3

* The aggregate EU figure is from 2017.
** Please note that this value is the simple average of the typical interest rate of the EU 28 countries.

Sources:
(1) Eurostat
(2) European Mortgage Federation - Hypostat 2019, 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:	Data not available.
Any distinction made between residential and non-residential loans:	Residential loans are loans granted for house purchase and renovation.
Most common mortgage product(s):	Fixed interest rate mortgage loans to purchase residential real estate.
Typical maturity of a mortgage:	20-25 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 mn and will offer guarantees on mortgage financing for an estimated amount of 14 bn euro.

Latvia

By Olga Lielkalne, Anete Migale, Andrejs Kurbatskis, Bank of Latvia

IN A NUTSHELL

- → Economic expansion was mainly driven by domestic demand in 2018 as investment maintained a high growth rate stimulated by the absorption of EU funds and accelerating private investment, while declining unemployment and wage increases contributed to private consumption growth.
- → The housing market was in an expansive phase supported by a healthy economic background and the state support programme for house purchase.
- → New loans for house purchase continued to grow.
- → Domestic deposits dominated in the funding structure of the banking sector.

MACROECONOMIC OVERVIEW

The Latvian economy expanded rapidly in 2018 and grew by 4.8% (s.a.), mainly driven by domestic demand. Investment growth recovery observed in the previous year continued, supported by EU funds' absorption as well as positive development of private investment. Gross fixed capital formation rose by 16.9% including a surge in investment in dwelling, which recovered after two-years of decline. Public consumption also contributed to GDP growth, rising by 3.8%. Private consumption grew at a similar pace (4.5%) as unemployment declined while wages continued to rise. Favourable domestic demand stimulated imports. Export growth slowed down due to one-off factors, e.g., weak performance of the agriculture sector that was affected by weather conditions, as well as moderate external demand in the second half of the year.

The labour market performed well – employment and labour participation picked up reaching historic highs. Unemployment declined further to 7.4% and wage growth accelerated to 8.4% boosting consumption and allowing households to increase their savings. At the same time, the number of entrepreneurs rose, indicating labour shortage as a factor limiting business growth and putting upward pressure on labour costs.

The harmonised consumer price index grew at a moderate pace of 2.6% reflecting global commodity market developments, rising labour costs and an excise tax increase. High energy and wood costs resulted in accelerating production prices (4.5%). Core inflation was slightly higher than in 2017 (1.9% vs 1.7%) resulting from higher labour costs and the indirect effect of energy price increases.

Despite a sustained tax revenue increase, Latvia's general government budget deficit rose to 1% of GDP in 2018 as expenditure grew more rapidly. Expenditure growth was mainly driven by accelerating government spending associated with EU fund absorption as well as additional financing devoted to defence and healthcare. The primary budget deficit amounted to 0.3% of GDP, while general government debt declined to 35.9% of GDP.

HOUSING AND MORTGAGE MARKETS

HOUSING MARKETS

In 2018 real estate prices continued to rise in line with strong income growth and overall fundamentals, while the activity in the housing market stabilised.

According to the Central Statistical Bureau (CSB), in 2018 housing prices grew by 11.1% on a yearly basis driven mainly by the increase in the prices of existing dwellings. Rising prices for existing housing could be explained by the growing demand for affordable housing, supported by the improving financial situation of households (as signalled by robust wage and savings growth), low interest rates, the limited supply in this housing segment and the state support programme for house purchase. At the same time the growth of prices for new housing moderated due to the more active development of economy-class apartments.

Although real estate market activity somewhat contracted in 2018, overall it has remained broadly stable over the last few years. A large number of reservations and unfinished transactions in commissioned apartments and the new apartments under construction has not yet been reflected in the number of purchases. Considering the strong increase in commissioned new dwellings and building permits for new housing (both in terms of number and floor space), the growing supply of housing is expected to support an increase in the activity in the housing market and possibly ease pressure on housing price growth.

MORTGAGE MARKETS

The outstanding amount of banking sector residential and commercial mortgage loans decreased in 2018 by 11.9%. However, the decrease is explained mainly by one-off factors related to structural changes in the Latvian banking sector (for instance, the withdrawal of the credit institution's license). The outstanding amount of residential mortgage loans showed a decrease of 6.0% for the same reasons. Excluding structural one-offs, the residential loan stock increased slightly in 2018 (0.5%) as issuance of new residential mortgage loans peaked (7.1% in 2018), facilitated by a rise in household income, low interest rates and the state support programme for house purchase (in 2018, about half of new residential mortgages were granted within the program). Meanwhile, the repayment of the long-term residential mortgages granted in the pre-crisis boom period is still weighing on the loan portfolio dynamics.

Total residential mortgage loans comprised 13.9% of GDP in 2018 and household indebtedness overall remained low (16.6% of GDP in 2018). Effective interest rates on EUR-denominated residential mortgage loans remained broadly unchanged (2.82% in 2017 and 2018).

The quality of the banking sector loan portfolio continued to improve – residential mortgage loans over 90 days past due made up 2.1% of the respective portfolio, while resident corporate loan portfolio over 90 days past due stood at 2.5% at the end of 2018.

MORTGAGE FUNDING

Credit institutions in Latvia obtain funding mostly from depositors and parent banks. The importance of domestic deposits as a source of funding has been growing, and the share of domestic deposits was 56.9% (compared to 43.0% the year before) of banks' total liabilities by the end of 2018, while the share of liabilities to foreign parent MFIs was 10.8% (9.7% in 2017). In 2018, there were no mortgage covered bonds issued by Latvian MFIs.

	LATVIA 2017	LATVIA 2018	EU 28 2018
Real GDP growth (%) (1)	4.5	4.8	2.0
Unemployment Rate (LSF), annual average (%) (1)	8.7	7.4	6.8
HICP inflation (%) (1)	2.9	2.6	1.9
Outstanding Residential Loans (mn EUR) (2)	4,363	4,102	7,251,189
Outstanding Residential Loans per capita over 18 (EUR) (2)	2,738	2,603	17,404
Outstanding Residential Loans to disposable income ratio (%) (2)	26.9	23.2	77.2*
Gross residential lending, annual growth (%) (2)	15.5	7.4	2.34
Typical mortgage rate, annual average (%) (2)	2.8	2.8	2.5**
Owner occupation rate (%) (1)	81.5	81.6	69.3*
Nominal house price growth (%) (2)	7.9	11.1	6.3

* The aggregate EU figure is from 2017.
** Please note that this value is the simple average of the typical interest rate of the EU 28 countries.

Sources:
(1) Eurostat
(2) European Mortgage Federation - Hypostat 2019, 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.
Typical LTV ratio on residential mortgage loans:	According to the Latvian legislation LTV cannot exceed 90%. For the participants of the state support programme for house purchase and construction, 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 and Regulation for the Credit Register).
Most common mortgage product(s):	Housing loans
Typical maturity of a mortgage:	The typical maturity of a new issued mortgage is 21 years.
Most common way to fund mortgage lending:	See section on Mortgage funding.
Level of costs associated with a house purchase:	A stamp duty of 0.5-2% of the home price applies when registering the purchase. Regularly, the 2% fee applies, and the stamp duty is reduced to 0.5% under the support programme for house purchase. In addition to the stamp duty, 0.1% of the mortgage loan amount should be paid for the registration of the mortgage. These are the main fees associated with house purchase, there are also some additional registration fees, but they are usually small, and their amount is fixed (does not depend on the loan amount or real estate price). For home purchases under the state guarantee programme buyers face additional costs: • for families with children, the one-time fee is applied - 2.5% of the outstanding amount of the guarantee; • for young specialists, the guarantee fee of 4.8% per annum (of outstanding amount) applies.
The level (if any) of government subsidies for house purchases:	It is possible to obtain a state guarantee up to 20% of the loan amount, but not exceeding EUR 20,000 for families with children and EUR 50,000 for young specialists (individuals up to 35 years old who have acquired the vocational secondary or higher education). The reduced cost of the guarantee is applied only to families with children.

Lithuania

By Jonas Grincius, AS Direct Mortgage Capital

IN A NUTSHELL

- → Healthy GDP growth of 3.5%, but at a slower pace than in previous years;
- → Housing market is still growing, but in 2018 it started to experience a slow down.
- → Mortgage lending grew by 9% year on year.

MACROECONOMIC OVERVIEW

Lithuania's economy grew by 3.5% in 2018, a growth rate higher than the one predicted in 2017 (3.0%), but worse than growth rate experienced in 2017 when it was 4.1%. The decline in agricultural and lumber industries output was the main contributor to the slowing growth of GDP, while construction contribution to GDP grew almost by 12% year on year. The GDP composition remained the same, with manufacturing contributing with 23% of the total domestic product and transportation, retail and wholesale trade accounting for another 35%. For 2019 it is forecasted that the GDP growth will decelerate to about 2.5%.

The unemployment continued to decline, the trend which started in 2016 remained, and in 2018 the average unemployment rate was 6.2% down from 7.1% in 2017. In the urban area the unemployment rate was 4.9% while for rural population it was 9.2%, but the decline was noticed in both categories. For 2019 forecasts expect unemployment to further decrease to 5.9%. Wages grew by 8.9% in 2018, even higher than the 8.6% experienced in 2017, with productivity still lagging behind, thus putting pressure on inflation growth.

Annual inflation at the end of 2018 was 2.5%, experiencing a healthy decline from 3.7% in 2017. This was partly due to the general economic slow down observed in lower actual and projected GDP growth. For 2019 inflation is believed to be at about the same level of 2.5%.

HOUSING AND MORTGAGE MARKETS

Homeownership rate in Lithuania continues to be among highest in European countries, standing above 90%, the reason being the relatively easy privatization of housing stock after Lithuania regained its independence in 1990. In 2018 prices grew in all five major cities of Lithuania (population above 100K), but at different rates. The smallest growth was in the capital city of Vilnius where prices increased by 3% after an increase of 3.6% last year, this was due to already high price levels and a gradual market saturation. In other cities the price growth was more robust ranging from 4% to 11%. Number of completed dwellings validates this point, in 2018 it was 6,434, almost at the same level as in 2017 – 6,420 and noticeably down from of 7,051 in 2016. Noteworthy to mention, that in contrast to completed dwellings, number of permits issued in 2018 was 8,082 and a 5% growth compared to last year. This is an interesting trend indicating an increase in completed dwellings for 2019, despite the cooling down of the economy.

MORTGAGE MARKETS

Mortgage market growth in 2018 slowed down compared to 2017 following housing construction trends. According to the statistics of Bank of Lithuania, the outstanding mortgage loan amount at the end of 2018 was EUR 7,758 mn, while in 2017 it was EUR 7,173 mn, this constitutes an 8.16% growth, compare with the 2017/2016 growth of 8.94%. New loans issuance in 2018 grew by 9.1% from EUR 1,338 mn to EUR 1,459 mn, with the growth rate gradually decreasing from 9.8% in 2017/2016. The Bank of Lithuania statistics indicate that the average mortgage interest rate increased from 2.01% in 2017 to 2.22% in 2018. The slower growth rate indicates certain lack of consumer confidence and the bank's moves to counteract the heating up of the housing market.

Market growth happened despite the enforcement by Bank of Lithuania of the Responsible Lending Guidelines. The guidelines set a cap on Loan-to-Value ratio of 85%, Debt-to-Income ratio (DTI) of 40% and maximum maturity of 30 years (decrease by 10 years from max available in the market). For DTI calculations banks have to use actual interest rates, but not below 5%, to offset current low rate environment. Just for reference, before DTI introduction, the industry standard was flat DTI amount based on the family size, which varied from bank to bank. 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 2018 as in previous years, deposits remained primary funding source of mortgage lending. Despite majority banks offering close to zero rates for EUR term deposits, the deposits volume in the market continued to grow. The competitive landscape is dominated by SEB, Swedbank, and Luminor (merged DNB and Nordea banks). The above three banks together comprise 97% of the mortgage market, since all of them have strong parent banks and they are in good position to provide relatively cheap mortgage funding in Lithuania based on local deposits and parent funding. Current economic landscape, especially total size of the market and prevailing rates, precludes banks from using innovative mortgage funding instruments like securitisation or covered bonds.

	LITHUANIA 2017	LITHUANIA 2018	EU 28 2018
Real GDP growth (%) (1)	4.1	3.5	2.0
Unemployment Rate (LSF), annual average (%) (1)	7.1	6.2	6.8
HICP inflation (%) (1)	3.7	2.5	1.9
Outstanding Residential Loans (mn EUR) (2)	7,173	7,758	7,251,189
Outstanding Residential Loans per capita over 18 (EUR) (2)	3,069	3,364	17,404
Outstanding Residential Loans to disposable income ratio (%) (2)	27.8	28.1	77.2*
Gross residential lending, annual growth (%) (2)	9.9	9.1	2.34
Typical mortgage rate, annual average (%) (2)	2.0	2.2	2.5**
Owner occupation rate (%) (1)	89.7	n/a	69.3*
Nominal house price growth (%) (2)	8.9	7.3	6.3

* The aggregate EU figure is from 2017.
** Please note that this value is the simple average of the typical interest rate of the EU 28 countries.

Sources:
(1) Eurostat
(2) European Mortgage Federation - Hypostat 2019, Statistical Tables.

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

IN A NUTSHELL

- Sound economic fundamentals, GDP growth at 2.6%, unemployment 5.5%, inflation 2.0% with sustainable public finances.
- In 2018 new all-time high mortgage market outstanding and new issuance.
- High private indebtedness due to housing purchase, prudential borrow-based measures are in discussion.
- Housing supply increased but remained subdued still due to the lack of incentive for land-owners to build new housing.
- Plans in discussion to change urban planning laws, introduce fiscal incentive and provide technical assistance in order to improve housing supply.

MACROECONOMIC OVERVIEW

In 2018 GDP growth rebounded to 2.6% after a deceleration to 1.5% in 2017, due to the recovered dynamism in the financial sector after a subdued period in 2016 and 2017, when large companies ceased activities in place. The main drivers of GDP continue to remain the financial service and also private consumption, which benefitted from improvements in the labour market and tax reforms. Business investment figures decelerated amidst an increase in external uncertainty, while especially construction investment of non-residential buildings remained solid thanks to public infrastructure projects.

Inflation remained virtually unchanged in 2018 around 2.0%, which marked a value slightly above the Euro area average. Main source of inflation was oil prices which is expected to fade away in the near future, and to be replaced by domestic price pressures. In Luxembourg, labour market figures looked solid in 2018, with an employment growth by 3.7% and an ongoing decrease in unemployment reaching 5.5% from 5.6% in 2017.

Public finances remained sound with an estimated surplus in 2018 of 1.8% of GDP and a debt/GDP ratio of 21%.

HOUSING AND MORTGAGE MARKETS

The mortgage market in Luxembourg in 2018 followed a sustained growth path similar to the previous years and reached new all-time high both in outstanding and new lending figures. This evolution rests on sound underlying fundamentals and on the ongoing easing of lending criteria of Luxembourg banks, in line with the same trend observed across the Euro area. The ongoing expansion of the mortgage market, rests also on the fact that interest rates, despite the slight increase over the last couple of years, is around 1.75% in 2018, remaining one of the lowest in Europe.

Eased lending criteria, low interest rates and also growing house prices – in 2018 on average a 7% increase with respect to 2017 – resulted that the Luxembourgish population had the highest per capita indebtedness in the EU for the sixth year in a row, reaching over EUR 68,000 for every resident over 18 years. It is therefore not surprising that according to the latest Eurobarometer housing remains the leading national issue in Luxembourg, which is in countertendency to the leading concerns in other countries where people are worried about unemployment, security and migration. Potential risks in relation to vulnerabilities of the housing market have been counterbalanced by the upcoming introduction of a package of borrower-based prudential measures which entail limits to LTV, LTI, DTI, DSTI and loan maturities. In any case, recent stress tests highlighted the soundness of banks to withstand real estate price shocks and high default rates.

In 2018, the Luxembourg market for mortgage loans has seen the number of fixed-rate loans further increase with respect to the variable-rate loans, thus now reaching nearly 60% of the new issuance. The dynamism of real estate market 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. Moreover, the tax system in the Grand Duchy favours owner-occupied housing as it still allows for mortgage interest deductibility.

On the supply side, the principal factors are related to land availability, to the constraints of permit issuances due to administrative burdens and low housing density, largely a result of the lack of incentive for landowners to build new housing. Also, Social housing supply seems to be insufficient and in need of further incentives. Notwithstanding the increased demand, the number of housing permits reached 5,468 in 2018, increasing by 8.3% with respect to 2017, but still far away from the estimated 6,300 new dwellings needed to keep up with the growing demand. In order to foster housing supply there are plans of changing urban planning laws to increase building areas and develop affordable and social housing. Other measures, such as new tax incentives, land purchase and technical assistance for municipalities are also discussed.

MORTGAGE FUNDING

Mortgages in Luxembourg are principally funded through deposits.

	LUXEMBOURG 2017	LUXEMBOURG 2018	EU 28 2018
Real GDP growth (%) (1)	1.5	2.6	2.0
Unemployment Rate (LSF), annual average (%) (1)	5.6	5.5	6.8
HICP inflation (%) (1)	2.1	2.0	1.9
Outstanding Residential Loans (mn EUR) (2)	30,656	33,064	7,251,189
Outstanding Residential Loans per capita over 18 (EUR) (2)	64,541	68,145	17,404
Outstanding Residential Loans to disposable income ratio (%) (2)	141.5	144.8	77.2*
Gross residential lending, annual growth (%) (2)	1.6	19.7	2.34
Typical mortgage rate, annual average (%) (2)	1.7	1.8	2.5**
Owner occupation rate (%) (1)	74.7	n/a	69.3*
Nominal house price growth (%) (2)	5.6	7.0	6.3

* The aggregate EU figure is from 2017.
** Please note that this value is the simple average of the typical interest rate of the EU 28 countries.

Sources:
(1) Eurostat
(2) European Mortgage Federation - Hypostat 2019, 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:	Five domestically-oriented banks, hold 90% of mortgage loans.
Typical LTV ratio on residential mortgage loans:	The usual maximal LTV ratio amounts to 80%.
Any distinction made between residential and non-residential loans:	Not available
Most common mortgage product(s):	The most common mortgage contract is at a fixed rate.
Typical maturity of a mortgage:	The standard maturity for mortgage loans is 25 to 30 years, while some banks grant credits for up to 35 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 Karol Gabarretta, Malta Bankers' Association

IN A NUTSHELL

- → Malta experienced a high level of economic growth in 2018, mainly driven by the increase in exports and private consumption.
- → Residential property prices continued to increase in 2018.
- → Mortgages for house purchase grew by 8.9% in 2018, totalling over EUR 4.9 bn.

MACROECONOMIC OVERVIEW

Malta's economy continued to experience high growth in 2018, with GDP increasing by 6.7% during the year, from 6.4% and 5.2% in 2017 and 2016 respectively. This rate was more than three times that registered in the Euro area. This growth was underpinned by an increase in exports of goods and services and private consumption expenditure. The increased economic activity was reflected in employment rates, which reached an all-time high of 72.8% during the third quarter of 2018, but over the year they registered an average of 71%. This against a backdrop of an increase of 3 pps from 68% for 2017.

Unemployment levels declined to an historic low of 3.7%, and labour productivity improved by a further 1.2%. The Maltese government sustained its efforts to improve public finances, with gross public debt falling to 53.4% of GDP by the end of 2018, and a budget surplus equal to 2.0% of GDP for the year. Price pressures remained contained, with the inflation rate, based on the Harmonised Index of Consumer Prices, averaging 1.7%.

HOUSING AND MORTGAGE MARKETS

In Malta, the home-ownership rate stands at around 80%. The number of permits issued in 2018 for the construction of dwelling units increased to 12,885 as against 9,822 in 2017 and 7,508 in 2016. Apartments were again by far the largest residential category, accounting for 87% of new building permits issued in 2018. Sales of the three residential property types (apartments, maisonettes and terraced houses) during 2018 totalled 6,447, with a relative value of EUR 1,375 bn.

Residential property prices continued to increase in 2018. According to the Property Price Index for Q1 2018, published by the National Statistics Office and which is based on actual transactions involving apartments, maisonettes and terraced houses, prices increased at an annual rate of around 5.1%, slightly slower than the average 5.3% increase recorded in 2017. 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 and which was recently renewed to run for another term until 31 December 2019;
- The low interest rate environment, which makes property more attractive to purchase;
- Strong growth in disposable income;
- The continued increase in foreign workers which now reached 48,000, and which has created increased demand for the renting or purchase of property. This figure is expected to continue to increase in the coming years;
- The Malta Individual Investor Programme (MIIP) which allows foreigners to acquire Maltese citizenship subject to certain conditions:
  - make a contribution of EUR 650,000 to the Maltese Government, which is deposited in the National Development and Social Fund (NDSF);
  - lease a property for a minimum value of EUR 16,000 per annum, or purchase a property for a minimum value of EUR 350,000, both in Malta and cannot be let or sublet; and
  - acquire EUR 150,000 worth of stocks, bonds, debentures, special purpose vehicles or other investment vehicles as may be identified from time to time by MIIPA.

Mortgages to residents for house purchase totalled EUR 4.9 bn at the end of 2018, up 8.9% from EUR 4.5 bn in 2017. Around 42% of total credit extended by the core domestic banks takes the form of mortgages, and the average loan-to-value ratio stands at around 73%. Average interest rates on new residential loans eased further to 2.71% in 2018.

MORTGAGE FUNDING

Mortgage loans are mainly provided by the core domestic banks, predominantly Bank of Valletta plc and HSBC Bank Malta plc, which account for almost 75% of the domestic retail market (core banks' total assets). This category of banks relies mainly on resident deposits for their funding, with such deposits increasing by 6.6% to EUR 19.5 bn in 2018. With a loan-to-deposit ratio as low as around 61%, deposits provide ample liquidity to the banks, without recourse to securitisation or covered bonds being called for.

	MALTA 2017	MALTA 2018	EU 28 2018
Real GDP growth (%) (1)	6.4	6.7	2.0
Unemployment Rate (LSF). annual average (%) (1)	4.0	3.7	6.8
HICP inflation (%) (1)	1.3	1.7	1.9
Outstanding Residential Loans (mn EUR) (2)	4,548	4,949	7,251,189
Outstanding Residential Loans per capita over 18 (EUR) (2)	11,910	12,481	17,404
Outstanding Residential Loans to disposable income ratio (%) (2)	n/a	n/a	77.2*
Gross residential lending. annual growth (%) (2)	n/a	n/a	2.34
Typical mortgage rate. annual average (%) (2)	2.8	2.7	2.5**
Owner occupation rate (%) (1)	81.3	81.6	69.3*
Nominal house price growth (%) (2)	18.0	5.0	6.3

* The aggregate EU figure is from 2017.
** Please note that this value is the simple average of the typical interest rate of the EU 28 countries.

Sources:
(1) Eurostat
(2) European Mortgage Federation - Hypostat 2019. Statistical Tables.

MALTA FACT TABLE

Entities which can issue mortgage loans:	Main issuers of mortgage loans within the local banking sector are the core domestic banks namely: APS Bank Ltd; Bank of Valletta plc; BNF plc; HSBC Bank Malta plc; Lombard Bank Malta plc, MeDirect Bank (Malta) plc.
The market share of the mortgage issuances:	Not available
Proportion of outstanding mortgage loans of the mortgage issuances:	As an approximation, HSBC Bank and Bank of Valletta (BOV) account for almost 75% of domestic retail banking (total assets) in Malta. All core domestic banks' mortgage and consumer credit loans to household and individuals totalled ERU 5.5 bn as at end 2018, with almost 90% of this figure relating to mortgages. The breakdown of this figure is based on the published financial information of the named Banks: BOV EUR 2.25 billion, HSBC EUR 2.08 bn, APS Bank EUR 816 mn, BNF Bank EUR 276 mn, Lombard Bank EUR 56.4 mn, MeDirect Bank EUR 3.7 mn. The IMF's Financial System Stability Assessment Report published in 2019 revealed that at end-2017 total property-based lending (I.e. to residents and non-residents) for all banks comprised 40% of total loans to customers. For the core domestic banks in Malta, the ratio reached 56%. https://www.imf.org/~/media/Files/Publications/CR/2019/1MLTEA2019003.ashx
Typical LTV ratio on residential mortgage loans:	The LTV ratio for loans backed by residential property was around 73% as of 2018.
Any distinction made between residential and non-residential loans:	The banks in Malta make a clear difference between mortgages for residents and commercial/business loans involving property development. However, the authorities in 2018 announced the planned introduction in 2019 of borrower based macroprudential measures such as caps to loan-to-value (LTV) ratios at origin, stressed debt service-to-income (DSTI) limits, and amortization requirements. These measures distinguish between Category I borrowers who comprise purchasing their primary residential property and Category II borrowers who comprise purchasing their second or additional residential property or buy-to-let properties.
Most common mortgage product(s):	In Malta borrowers can choose both fixed and variable rate mortgages, with capital and interest payable over the term of the loan. A moratorium on capital repayments can normally be agreed for an initial number of years, during which interest only is repaid.
Typical maturity of a mortgage:	The maximum maturity granted in Malta is linked to the retirement age. 40-year mortgages are only issued on condition that mortgage is repaid before the borrower reaches the age of 65.
Most common way to fund mortgage lending:	Mortgage funding in Malta remains mainly deposit-based. Core domestic banks, with assets of about 1.96 times (in 2018) GDP, provide around 98% of bank lending to residents in Malta, and collect around 96% of resident deposits (in 2017).
Level of costs associated with a house purchase:	In Malta, there is a 5% Duty on Documents (Stamp Duty) on purchases and one final withholding tax of 8% on the value of the property when sold. 5% Duty on Documents calculated on the purchase price of the immovable property. If the Buyer is a European Union Citizen declaring on deed that he shall reside in the property being purchased as his sole ordinary residence, then the preferential rate of 3.5% is applied on the first EUR 150,000 of the price. In respect of transfers of immovable property, made on or after the 5th November 2013 but before the 1st July 2015, no duty shall be chargeable on the first EUR 150,000 of the aggregate value of the consideration paid for the acquisition of such property, provided that this is the first immovable property acquired inter-vivos by such person. More information is found on http:// www.notariesofmalta.org/taxinfo.php With effect from 1 January, 2015 the current system consisting of both a 12% final withholding tax on the sales value or 35% tax on the profit or gain was replaced by one final withholding tax of 8% on the value of the property sold subject to the following exceptions: • transfers of immovable property acquired prior to 2004 are subject to a final withholding tax of 10% of the sales value (down from 12%); • transfers of immovable property by non-property traders within the first five years of acquisition are subject to a final withholding tax of 5% of the Sales Value.
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; (h) Redemption of Ground Rent, (i) Equity Sharing Scheme which applies for persons over the age of 40, who intend to buy their residence by purchasing at least 50% of the property whilst the rest will have to be purchased by them at later stage (j) a scheme which includes an allocation of funds specifically for the restoration of streetscapes that are located within Urban Conservation Areas (UCAs). As in previous years, the scheme is also open to owners of privately owned residential properties situated within Urban Conservation Areas (UCAs) and Grade 1 and Grade 2 scheduled buildings (k) a Scheme to entertain proposals from owners of vacant residential property who wish to lease their property to the Housing Authority for the purpose of social housing. The Maltese Housing Authority has embarked on a EUR 50 mn project which involves a EUR 25 mn financing from the European Investment Bank. The project concerns the financing of investments in social housing in the years 2016-2020 foreseen by the country's social housing programme that will be implemented by the national housing authority. EIB funding will concern retrofitting and new construction of social housing and associated infrastructure facilities. The housing investments will need to satisfy the EIB's eligibility criteria for urban renewal and sustainable cities and communities. The project will contribute to the alleviation of the current shortages in social housing supply in Malta. The project is expected to contribute to (i) the reduction of the shortage in social housing supply in Malta; (ii) improving the quality of existing social housing stock; (iii) potentially reducing energy consumption of the existing building stock; (iv) promoting social inclusion of low-income households; (v) the implementation of the housing strategy developed by Maltese municipalities. Housing construction typically generates significant employment both directly through construction and indirectly through consumables purchased by residents. The project therefore has potential to contribute significantly to sustainable growth and employment. *Source: EIB web site: https://www.eib.org/en/projects/pipelines/all/20150802*

The Netherlands

By Marcel Klok (ING), Ruben van Leeuwen (Rabobank), Paul de Vries (Land Registry) and Nico de Vries (ING)

IN A NUTSHELL

- → Real GDP rose 2.6% in 2018, compared to a 3.2% increase in 2017;
- → Unemployment rate dropped further to 3.8%;
- → Mortgage interest rates stayed stable at a low level;
- → Growth of housing markets in the big cities slowed down.

MACROECONOMIC OVERVIEW

In 2018, the economy expanded at a continue high pace: real GDP rose by 2.6%. The increase was almost entirely driven by domestic demand. Primarily due to very strong employment growth, private consumption increased by 2.5%, the strongest since 2000. Gross fixed capital formation grew with a decent 4.3%, to a large extend driven by residential investment (+8% year-on-year) and other buildings and structures (9%). Investment by businesses rose by a normal 3.6%, while public investment increased with a mediocre 1.7%. Public consumption increased by 1.4% and thereby fell short of spending intentions, due to delays in infrastructure projects and difficulties to hire personnel. Net exports contributed positively, adding 0.3 pps to GDP growth, on the back of moderate export growth (2.7%) and similarly strong imports (2.8%) development.

In terms of sectors, the semi-public sector provided the largest contribution (0.4 pps) to growth. In the commercial sector, manufacturing, especially firms producing machinery and transport equipment, wholesale trade and temporary employment agencies provided a substantial contribution to growth.

Continue strong output growth induced businesses to demand more labour. Employment (total hours worked) expanded by 2.4% in 2018, the strongest increase since 2007. The unemployment rate declined from 4.9% in 2017 to 3.8% in 2018. Wages accelerated at still a moderate pace, providing little inflationary pressure. Core inflation increased only slightly, from 0.8% to 1.0%. Meanwhile, the headline inflation rate (as measured by the Consumer Price Index) rose from 1.4% in 2017 to 1.6% in 2018, primarily as the result of higher prices for energy and higher rent. Industrial producer prices rose 2.8%, after an increase of 4.6% in 2017.

The government budget balance increased from 1.2% of GDP in 2017 to 1.5% in 2018. Increased economic activity boosted tax income, while discretionary spending increased. Excluding interest payments, the surplus was 2.5% of GDP. Government debt continued to fall, from 56.9% of GDP in 2017 to 52.4% in 2018.

HOUSING AND MORTGAGE MARKETS

HOUSING MARKET

After the 2017 sales record, 218,366 homes were sold in 2018, a decrease of nearly 24,000 homes. The west of the country, with the Dutch big cities Amsterdam, Rotterdam, Utrecht and The Hague in particular, showed lower numbers. For example, Amsterdam experienced the worst year for sales since 2013. Although fewer homes were sold in 2018 in most of the other provinces, numbers were still high compared to the years such as those before the crisis.

Because many households have moved in recent years, the supply of homes for sale is drying up. This creates a shortage on the Dutch housing market, resulting in continuous substantial price increases. Owner-occupied homes were on average 9% more expensive in 2018 for the Netherlands as a whole, which is the largest price increase over the past decade. We see large differences between urban and rural areas that are mirrored by the development of sales. House prices in the big cities as Amsterdam (12.7%), Rotterdam (14.5%), Utrecht (11.2%) and The Hague (12.5%) rose faster than in rural areas (around 7.5%). This price development reflects the desire of living in the city.

In the Netherlands, the buy-to-let segment has increased sharply since 2013. The national figures do not sufficiently reflect the local effects. The share of buy-to-let in the sale of owner-occupied homes has grown from 2% in 2009 to 5%. But in many cities the percentages of "buying to rent out" are much higher than nationally. In student cities such as Delft, Amsterdam and Groningen there are neighbourhoods where the share of owner-occupied homes purchased by buy-to-let landlords is above 20%. Preliminary research results show that a large concentration of buy-to-let is accompanied by an above-average price increase.

Nearly 66,000 new homes were built in 2018. That is almost 5% more than in 2017 and the highest number after 2009. With this new construction, the total housing stock grew by 0.9%. On January 1, 2019, there were more than 7.8 mn homes in the Netherlands.

MORTGAGE MARKET

The residential mortgage market faced another strong year in 2018. Even though transaction volumes on the housing market hardly grew, total new mortgage originations still amounted to EUR 106 bn, according to the Land Registry. This was an increase of 5% compared to 2017 and the origination volume was the highest since the financial crisis. The main driver behind the increase were mortgage refinancing, as a bigger group of mortgage borrowers took a new mortgage in order to benefit from lower mortgage rates.

According to Statistics Netherlands, total outstanding mortgage increased to EUR 704 bn in 2018, the highest amount ever recorded. Despite these strong numbers, developments on the mortgage market still lagged developments on the housing market and broader economy. Partial repayments and a higher share of amortising mortgages resulted in a slightly further decrease of mortgage debt as percentage of GDP in 2018. In addition, the increase in the origination volume lagged the strong appreciation of house prices, resulting that the average LTV at origination actually declined. Strict legal underwriting criteria, mainly concerning the debt-to-income (DTI), are increasingly resulting in relatively less debt taking when purchasing a home. Indeed, the usage of own funds is on the rise, especially in the bigger cities where the house price appreciation has been the strongest.

The statutory underwriting norms changed only slightly in 2018. The statutory LTV remained capped at 100%, and no change is foreseen in this threshold over the next years. The statutory DTI norms hardly changed in 2018, even though double-income households were allowed to borrow slightly more mortgage debt. The new government has taken further steps to decrease the deductibility of interest payments from taxable income. Currently, the highest deduction rate decreases by 0.5 pps per annum (2018: maximum of 49.5%). From 2020, this reduction speed will be increased, to 3 pps per annum. As of 2023, the maximum deduction rate will remain stable at (roughly) 37.0%, which should be equal to the second-highest marginal tax bracket by then. The effects of this change are expected to remain moderate, as the decrease in tax subsidies will be accompanied by a general decrease in income tax tariffs.

Mortgage interest rates stabilised at low levels in 2018. According to DNB, the average mortgage interest on new originations was 2.4% in December 2018, which about the same level as in December 2017. The average interest rate on outstanding mortgages was 3.1%, down 30 bps compared to 2017. The interest rate term fixings shifted to longer tenors, 10-year, 20 years and increasingly also 30 years fixings were popular amongst mortgage borrowers. On the back of the mortgage reforms in 2013, the majority of new originations is amortising (i.e. full annuity or linear loans). About 1/3 of new originations consists of interest-only loan (parts), of which the favourable tax treatment is still possible for borrowers who had a mortgage pre-2013. These tax benefits are still grandfathered in case of refinancing and/or relocation.

MORTGAGE FUNDING

The high presence of non-bank lenders in the market continued to be visible in 2018, even though banks booked a stable market share during the year. On the basis of the Land Registry data, the market share of banks averaged some 60% in 2018. On a relative basis, insurers continued to originate lower volumes and decreased their average market share to some 16%. Third-party originators, mainly acting on behalf of domestic pension funds, but increasingly also for foreign parties, were responsible for approximately 26% of all new mortgage originations. From the funding side, whole-loan transfers or forward flow mandates continued to dominate, especially on the non-bank side. Banks increasingly opted for the issuance of covered bonds instead of securitisations (RMBS), not only because of more favourable funding conditions in the latter market, but also to have to opportunity to raise long-term funding.

	NETHERLANDS 2017	NETHERLANDS 2018	EU 28 2018
Real GDP growth (%) (1)	2.9	2.6	2.0
Unemployment Rate (LSF), annual average (%) (1)	4.9	3.8	6.8
HICP inflation (%) (1)	1.3	1.6	1.9
Outstanding Residential Loans (mn EUR) (2)	704,792	714,367	7,251,189
Outstanding Residential Loans per capita over 18 (EUR) (2)	51,530	51,785	17,404
Outstanding Residential Loans to disposable income ratio (%) (2)	193.4	187.6	77.2*
Gross residential lending, annual growth (%) (2)	24.7	4.9	2.34
Typical mortgage rate, annual average (%) (2)	2.4	2.4	2.5**
Owner occupation rate (%) (1)	69.4	69.0	69.3*
Nominal house price growth (%) (2)	7.5	9.0	6.3

* The aggregate EU figure is from 2017.
** Please note that this value is the simple average of the typical interest rate of the EU 28 countries.

Sources:
(1) Eurostat
(2) European Mortgage Federation - Hypostat 2019, 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 license from the Netherlands Authority for Financial Markets. There are strict regulations for license holders to protect the consumer.
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:	Unknown; max LTV in 2018 is 100%.
Any distinction made between residential and non-residential loans:	A mortgage is registered at the Kadaster (Land Registry and Mapping Agency). At the time of register the mortgage, it must be specified 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:	30 years
Most common way to fund mortgage lending:	Not available.
Level of costs associated with a house purchase:	2% taxes; 4% other transaction costs (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

IN A NUTSHELL

→ Demand for housing remains strong, there are concerns about growing prices.
→ The construction business posted record results, shortages in land & labour supply have put pressure on developers.
→ Macroeconomic foundations are still strong, but a possible slowdown is looming.

MACROECONOMIC OVERVIEW

GDP

According to Eurostat estimates, real GDP in Poland increased in 2018 by 5.1% (in comparison to 4.8% in 2017).

The main factor of economic growth in 2018 was domestic demand. The growth rate of domestic demand during the whole of 2018 amounted to 5.3%, and in the fourth quarter it increased by 4.2%.

Among the components of domestic demand, gross fixed capital formation, i.e. investment expenditure, registered the strongest growth, increasing by 7.3% in 2018, although this rate should be considered unsatisfactory, especially considering the low investment rate in the economy. The relatively low investment dynamics are largely influenced by the problems of enterprises acquiring new employees.

Total gross value added in the national economy in 2018 increased by 5.0% y-o-y versus 4.7% in 2017. Industrial gross value added was 5.5% higher than in 2018 compared with the increase of 5.2% in 2017. Gross value added in the construction sector recorded a 17% increase in comparison to the year before, when an increase of 6.5% was registered.

The annual average unemployment rate in Poland amounted to 3.9% in 2018 (as compared to 4.9% in 2017).

INFLATION

At the end of December 2018, the inflation level in Poland amounted to 1.1% y-o-y (as compared to 2.1% in Dec. 2017), and the average annual inflation rate amounted to 1.2% y-o-y in 2018 (1.6% in 2017). In 2018, transport prices increased the most (by 4.2%), the prices of hotel and restaurant services (by 3.0%), as well as food and non-alcoholic beverages (by 2.6%). On the other hand, the prices of clothing and footwear fell (by 3.6%) and communications (by 1.8%).

According to the forecasts, in 2019 inflation will not exceed the inflation target (set by National Bank of Poland) of 2.5%.

PUBLIC FINANCE

In 2018 Poland's budget revenues amounted to PLN 380.1 bn (increase of 8.5% y-o-y in nominal terms), and expenditures rose to PLN 390.5 bn (increase of 3.9%). The general government deficit in 2018 stood at 0.4% GDP (1.7% in 2017) and general government debt amounted to 48.9% GDP (from 50.6% in 2017).

HOUSING AND MORTGAGE MARKETS

HOUSING MARKET

In 2018 the residential construction sector once again recorded impressive results. All the main indicators of housing market supply, namely number of dwellings completed, number of building permits, number of notified construction design and the number of construction starts, increased in 2018.

Nearly 185,000 dwellings (3.6% more than in 2017) were completed in 2018. The usable area of flats completed for use amounted to 16.7 mn m², or 1.1% more than in the same period last year. In the same period, the average usable floor space per dwelling decreased by 2.2 m² – to the level of 90.5 m² (136 m² for houses, 53 m² for flats). This was an attempt to increase the availability of housing for potential buyers, a situation which faces headwinds both with the constantly increasing price development and the already above EU-average overcrowding of Polish dwellings.

In 2018, a permit was issued or a notification with a construction project was submitted for ca. 257,000 dwellings, i.e. 2.7% more than in the corresponding period of the previous year. Construction began for nearly 222,000 dwellings (7.7% more than in the previous year).

These results exceeded even those from record years of 2007-2008, and they occurred despite the existing barriers on the market – esp. an increase in land prices and in cost of housing construction.

MORTGAGE MARKETS

In 2018, nearly 212,600 new housing loans were granted in Poland – the best results of new volume since 2011. At the end of 2018, the total number of active housing loans reached 2,246,296 units and the total balance of debt amounted to over PLN 415 bn.

In 2018, the situation on the mortgage market remained a derivative of the good economic situation in the Polish economy: growth in wages and purchasing power of income, and relatively low unemployment, as well as historically low NBP interest rates, resulting in low cost of mortgage lending.

House prices continued to rise, but the pace of growth decelerated in the second half of the year. While in nominal terms, house prices are approaching the peak levels recorded in 2008, they are still lower in real terms due to the increase in wages recorded in Poland in the last 11 years. A growing discrepancy between the offered and transactional prices can be observed, which proves that buyers are not accepting the growing property prices. The inventory of unsold finished apartments on the primary market at the end of 2018 was about 50,700.

In 2019, the market situation will be shaped primarily by the economic slowdown, possible demand reduction, and rising production costs.

The government-subsidised "Flat for youth" housing scheme ceased to exist in September 2018. The previous programme, which aimed at supporting mortgage lending, will be replaced by new initiatives – supporting mainly the rental market. Worth mentioning are: (i) The "Flat Plus" programme - a governmental programme for building apartments for rent (maybe with ownership option) on State Treasury and local government land; (ii) The "Flat for Start" programme – rent subsidies for the first tenants of new dwellings built in the context of cooperation between investors and municipalities. Due to their relatively small scale, so far the new programmes have had no influence on the market.

MORTGAGE FUNDING

The main funding instruments for mortgage loans in Poland are deposits and covered bonds, with deposits being the main funding source, even for long-term mortgage loans. The outstanding volume of Polish covered bonds amounted to est. PLN 21.5 bn, and new issues in 2018 amounted to PLN 5.35 bn.

According to the law, only specialised mortgage banks are eligible to issue covered bonds in Poland. There are currently 4 issuers active: mBank Hipoteczny S.A., PKO Bank Hipoteczny S.A., Pekao Bank Hipoteczny S.A, and ING Bank Hipoteczny S.A. – the last one being the 2018 newcomer to the market. At least two other banking groups are in the process of establishing mortgage banks.

	POLAND 2017	POLAND 2018	EU 28 2018
Real GDP growth (%) (1)	4.6	5.1	2.0
Unemployment Rate (LSF). annual average (%) (1)	4.9	3.9	6.8
HICP inflation (%) (1)	1.6	1.2	1.9
Outstanding Residential Loans (mn EUR) (2)	93,111	100,579	7,251,189
Outstanding Residential Loans per capita over 18 (EUR) (2)	2,991	3,234	17,404
Outstanding Residential Loans to disposable income ratio (%) (2)	33.6	246.0	77.2*
Gross residential lending. annual growth (%) (2)	13.9	10.4	2.34
Typical mortgage rate. annual average (%) (2)	4.4	4.4	2.5**
Owner occupation rate (%) (1)	84.2	84.0	69.3*
Nominal house price growth (%) (2)	4.7	11.2	6.3

* The aggregate EU figure is from 2017.
** Please note that this value is the simple average of the typical interest rate of the EU 28 countries.

Sources:
(1) Eurostat
(2) European Mortgage Federation - Hypostat 2019. 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 99.9% – banks; 0,1% – credit unions.
Typical LTV ratio on residential mortgage loans:	41.66% of new loans granted in 2018 had LTVs over 80%; 38.15% – LTVs between 50-80%; 6.27% – LTVs between 30-50%; 13.92% – 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 yearly data, around 62 - 64% of new lending belongs to that range in recent years).
Most common way to fund mortgage lending:	Banking deposits and 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 was "Flat for youth". The basic subsidy amounts to 10% of the construction value of the apartment up to 75 m² (100 m² 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 m² for flats and 110 m² 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. The "Flat for youth" programme was finished in Sept. 2018. New forthcoming government-supported programmes are focused on supporting rental market, not purchases.

Portugal

By Banco Montepio

IN A NUTSHELL

- → Portuguese GDP grew by 2.1% in 2018, 0.3 pps above the Euro area growth, and maintained a sustained downward trend of unemployment, a significant reduction in public debt and a sharp reduction in the budget balance.
- → 2018 continued the uninterrupted cycle of five years of year-on-year appreciation (since the end of 2013), which intensified sharply from mid-2017, a period during which residential prices recorded higher annual increases of 10%. As a result of this recovery, house prices in Portugal have increased by 46% compared to mid-2013, when they reached their lowest point.
- → Real estate investment in Portugal grew 54% in 2018, compared to 2017, to EUR 3.5 bn, reflecting the dynamism of the market.
- → Interest rates, activity growth and the extent of the limits place on the criteria for granting housing loans are the variables with the greatest impact on the growth of housing prices.

MACROECONOMIC OVERVIEW

In 2018, GDP grew by 2.1% compared to 2.8% in 2017, representing a deceleration of 0.7 pps Portuguese GDP growth in 2018 was 0.2 pps above the Euro area growth, and Portuguese GDP closed last year 1.0% above that recorded in 2008 [1.5% at 1Q2019], the year in which the last international economic and financial crisis began[1].

Portuguese economic growth was accompanied by a sustained downward trend of unemployment, a significant reduction in public debt and a sharp reduction in the budget balance.

Economic activity was supported solely by domestic demand, with a strong positive contribution of 2.8 pps, with the acceleration of this contribution (+3.2 pps in 2017) mainly reflecting the strong slowdown in fixed capital investment (GFCF), as private consumption and public consumption accelerated and investment in stocks saw the contribution increase.

Gross fixed capital formation increased by 4.4%, a strong deceleration compared to the growth of 9.2% observed in 2017. Despite this decline, GFCF was critical to the growth of the economy in 2018.

The Government debt ratio in 2017 reached 124.8% of GDP, but in 2018 it fell to 121.5% of GDP. In December 2018, the balance of the International Investment position stood at EUR -203.2 bn, corresponding to -100.8% of GDP (-106.2% of GDP by December 2017).

A decrease in the unemployment rate of 2.0 pps was registered, declining from 9.0% in 2017 to 7.0% in 2018, 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 Harmonised Index of Consumer Prices (HICP), was 1.2% in 2018 (+1.6% in 2017 and +0.6% in 2016).

The savings rate was 4.6% in 2018 (4.7% in 2017). In 2018, the non-performing loans ratio of households and enterprises declined, although they remained at high levels (5.1% and 18.5%, respectively; 7.1% and 25.2% for 2017).

HOUSING AND MORTGAGE MARKETS

OVERVIEW

Since the period of crisis and the financial assistance programme, the real estate market has been recovering. This recovery is reflected in the evolution of residential real estate prices, which after registering a cumulative decline of 13% in nominal terms between 2008 and 2013 (20% in real terms), have recovered an average of 5.3% per year since 2014 and already surpassed the levels prior to the crisis. In monthly terms, prices ended the year with stable figures, showing a residual difference of -0.1% in December compared to the previous month. In general terms, 2018 continued the uninterrupted cycle of five years of year-on-year appreciation (since the end of 2013), which intensified sharply since mid-2017, a period during which residential prices recorded higher annual increases to 10%. As a result of this recovery, housing prices in Portugal have increased by 46% compared to mid-2013, when they reached their lowest point.

The dynamism of this sector is also reflected in the evolution of real estate sales, which have increased by double digits since the beginning of 2015. According to the National Statistics Institute (INE) in 2018 recorded 178,691 housing transactions by households, a volume that grew 16.6% over 2017. In value, growth was 24.4% and reached EUR 24.1 bn. Metropolitan Area of Lisbon concentrated 48% of the transactions. This behavior has contributed to a more positive internal economic environment, reflected in the good performance of the labour market, increased income and the very positive evolution of confidence indicators. The demand from non-residents has also stimulated the market as a result of the Visa Gold regime, implemented in 2009 with the aim of attracting investors and non-European professionals.

In the office area, in Lisbon and Porto, the consulting firm CBRE estimates that 290,000 m² of business space was occupied in 2018, a historical value in Portugal. In the area of commerce, the consultant estimates a continuous increase in the value of rents in the most consolidated areas, with prime income in street commerce increasing by 5% in Lisbon and 10% in Porto. The recovery of the real estate market is also a consequence of the good performance of the tourism sector, stimulating the demand of real estate by investors to cope with the growing demand for accommodation. CBRE affirms that the market anticipates a stabilisation in hotel demand in 2019, after successive very high growth in recent years. Even so, 900 new rooms are planned for Lisbon and 650 for Porto. A much higher number than in 2018, when about 780 new rooms were opened in 4 and 5 star hotels in the city of Lisbon and another 430 in Porto. As a result, there are significant differences in property prices in premium areas, such as historic city centers (Lisbon and Porto) or in areas with more tourist tradition (Algarve) and

[1] Figures at constant prices.

the rest of the country. The revival of the longer term rental market (domestic and foreign students, younger people who advocate greater mobility) has also supported the demand for residential real estate. The increase in house prices in Lisbon follows the trend of the main European capitals and is significantly higher than the increase in disposable income. Home prices in the Portuguese capital rose 49.23% between 2012 and 2018, while disposable income rose 9.23%, according to a report by Moody's Investors Service published on May 30, 2019.

The proportion of households (owners, with mortgage or loan) that allocate more than 40% of their disposable income to housing costs stood at 3.9% at the end of 2017 according to Eurostat (4.5%, for the Euro area average). Similarly, the ratio of property transaction prices to average gross disposable income (2017) is about 7.5%, a level that is similar to the average in the last eight years (7.0%). An alternative indicator to assess the demand for residential real estate is the level of domestic debt. Despite the strength of mortgage credit for residential real estate, household debt was at 70.6% of GDP in December 2018 and continues to decline from its peak level (reached in 2013), although it remains above the euro area average (58.4%, in 2017).

At the same time, the current momentum in the domestic real estate market is not being fueled by an increase in household leverage. In fact, in December 2018 the pace of the year-on-year decline in total credit for house purchase was maintained at -0.8%, representing the lowest decrease since September 2011 (-0.6%). It is also important to note that although most mortgages have been granted at a variable rate (83.2% in 2017, according to Banco de Portugal), the impact of higher interest rates on households' financial burdens should be contained as the ECB is expected to normalise its monetary policy very much gradually.

HOUSING PRICE INDEX (IPHAB)

The average annual rate of change reached by the Housing Price Index (IPHab) in 2018 was 10.3%, 1.1 pps higher than that observed in 2017. In terms of segments, both experienced an increase in the average price level in 2018 and accelerated to 11.0% in the case of existing housing (+10.4% in 2017) and 7.5% in new housing (+5.6% in 2017). In 2018, 178,691 dwellings were transacted, the highest value ever. Compared to the previous year, 25,399 homes were sold (+16.6%). Existing housing continued to account for most of the transactions carried out over the past year, with its relative weight in total transactions increasingby 0.7 pps to 85.2%. This increase is explained by the fact that there was a 17.5% increase in the number of transactions of existing housing, a much higher rate than for new housing (+11.6%). This last variation represents, however, the largest annual increase in the available series. The value of house sales in 2018 exceeded EUR 24.1 bn, which corresponds to an increase of more than EUR 4.8 bn (+24.4%) compared to the previous year. The value of house sales rose from EUR 9.5 bn (5.5% of GDP) in 2014 to EUR 24.1 bn in 2018 (12.0% of GDP), which translates into an average annual growth of 26.0%. For the same period, the number of transactions increased by 20.7% in annual average terms.

DETERMINANTS OF HOUSING PRICES IN PORTUGAL

Real estate investment in Portugal grew 54% in 2018, compared to 2017, to EUR 3.5 bn, reflecting the dynamism of the market, according to a statement from CBRE. Thus, according to the consultant, "this growth reflects the dynamism of the national market, driven both by Portugal's late entry into the investment cycle after the global economic and financial crisis, and by the transactions of offices, shopping malls and the portfolio real estate of the insurer Fidelidade, mostly residential, composed of 277 assets". Interest rates, activity growth and the degree of restriction of the criteria for granting housing loans are the variables with the greatest impact on the growth of housing prices. Limited supply alongside strong domestic and foreign demand is fueling house price inflation. Robust economic growth, strong job creation, and low interest rates are underpinning demand for housing. Foreign demand remains an important market driver, supported by affordable prices and special incentives, such as the "golden visa" and non-habitual resident programmes. Prices will continue to rise, but now with a slower progression. This idea is based on the results of the Portuguese Housing Market Survey, which points to a "progressive smoothing of the rhythm" of rise. On the one hand, because of the price level that has already been reached and which starts to have a demand for caution on the part of demand. On the other hand, since the lack of supply is the main basis for sustaining this increase, as new stock enters the market, growth will tend to soften. The Urban Lease Law (Lei do Arrendamento Urbano), approved in August 2012, contributed to the sale of houses. Although the stated objective was the stimulus to urban lease, the result, however, has been the acceleration of the term of the lease contracts with a view to the sale of real estate or new uses, such as Local Accommodation and according to Moody's study (May 2019), the demand for (temporary) leasing of tourists in urban areas is boosting the real estate market. Among the main cities, Lisbon, Paris and Amsterdam have the highest percentages of housing used by Airbnb.

THE AVERAGE VALUE OF BANK APPRAISALS ON HOUSING

According to INE (Portuguese Statistics), the average value of bank appraisals on housing for the year 2018 was EUR 1,192 per m², an increase of 5.8% compared to the previous year. An increase in values in all regions was observed, with Algarve and the Northern region presenting the highest variations (+7.4% and +7.3%, respectively). By type of accommodation, in the year 2018, the average bank valuation increased by 6.1% in apartments and 4.7% in housing, for average values of evaluation of EUR 1,249 per m² and EUR 1,095 per m² (EUR 1,177 and EUR 1,046 in 2017, by the same order). According to the index of the average value of bank appraisals on housing, in November 2018, Algarve, the Lisbon Metropolitan Area, the Autonomous Region of Madeira and the Alentejo Litoral presented m² values higher than the national average. The values in the Algarve and in the Lisbon Metropolitan Area were, respectively, 31% and 24% higher than that registered for the country. The region of Trás-os-Montes on the other hand presented the lowest value in relation to the mean (-32%).

MORTGAGE MARKETS

During the year 2017, Banco de Portugal reported that 77,506 new housing loan agreements were signed, 32.3% above that of 2016. In fact, more people are getting credit today than in the post-crisis period. If we look at the number of houses sold in Portugal in 2017 (153,292, according to INE data, and 178,691 in 2018), we conclude that only 50.6% of the homes sold are bought using housing loans. This figure is far below the 92% registered in 2009. At that time, almost all housing transactions were financed, while now only slightly more than half are. Additionally, if we compare the credit granted with realised sales, but in value, we conclude that the leverage of the sector is even lower. In 2017, a total of EUR 7.7 bn was granted, compared to approximately EUR 19 bn traded, i.e. only 40.5% of the volume of transactions in housing in Portugal was leveraged, which is also well below the 66% registered in 2009. The leverage in value is much lower than the number of transactions, mainly due to the weight of sales made to foreigners, typically of a higher value and not leveraged. If, on the one hand, foreign demand for housing in Portugal has contributed to strong price growth, it is also fair to say that it contributes to lower leverage in the sector. Despite the tightening rules that have been applied by the Banks and the restrictions imposed by Banco de Portugal, namely at the level of the effort rate, credit continues to rise. At the end of 2017, housing loans accounted for 75.9% of the portfolio, slightly above its weight at the end of 2016 (75.4%) and the average loan-to-value of the market is at 70%, very close to the 73% registered in 2009, which greatly contributes to the growth of the average value of banks assessment.

A reference should be made in this respect to the IMF's assessment of Portuguese banks in the final declarations for the conclusion of the 2018 Consultation on Article IV (05/29/2018) and reiterated in the final report of the Consultation (09/12/2018), which considers that during the last year there have been significant improvements in capital ratios and in the level of non-performing loans which fell by EUR 13 bn since peaking in mid-2016. However, the IMF also notes that the real estate sector is aggravating the prospects for the evolution of the financial sector. In fact, once again, along with other international institutions, the IMF warns of rising house prices, which should be monitored, given the weight of housing credit on total credit granted by banks. More recently, on May 17, in the Staff Concluding Statement of the 2019 Article IV Mission, the IMF underlined that supervisors should maintain the focus on furthering ongoing bank balance sheet repair. According to the IMF, bank capital ratios have been boosted by the 2017-18 capital augmentations, profitability has improved, and non-performing loans have markedly decreased, but banks continue to face challenges. Although it remains below Euro area standards, asset quality has steadily improved, with the non-performing loan (NPL) ratio declining to 9.4% at end-2018, with a provisioning ratio above 50%. The banking system has reported positive profits since the beginning of 2017, but these remain low relative to pre-crisis levels and below the cost of equity. The mission recommends that supervisors ensure that banks continue to follow through on their NPL reduction targets and strengthen their corporate governance, internal controls, and risk management, and encourage banks to step up efforts to improve operational efficiency and profitability. An effective financial supervision model must ensure the independence of supervisors, support timely and informed decision making, be cost efficient, and provide a leading role for the central bank in macroprudential matters. One of the main goals of the financial supervision reform bill before Parliament is to enhance coordination among the three sectoral supervisors. The bill has features that could improve the current system. Nevertheless, the three national sectoral supervisors (Banco de Portugal, Comissão do Mercado de Valores Mobiliários, and Autoridade de Supervisão de Seguros e Fundos de Pensões) have raised legitimate concerns regarding the bill that merit careful consideration in Parliament before this bill is passed into law.

FURTHER IMPORTANT EVOLUTION

At the end of the first half of 2018, Portuguese banks continued to concentrate a significant portion of their exposures in real estate assets (38.9% of total assets, 1.5 pps below of the value observed at the end of 2016). This exhibition is mainly of an indirect nature, in particular through the housing guarantees associated with mortgage loans, which represent approximately 28% of total assets.

Another relevant component of banks indirect exposure to real estate is credit granted to construction companies and real estate activities (5% of total assets in June of 2018), highlighting the reduction observed in this component since 2011 (minus 2.5 pps). It is important to highlight that this sector accounts for 24% of the total loans granted to non-financial enterprises, the volume of NPLs is proportionally higher when compared to the other sectors (approximately 40% of NPLs concern companies in the construction and real estate sectors). The current economic context, particularly the low level of interest rates and the nature of the housing credit market, in particular the interest rate spreads in these contracts, allow for less restrictiveness in the granting of credit.

In this sense, compliance with the Recommendation issued by the Banco de Portugal for new credit agreements with consumers mortgage loans or equivalent and consumer credit, it contributes to a greater resilience of the Portuguese banking system, as well as to the sustainability of the financing granted to households. More specifically, compliance with this measure will in future lead Portuguese consumers and banks to potentially unfavorable effects of a gradual increase in short-term real estate or borrower income, and will mitigate the effects of the reduction of the income of borrowers at the time of retirement.

MORTGAGE FUNDING

From an annual perspective, total assets of the banking system, in 2018, increased by 0.9% over 2017, total loans decreased 0.6% (+0.5% for households), client deposits increased 3.3%, and central bank financing declined 14.8% (to EUR 20.36 bn; EUR 50.72 bn in 2011). In 2018 concerning domestic activity for the five major banks operating in Portugal, the financial margin (the difference between the amount that banks lend and the price at which they are financed) increased more than EUR 170 mn, topping more than EUR 2.9 bn. Although interest rates are still historically low, banks are benefiting from lower financing costs. The improvement in this indicator was a reduction in the cost of funding, namely the reduction in the cost of debt issued and the trend towards a decrease in the remuneration of deposits, notwithstanding the reduction in the yield generated by the credit and securities portfolios. According to the most recent data from Banco de Portugal, the average rate of deposits to individuals was 0.1% in December 2018, 0.04 pps below that observed in December 2017. In addition to the lower cost that banks have with deposits, some banks are also reaping the benefits of increased credit amounts.

	PORTUGAL 2017	PORTUGAL 2018	EU 28 2018
Real GDP growth (%) (1)	2.7	2.1	2.0
Unemployment Rate (LSF), annual average (%) (1)	9.0	7.0	6.8
HICP inflation (%) (1)	1.6	1.2	1.9
Outstanding Residential Loans (mn EUR) (2)	94,093	93,952	7,251,189
Outstanding Residential Loans per capita over 18 (EUR) (2)	11,032	11,007	17,404
Outstanding Residential Loans to disposable income ratio (%) (2)	71.1	68.5	77.2*
Gross residential lending, annual growth (%) (2)	42.6	19.1	2.34
Typical mortgage rate, annual average (%) (2)	1.6	2.6	2.5**
Owner occupation rate (%) (1)	74.7	74.5	69.3*
Nominal house price growth (%) (2)	13.2	13.1	6.3

* The aggregate EU figure is from 2017.
** Please note that this value is the simple average of the typical interest rate of the EU 28 countries.

Sources:
(1) Eurostat
(2) European Mortgage Federation - Hypostat 2019, Statistical Tables.

PORTUGAL FACT TABLE

Entities which can issue mortgage loans:	Credit institutions (according to Decree-Law No. 349/98 of Nov/11 and within the limits established in articles 3 and 4 of DL No. 34/86, of Mar/3 for commercial and investment banks). The types of credit institutions and respective activities are defined by the Legal Framework of Credit Institutions and Financial Companies (articles 3 and 4).
The market share of the mortgage issuances:	The six largest institutions concluded 82% of new mortgage contracts, which represent 86.1% of the contracted amount, comparing with 84.5% and 86.7%, respectively, in 2016. At December 31, 2017, the ten largest credit institutions had 96.7% of mortgage contracts and 95.4% of outstanding mortgage amount. *(Source: Banco de Portugal, Retail Banking Markets Monitoring Report 2017)*
Proportion of outstanding mortgage loans of the mortgage issuances:	The seven largest institutions in Portugal are Millennium BCP, CGD, BPI, Santander Totta, Novo Banco, Montepio and Crédito Agricola, and hold: CGD (26.1%); Millennium BCP (18.3%); Santander Totta (20.7%); BPI (11.9%); Novo Banco (10.2%); Montepio (7.1%); Crédito Agricola (3.0%). *(Source: Annual Report for each Bank; Banco de Portugal, EMG for the sector)*
Typical LTV ratio on residential mortgage loans:	Since July/1/2018, new residential credit agreements should observe the following LTV limits: 90% for credit for own and permanent residence; 80% for other purposes than the latter; 100% for purchasing immovable property held by the credit institutions themselves and for property financial leasing agreements. This recommendation entered into force on Jul/1/2018. *(Source: Banco de Portugal, Macroprudential measure within the legal framework of credit for consumers)*
Any distinction made between residential and non-residential loans:	Loans for residential purpose comprise (i) mortgage loans, which include credit agreements for the acquisition or construction of permanent, secondary or for-rental housing, and (ii) other related-mortgage loans, which comprise loans celebrated with individuals that are subject to the mortgage loans rules. *(Source: Banco de Portugal, Bank customer website)*
Most common mortgage product(s):	The most common mortgage products are written with variable interest rate indexed to Euribor rate.

Typical maturity of a mortgage:	Mortgage loans granted in 2017 had an average maturity of 33.3 years (+6 months per contract compared to 2016), 13 months higher comparing to the contracts portfolio. The maximum term contracted in 2017 was 53 years, higher than the verified during the previous four years. *(Source: Banco de Portugal, Retail Banking Markets Monitoring Report 2017 & Macroprudential measure within the legal framework of credit for consumers)*
Most common way to fund mortgage lending:	On the banks perspective, retail and wholesale funding are the main sources of funding of the national banking system, with deposits becoming the main source (LTD ratio of 89% as of December 2018). On the customer perspective, commercial banks are the most common providers of mortgage. *(Source: Banco de Portugal, Portuguese Banking System: latest developments, 4th quarter 2018)*
Level of costs associated with a house purchase:	Banks usually charge commissions related to the process (study and opening), which often include asset-evaluation costs. There are also other bureaucratic charges related with the necessary procedure (at the Land Registry, Municipality Council and Notarial Office), and specific taxes related with house transaction, as the municipal taxes on real estate (IMI) and 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 Nov/9).

Romania

By Cristian Dragoș and Ștefan Dina, Romanian Association of Banks

IN A NUTSHELL

- → The stock of housing loans increased by 11% y-o-y;
- → The price of residential properties increased by 5.6% y-o-y;
- → The rising interest rates imposed prudency in assessing households' debt servicing capacity.

MACROECONOMIC OVERVIEW

For Romania, 2018 was the eighth consecutive year of growth after the recession of 2009-2010. The annual growth rate of GDP in 2018 stood at 4.1% and it was the seventh highest rate in the EU. GDP reached EUR 202.9 bn and GDP per capita (EUR 10,300) was 33% of the EU average. All sectors, with the exception of construction contributed positively to growth. Gross value added in construction declined by 5.6% y-o-y mainly due to the abrupt decline in residential construction. On the demand side gross capital formation had the fastest dynamics growing 9.6% y-o-y (entirely due to the accumulation of inventories since gross fixed capital formation declined by 3.2% y-o-y) and contributed to the overall GDP growth by 2.2 pps. Consumption was up by 4.5% and contributed to the overall GDP growth by 3.6 pps. Net exports had a negative contribution to the overall GDP growth (-1.7 pps) almost 3 times higher than in 2017 (-0.7 pps).

The employment rate increased to 64.8% gaining one percentage point compared to the previous year. The labour market tightened further, the number of unemployed for each vacant job declined to 6 from 8 in 2017. The wage growth policy continued for the third consecutive year. The mix of an increase in the minimum wage, an increase in public wages and the tightening of the labour market led to a double-digit wage increase for the third consecutive year. Nevertheless, due to the tightened monetary policy stance the end year annual inflation in 2018 was almost the same as in the previous year, close to the upward limit of the targeted interval (2.5% ±1%).

In 2018 the deficit of the general consolidated budget was 3% of GDP up from 2.7% of GDP registered in the previous two years. Nevertheless, the gross public debt to GDP ratio declined for the fourth consecutive year in 2018 up to 35% of GDP, one of the lowest ratios in the EU. The current account deficit increased to 4.5% of GDP from 3.4% of GDP in 2017 and the domestic currency weakened in relation to the Euro.

HOUSING MARKETS

In 2018 the increase in the number of finished dwellings accelerated. The number of licenses issued for residential constructions, on the contrary, slowed down to 2.6% y-o-y, especially due to licenses issued in rural areas. The price of residential properties increased by 5.6% y-o-y, with the price of new dwellings increasing faster than the existing ones, respectively 5.9% y-o-y and 4% y-o-y. The price increase was broad based with quite a difference between the prices of apartments located in the capital (up by 4.5% y-o-y) and the ones outside (up by 5.8% y-o-y). The double-digit growth of wages coupled with the double-digit growth of housing loans also contributed to the rise in prices. In 2018 to buy an existing 3-room apartment in Bucharest a worker with an average net salary needed to save for 13 years compared to 33-34 years in 2008. This context led the Central Bank to carefully monitor the evolution of residential property prices, considered since May 2017 as a low systemic risk.

MORTGAGE MARKET

Housing loans stock reached EUR 15.7 bn by the end of 2018, up by 11% y-o-y. The whole increase was due to the expansion of housing loans denominated in domestic currency up by 24.6% y-o-y representing 66% of total housing loans, by the end of the year, while housing loans denominated in foreign currency declined for the fifth consecutive year in 2018 by 8.7% y-o-y. Despite the fact that the compound annual growth rate post-2008 was 11.6%, housing loans to GDP reached just 7.7%, the lowest share in the EU. The Romanian mortgage market is young (the first housing loans were granted in 2001) and still has a significant growth potential. The first reason is that the percentage of population living in overcrowded houses[1] is high (47% compared to the EU average of 15.7% in 2017) and the second reason is that the dwelling stock is old (50% of dwellings are at least 50 years old compared to 35% in the EU).

The average effective annual rate charged for new housing loans denominated in domestic currency rose to 6.2% in December 2018 from 4.83% in December 2017. This increase was also visible in the monthly instalments on outstanding loans in domestic currency: the median instalment on standard housing loans went up by 17%, while that on "First Home" loans went up by 27% (between September 2017 and September 2018 according to the Financial Stability Report of December 2018). To ensure additional protection for debtors, especially low-income ones, by strengthening their debt servicing capacity in the event of adverse conditions, the central bank decided to change lending conditions by setting up a cap on indebtedness. According to the new provisions, starting on 1 January 2019, the maximum level of indebtedness is 40% of net income for domestic currency-denominated loans and 20% for foreign currency-denominated loans. The rising interest rates increased the offer of housing loans with fixed interest rates for up to 10Y, such that by the end of the year the weight of these loans in total new housing loans granted reached 32% compared to 25% in December 2017. Although, the non-performing ratio of housing loans declined further to 2.8% in September 2018 from 3.5% in September 2017, the estimated probability of default on a one-year horizon is expected to rise from 0.35% to 0.7% (Financial Stability Report Dec 2018).

During 2018 according to the bank lending surveys of the NBR while housing loans credit standards were tightened, the evolution of terms and conditions for loans to households for house purchase was mixed. While the debt service to income was

[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.

tightened, the spread between the interest rate and ROBOR 1M was marginally narrowed and other costs than interest payments were marginally reduced. LTV was 75% for the new housing loans during 2018, stable in comparison with 2017, but the LTV for the entire portfolio of housing loans declined gradually from 83% in the last quarter of 2017 to 76% in the last quarter of 2018.

MORTGAGE FUNDING

Deposits are the primary source for mortgage funding. During past years, residents' deposits increased faster than non-government loans such that the loan-to-deposits ratio declined from the maximum 1.3 reached in December 2008 to 0.76 in December 2018. In 2018 residents' deposits increased significantly, by 8.8% y-o-y, the largest rate post-2008, mainly due to the expansion of households' deposits, in particular of foreign currency denominated deposits. Banks' external financing followed a declining trend, the banks' share of foreign liabilities (out of which funding from parent bank represents around 60%) in total liabilities reached 8.6% in December 2018 down from 10% compared to the same period in the previous year.

In 2018, new steps were taken to open the covered bond market in Romania, with the first covered bond issued in Q1 2019 by Alpha Bank Romania.

	ROMANIA 2017	ROMANIA 2018	EU 28 2018
Real GDP growth (%) (1)	6.9	4.1	2.0
Unemployment Rate (LSF), annual average (%) (1)	4.9	4.2	6.8
HICP inflation (%) (1)	1.1	4.1	1.9
Outstanding Residential Loans (mn EUR) (2)	14,262	15,820	7,251,189
Outstanding Residential Loans per capita over 18 (EUR) (2)	895	998	17,404
Outstanding Residential Loans to disposable income ratio (%) (2)	13.3	13.5	77.2*
Gross residential lending, annual growth (%) (2)	7.5	1.2	2.34
Typical mortgage rate, annual average (%) (2)	3.7	5.2	2.5**
Owner occupation rate (%) (1)	96.8	96.4	69.3*
Nominal house price growth (%) (2)	6.0	5.5	6.3

* The aggregate EU figure is from 2017.
** Please note that this value is the simple average of the typical interest rate of the EU 28 countries.

Sources:
(1) Eurostat
(2) European Mortgage Federation - Hypostat 2019, 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 34 credit institutions of which are 7 foreign banks' branches. In addition, according to the National Bank of Romania's General Registry, a total of 152 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 2018/Q4, the average LTV ratio for new loans given in the past three months was around 75%, and the average LTV ratio for the total amount of loans for real estate investments was approximately 76. *(Source: www.bnr.ro Bank Lending Survey December 2018)*
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 79 %. 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.
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.

Slovakia

By Jacek Kubas, European Bank for Reconstruction & Development, EBRD

IN A NUTSHELL

→ Domestic economic growth accelerated in 2018, accompanied by falling unemployment.

→ As regulatory lending standards have been tightened by the National Bank of Slovakia (in July 2018), household debt growth is expected to moderate.

→ Commercial real estate is in an expansionary phase, and credit growth has picked up.

→ New Covered Bond Law entered into force in January 2018.

MACROECONOMIC OVERVIEW

Slovakian real GDP growth accelerated to 4.1% y-o-y in Q4 2018. The main drivers are exports and private consumption which are supported by robust credit growth, a strong labour market and rising wages. Thanks to the favourable economic environment, the unemployment rate fell to 6.5% of the population in Q4 2018.

Slovakia's public debt ratio is consistently among the Central Europe and Baltic (CEB) countries' lowest at almost half the Euro area average. It stood at 48.9% of GDP in 2018 comparing favourably with the 86.9% average in the Eurozone. Public finances are further supported by a solid economic outlook and the persistent effects of ECB monetary policy accommodation, which has helped to push government bond yields to record lows.

Slovakia's public finances are on a sustainable footing, with debt and deficit levels on a trajectory of continued consolidation in the years ahead. Slovakia is among the few European Union countries since 2015 to have met both the deficit (under 3.0% of GDP) and debt (under 60% of GDP) targets laid out by the EU's Growth & Stability Pact, and constitutional debt limits provide an additional policy anchor against fiscal slippage.

Household indebtedness maintained its long-term upward path (increasing by 0.3 pps to 42.2% of GDP in the fourth quarter of 2018). By contrast, corporate indebtedness fell by 0.7 pps, to 53.3% of GDP, since growth in loans to NFCs was lower than economic growth. Despite this fall in corporate indebtedness, Slovakia in 2018 remained among the five EU countries with the fastest growing private sector debt. While most EU countries recorded a decline in their private debt-to-GDP ratio in 2018, Slovakia was one of eight in which the ratio increased.

HOUSING AND MORTGAGE MARKETS

HOUSING MARKET

Slovakia has the fourth highest homeownership rate in Europe (behind Romania, Lithuania, and Croatia). With 89.5% of the population owning houses, Slovakia exceeds by far the EU average (75%).

In the Bratislava region, which has the country's most expensive housing, residential property prices rose by 3.84% y-o-y to EUR 1,945 per m² during the year to Q1 2018, after rising 8.58% a year earlier. All other regions also saw robust house price increases.

- Kosice experienced the biggest rise of about 12.6% y-o-y to EUR 1,073 per m²
- In Trnava, house prices surged 9.7% y-o-y to EUR 1,000 per m²
- In Banska Bystrica, house prices increased 8.5% y-o-y to EUR769 per m²

In certain segments of the market, however, especially in Bratislava, there have been signs of a slowdown in property price growth.

A sustained period of strong credit growth has increased household indebtedness and related vulnerabilities. For more than six years, annual credit growth has been higher in Slovakia than in any other EU country. In that time, the volume of loans has almost doubled. Retail loans have been dominating the domestic lending market and Slovakia has one of the highest growth rates in retail loans in the EU.

MORTGAGE MARKET

The average Loan-to-Value (LTV) ratio for new loans in Slovakia is the fourth highest in the Euro area and one third of new loans to households have an LTV ratio of 80% indicating a relatively elevated share of risky borrowers. This factor combined with excessive household indebtedness and the risk of falling property prices led the National Bank of Slovakia (NBS) to introduce two measures which were phased in starting on 1 July 2018:

- A reduction in the share of new loans that that can have an LTV ratio between 80% and 90% and eventually prohibit the provision of loans with an LTV greater than 90%;
- A reduction in the share of loans that can be provided to borrowers with Debt-to-Income (DTI) ratio of 8 or greater (highly leveraged borrowers).

The share of new loans that may have an LTV ratio of more than 80% will be gradually reduced from 40% to 20%, and the share of new loans that may have a DTI ratio of more than 8 will be gradually reduced from 20% to 10%.

The growth rate for total housing loans has been experiencing abrupt changes due to these one-off market interventions, but nevertheless remains elevated. One such change resulted from market reaction to amendments to NBS Decrees on housing loans and consumer loans, as described above. Despite the central bank's typically gradual approach to the tightening of lending rules, the months before the first phase of tightening took effect were marked by an upsurge in lending activity that continued into the summer months of 2018. Despite the tightening, total housing loans have in recent months remained close to their historical highs for year-on-year absolute growth, and their annual rate of change in September 2018 stood at 11.5%.

According to the NBS, in Slovakia, housing loans are concentrated among lower-income households to a greater extent than in the EU as a whole.

MORTGAGE FUNDING

Deposits are for banks one main source and for the Bausparkassen the only source of funding for their mortgage market activities. Short-term deposits and current checking accounts continue to offer a stable, low-cost source of funding for the banks and Bausparkassen. Banks also fund the lending activities through the issuance of Covered Bonds.

Covered bonds are an attractive funding tool for Slovak banks, because they are typically cheaper for banks than senior unsecured bonds on average in Europe. This is because they are asset-backed and are perceived as lower risk by investors. In August 2017, the Slovakian government passed a resolution adopting a new covered bond law, which came into force in January 2018 and has contributed to increase liquidity in the market and has made covered bonds an even more attractive funding tool for banks.

	SLOVAKIA 2017	SLOVAKIA 2018	EU 28 2018
Real GDP growth (%) (1)	3.4	4.1	2.0
Unemployment Rate (LSF), annual average (%) (1)	8.1	6.5	6.8
HICP inflation (%) (1)	1.4	2.5	1.9
Outstanding Residential Loans (mn EUR) (2)	25,383	25,438	7,251,189
Outstanding Residential Loans per capita over 18 (EUR) (2)	5,726	5,734	17,404
Outstanding Residential Loans to disposable income ratio (%) (2)	50.8	48.0	77.2*
Gross residential lending, annual growth (%) (2)	-18.3	-64.0	2.34
Typical mortgage rate, annual average (%) (2)	1.7	1.8	2.5**
Owner occupation rate (%) (1)	90.3	90.1	69.3*
Nominal house price growth (%) (2)	6.4	5.2	6.3

* The aggregate EU figure is from 2017.
** Please note that this value is the simple average of the typical interest rate of the EU 28 countries.

Sources:
(1) Eurostat
(2) European Mortgage Federation - Hypostat 2019, Statistical Tables.

SLOVAKIA FACT TABLE

Entities which can issue mortgage loans:	Housing finance is raised from (mortgage) banks, Bausparkassen and State funds.
The market share of the mortgage issuances:	No available
Proportion of outstanding mortgage loans of the mortgage issuances:	Banks had a market share of 47%, Bausparkassen of 42% and State Funds the rest 11%.
Typical LTV ratio on residential mortgage loans:	In 2018, the average LTV on newly provided mortgages was just above 70%, but a maximum LTV ratio of 90% is possible (up to 10% of all newly provided mortgage can have an LTV of up to 90%).
Any distinction made between residential and non-residential loans:	No 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:	Mortgage loans have maturity of at least 4 years and maximum of 30 years
Most common way to fund mortgage lending:	Deposits are for the banks the main source of funding and for the Bausparkassen the only source of funding for their mortgage market activities. Banks also fund their lending activities through issuance of Covered Bonds. The current legal reform makes covered bonds an even more attractive funding tool for banks.
Level of costs associated with a house purchase:	The round-trip transaction costs include all costs of buying and then re-selling a property - lawyers' fees (<0.1% of the property value), notaries' fees (around 0.01%) (+20% VAT), registration fees, taxes, agents' fees (3% - 6%).
The level (if any) of government subsidies for house purchases:	Subsidies are provided in two main forms; • Mortgage loan for young – tax break on 50% of interest costs, up to EUR 400 per annum; • State Housing Development Fund - providing loans with lower interest rates (conditions apply).

Slovenia

By Andrea Cirman, University of Ljubljana

IN A NUTSHELL

→ The macroeconomic situation in Slovenia has been favourable, GDP growth was broadly based and it remained significantly above the Euro area average in 2018.

→ The unemployment rate dropped below the estimated long-term (equilibrium) level in 2018 for the first time in five years, which is one of the signs of increased limitations in labour supply.

→ Market confidence on the supply side of the market remained high, and investment in housing gradually increased in 2018.

→ Demand for residential real estate slowed down as a result of diminishing affordability and shortage of marketable real estate.

→ The indicators of housing lending within banks remained stable, and banks made no significant changes to credit standards for housing loans.

MACROECONOMIC OVERVIEW

Although the growth rate of the economy in 2018 stood below its 2017 peak, it was still significantly above the long-term average and above the average in the EU. GDP increased by 4.5% on yearly basis.

The largest contributor to this positive economic development was gross investment with a growth rate of 10.6%, attributable to investment in buildings and infrastructure as well as investment in machinery and equipment. Household consumption with a 2.2% higher contribution remained moderate, despite the favourable situation on the labour market, recent increases in minimum wages and social transfers, and reduced price pressure. Government consumption increased by 2.6% somewhat more than in 2017. Despite the deteriorating situation in the international environment, foreign demand remained high, and resulted in a 7.2% growth on exports. Economic growth in 2019 is expected to exceed 4%, according to forecasts by domestic and foreign institutions.

Last year value added growth remained relatively strong, despite more moderate growth in export-oriented sectors. In 2018 value added rose across all sectors, but its growth was slightly lower than in 2017 (overall 4.5% compared to 5.2% in 2017) (Spring Forecast of Economic Trends, 2019).

Employment remained high last year, and the number of employed persons was the highest recorded so far. Given the increasingly limited labour supply, this was mainly attributable to the hiring of foreign nationals and increased participation in the labour market of those who had previously not been actively seeking employment (Spring Forecast of Economic Trends, 2019). The unemployment rate is falling fast and stood at 5.1% at the end of 2018. According to surveys numerous firms are already reporting difficulties in hiring qualified staff. Growth in the average gross wage averaged 3.4% and real wage growth reached 1.6% y-o-y. Limited supply on the labour market, agreements with the public sector trade unions, increases in minimum wage and the strength of economic growth are expected to contribute to growth in wages also in 2019.

The consumer price index (HICP) increased by 1.9% overall in 2018, and the industrial producer price index was up by 2.1% compared to the previous year.

The fiscal position continued to improve as a result of the favourable cyclical situation and a decline in interest expenditure. The general government sector recorded a budget surplus of 0.7% of GDP in 2018, and government debt stood at 70.1% of GDP at the end of the year.

HOUSING AND MORTGAGE MARKETS

After a record high level of transactions on the real estate market in 2017, the figures decreased by 10% in 2018. The year finished with 33,200 transactions in real estate and a total turnover of EUR 2.3 bn, two-thirds of which account for residential real estate. The predominant part of transactions is conducted on the secondary market as new dwellings contribute only 2% of total volume of transactions in the market. According to the Statistical Office figures, the prices of used flats in Slovenia were up by 11% in comparison to 2017, and 12% in the capital, Ljubljana.

On the supply side, the confidence in the construction sector remained high, as investment in housing has been gradually increasing in 2018 and housing starts were up by almost 17% on yearly basis, although the level of investment remained relatively low and construction firms increasingly faced the shortage of labour force. The number of issued building permits is slowly rising, the number of permits issued grew by 5% and the total number of dwellings permitted in 2018 grew by 16% compared to the year before. However, new supply is predominantly concentrated in the capital city, and outside Ljubljana there are only a few small housing projects on the horizon. The supply of new build housing in the market is therefore still not keeping pace with demand, contributing to further rises in residential real estate prices.

MORTGAGE MARKET

Demand for residential real estate slowed down as a result of diminishing affordability and shortage of marketable real estate. Growth in the stock of housing loans to households remained stable in 2018 at 4.5% and growth in demand for housing loans slowed down too due to affordability issues. Interest rates on housing loans remained relatively low, although a slight increase in average fixed interest rates was experienced. More than half of new housing loans were approved with a fixed interest rate in 2018. The average maturity of housing loans in 2018 was 18.7 years, down from just over 19 years in 2017 (Financial Stability Report, 2018).

Bank of Slovenia estimated that residential real estate prices are still in balance, or slightly overvalued in Ljubljana, and the overvaluation will increase as prices rise. Should price developments remain unchanged, the imbalances and uncertainties in the market will increase (Financial Stability Report, 2018). To ease the pressure on prices and also contribute to affordability and housing options in the market, the National Housing Fund announced it will increase investment in public rental housing for long term renting on a cost rent basis.

Bank indicators regarding lending for housing purposes remained stable, and did not suggest any increased risk to the banking system. In general, banks in 2018 maintained relatively high credit standards and loan terms for new housing loans. The average LTV ratio for new mortgage loans in 2018 remained unchanged at 76%, and DSTI (debt service-to-income) stood at 33% (Financial Stability Review, 2019). In 2018 Bank of Slovenia amended its non-binding macroprudential recommendation for household lending (issued in 2016) that included a maximum recommended level of LTV ratio and of DSTI ratio for housing loans. The maximum LTV ratio recommended is 80%, while the maximum DSTI ratio varies from 50% to 67% depending on the monthly income. According to the latest assessment of compliance with the macroprudential recommendations for the residential real estate market, the average LTV and DSTI have not changed significantly over time and remain within the bounds of the Bank of Slovenia recommendation. The rate of owner occupation is high, while the proportion of real estate owners with a mortgage is among the lowest in the Euro area (Financial Stability Report, 2018).

MORTGAGE FUNDING

The mortgage industry in Slovenia is part of the universal banking services.

Before the economic crisis in 2008, banks were funded by international financial markets as they were needed to fuel high lending activity, however, the situation changed afterwards.

Currently lending activity is predominantly financed by means of rising deposits from the non-banking sector and the LTV ratio for the non-banking sector stabilised at 76.7% in 2018. Liabilities to the Euro system account only for a small proportion of funding as a favourable liquidity position means that the banks do not need these resources. Wholesale funding accounted for 6.4% of all funding in 2018, less than a fifth of its pre-crisis figure. However, the maturity mismatch between investments and funding continues to increase as a result of the lengthening maturities of loans and the simultaneous growth in sight deposits from the non-banking sector, which is introducing a certain level of potential instability into the banking system's funding structure (Financial Stability Review, 2018).

Finally, although legislation allows banks to issue mortgage backed securities, no securitisation of residential mortgages has yet taken place.

References:

Financial Stability Review, June 2019 (2019). Ljubljana: Bank of Slovenia.

Financial Stability Review, December 2018 (2018). Ljubljana: Bank of Slovenia.

Spring Forecast of Economic Trends 2019 (2019). Ljubljana: Institute of Macroeconomic Analysis and Development.

	SLOVENIA 2017	SLOVENIA 2018	EU 28 2018
Real GDP growth (%) (1)	5.0	4.5	2.0
Unemployment Rate (LSF), annual average (%) (1)	6.6	5.1	6.8
HICP inflation (%) (1)	1.6	1.9	1.9
Outstanding Residential Loans (mn EUR) (2)	5,976	6,239	7,251,189
Outstanding Residential Loans per capita over 18 (EUR) (2)	3,512	3,669	17,404
Outstanding Residential Loans to disposable income ratio (%) (2)	23.2	22.8	77.2*
Gross residential lending, annual growth (%) (2)	5.6	-4.5	2.34
Typical mortgage rate, annual average (%) (2)	2.5	2.4	2.5**
Owner occupation rate (%) (1)	75.6	75.1	69.3*
Nominal house price growth (%) (2)	8.1	9.6	6.3

* The aggregate EU figure is from 2017.
** Please note that this value is the simple average of the typical interest rate of the EU 28 countries.

Sources:
(1) Eurostat
(2) European Mortgage Federation - Hypostat 2019, Statistical Tables.

SLOVENIA FACT TABLE

Entities which can issue mortgage loans:	Commercial banks, savings banks, and the National Housing Fund.
The market share of the mortgage issuances:	Data on market share is not available.
Proportion of outstanding mortgage loans of the mortgage issuances:	The outstanding amount hold by commercial banks and savings banks is close to 100%, since share of the NHF is negligible.
Typical LTV ratio on residential mortgage loans:	The typical LTV ratio on new residential mortgages is of 60%.
Any distinction made between residential and non-residential loans:	Residential loans are those designated for the purchase or renovation of housing.
Most common mortgage product(s):	The two more common products are: 20-year variable rate mortgage and 15-year fixed rate mortgage.
Typical maturity of a mortgage:	Average maturity in 2018 was 19 years.
Most common way to fund mortgage lending:	Mortgage funding in Slovenia is mainly deposit-based.
Level of costs associated with a house purchase:	The cost associated with house purchase represents between 2 and 4% (2% transfer tax, up to 2% for real estate agency fee if realtor was used) of the value.
The level (if any) of government subsidies for house purchases:	No subsidies

Spain

By Leyre López, Spanish Mortgage Association

IN A NUTSHELL

- → GDP growth of 2.6%, 0.8 pps above the average in the Euro area.
- → Unemployment rate stood at 15.3%, almost 2 pps below the year 2017.
- → +10.8% y-o-y growth on residential gross lending.
- → Fixed-rate mortgages continued to gain increasing importance in the market.
- → Approval of the new Law 5/2019 regulating Real Estate Credit Agreements which enhances the protection of the consumer rights.

MACROECONOMIC OVERVIEW

During 2018 the Spanish economy has continued to move forward, recording a real GDP growth of 2.6%. After growing above 3% for three consecutive years, 2018 showed certain economic downturn in line with the rest of the Euro area.

Domestic demand presented the main growth contribution for GDP (+2.9%), which counterbalanced the negative contribution of net external demand, which contracted by 0.3%. International tourism has lost momentum in 2018 (+1.7% on average), recording a y-o-y change below economic growth rate for the first time in a decade. The progressive weakening was also associated to the poor progress from exports of goods and services, that affected in general all the Euro area.

In terms of labour market, the economy showed clear signs of recovery. On average, the unemployment rate decreased from 17.2% in 2017 to 15.3% in 2018, although the situation remains difficult for young people who have to face precarious work arrangements and difficulties to get a stable job.

The inflation rate moderated its path during the last two months thanks in part to the decrease of fuel prices, reaching similar levels to those seen in early 2018. On average, the Harmonised Index of Consumer Prices index (HICP) stood at 1.7%, close to the ECB's 2.0% target. In terms of public finances, 2018 ended the year with a decrease of the budgetary deficit of 2.4% over GDP (below 3.0% ceiling imposed by the EU's Stability and Growth Pact legislation). This figure reflected the positive impact of both the improvement in the labour market, with less unemployment benefits and more social security contributions, together with a lower interest rate burden, given that the risk premium for sovereign bonds remained at a modest rate. However, in spite of this positive trend, the increase of public pensions as well as the rise in public wages made it more difficult to achieve the initial 2018 deficit target of 2.2%. In addition, the high level of public debt -despite decreasing from 98.1% in 2017 to 97.1% in 2018- constitutes a source of vulnerability for the Spanish economy.

HOUSING AND MORTGAGE MARKETS

HOUSING MARKET

During 2018 investment in the housing market has continued to be a major driver of economic growth, increasing by 7.0% in comparison with the previous year. This has been fueled by the context of low interest rates and the high profitability of some areas of the Spanish territory.

Against this background of positive economic evolution, in 2018 the number of housing transactions amounted to 581,793 units, experiencing an increase of 9.3% and showing a small deceleration with respect to the two previous years. Even so, this amount was the largest figure of the last decade, overcoming slightly even the one registered in 2008. Of the total number of transactions, more than 90% corresponded to second-hand dwellings in significant contrast with 2008, when the secondary market accounted for 41%. According to the buyer profile, around 16% of the total number of transactions belonged to foreign homeowners, which evidences certain loss of momentum compared to previous years. The situation of uncertainty of some community partners, as for instance the UK, one of the main countries of residential tourism in Spain, which is waiting to know the actual effects of the decision of leaving the EU, could help to explain the mild reduction of these transactions, that in previous years exceeded 17%.

From a supply-side perspective, in 2018, 100,733 building permits for residential purposes (the vast majority of them coming from private developers) were issued, which was 24.7% more than in 2017 and 56.5% more with respect to the building completion certificates (due to the smaller number of buildings started during past years).The construction of houses has especially focused in markets with greater economic and touristic conditions, such as Barcelona and Madrid, as well as the provinces of the Mediterranean coast.

The strengthening of the building activity and in particular the recovery of housing market prices presented a heterogeneous picture across regions. At a national level, housing prices have maintained an upward trend, confirming the positive path started in 2015 and on a yearly basis, prices have rebounded near to 4%. However, there are some local markets that evidence more frictions between the supply and the demand, such as large cities, where in certain neighbourhoods prices are closer to pre-crisis levels or, on the contrary, areas where because of the depopulation prices continued to plummet.

MORTGAGE MARKETS

The evolution of the mortgage credit during 2018 confirms the positive trend started four years ago. The expansion of mortgage credit throughout these years could be explained by the combination of two key circumstances: the maintenance of accommodating monetary policy and the improvements in the labour market. In this sense, new lending activity secured by a home increased from almost EUR 39.0 bn in 2017 to more than EUR 43.0 bn in 2018, thus leading to an improvement on a yearly basis of 10.8%.

However, although the deceleration on the unleveraged process suggests that the outstanding lending will resume its growing path soon, the positive dynamism on new lending input has not been able to offset the amount of loans given partially or totally off from balance sheet. By the end of the year, outstanding stock of residential loans amounted to EUR 490.8 bn, which represents 1.4% less than in 2017.

Since approximately 2014, Spanish entities have made significant progress deleveraging Non-Performing loans (NPL's). At the end of 2018 NPL ratio for housing purchase credit stood at 4.1%, more than 2 pps below in comparison with mid-2014. It is worth noting the case of real estate exposures, where over the last 4 years the NPL ratio has decreased from 38.0% to 9.6%. Over the coming years the cleaning up of banks' balance sheets is likely to persist on the basis of the fulfilment of EBA recommendations.

In terms of monetary policy, 2018 has been characterised by the postponement of official interest rate hikes due to price volatility. Against this background, Spanish interest rates did not suffer significant changes in comparison with the previous year. The weighted average interest rate charged by financial entities rose by a marginal 0.02 pps, up to 1.97% in 2018. This low mortgage interest rate context has encouraged the growth of long-fixed rate arrangements, which are gaining increasing importance in the market since 2015, accounting for more than 31% in 2018 from 1% in 2014. This shift in consumer preferences has persisted over the course of the year, reaching around 33% in Q1 2019.

According to Loan to Value (LTV) criteria, both indicators, the average LTV ratio and the ratio of those new mortgages with LTV greater than 80%, continued showing a relatively uniform evolution over the last 3 years, without significant variations. On average, in 2018 the LTV stood at 65.7%, while the proportion of loans with an LTV above 80% was of 14.9%.

NON-MARKET LED INITIATIVES

Two major developments in the mortgage credit field have marked 2018. On the one hand, the Law 5/2019 regulating real estate credit agreements passed its first parliamentary stage at the Congress of Deputies. The Law, which transposes the Directive 2014/17/EU into Spanish legislation, was published in the Official State Gazette (Boletín Oficial del Estado) in March 2019. The reinforcement of consumer protection and the introduction of rules regulating the transparency and conduct of real estate credit agreements are the main features of this Law, which is expected to strengthen legal certainty for the financial system, as demanded by the industry. A number of provisions, like the introduction of higher requirements for the assessment of the solvency of the borrower or tighter conditions to request an enforcement procedure, may result in certain tightening of the conditions for access to credit.

On the other hand, regarding the Stamp Tax on mortgage loan agreements (Impuesto de Actos Jurídicos Documentados) it is worth noting a Court decision reached regarding who is considered the taxpayer. For years the Stamp Tax has been payable by the borrower. This criterion has been confirmed by the Civil Chamber of the Spanish Supreme Court. However, in October 2018, another decision by the Administrative Division of the Spanish Supreme Court ruled that the tax shall be paid by the lender. Later, on 6 November 2018, the Plenary of the Division reversed that decision and stated that the taxable person shall be the borrower. Against this background, and following a huge controversy caused by the decision, on 10 November 2018 the Spanish Government changed by means of a Royal Decree the regulation, so the lender shall be the person liable to pay the tax.

MORTGAGE FUNDING

At the end of 2018, the total amount of deposits provided by the private sector reached EUR 1,165 bn, recording a y-o-y increase of 1.6%. Due to the low profitability that saving deposits offer, the market share of repurchase agreements as well as fixed-term deposits have sharply decreased, barely representing the former 2.0% and the latter 18% (compared to a share of 18-20% and above 50%, respectively, 4 years ago). For its part, call deposits have gained increasing importance, especially since 2013, reaching a share of 80%.

As a result of the deleveraging process in which Spain is going through since 2009, LTD ratio for the private resident sector stood at 103.7% in December 2018, on a steady downward trend (160% in September 2012).

Since 2013 mortgage securities' issuances remain at a relatively subdued level compared to previous years, as a result of the ongoing excess of liquidity and the insufficient level of new lending activity. The total amount of Covered Bonds' stock showed a decrease of 2.2%, amounting to EUR 211.7 bn at the end of 2018, while mortgage back securities drop by 11.0% y-o-y, up to EUR 100.2 bn.

According to the data provided by the Bank of Spain in terms of ECB's monetary policy, by the end of 2018 the Spanish banking sector had in its liability around 23% of the monetary stimulus, remaining at the forefront of the aids provided by the Eurosystem, only behind Italy.

	SPAIN 2017	SPAIN 2018	EU 28 2018
Real GDP growth (%) (1)	3.1	2.6	2.0
Unemployment Rate (LSF), annual average (%) (1)	17.2	15.3	6.8
HICP inflation (%) (1)	2.0	1.7	1.9
Outstanding Residential Loans (mn EUR) (2)	497,711	490,806	7,251,189
Outstanding Residential Loans per capita over 18 (EUR) (2)	13,039	12,813	17,404
Outstanding Residential Loans to disposable income ratio (%) (2)	70.0	66.9	77.2*
Gross residential lending, annual growth (%) (2)	3.7	10.8	2.34
Typical mortgage rate, annual average (%) (2)	2.0	2.0	2.5**
Owner occupation rate (%) (1)	77.1	76.3	69.3*
Nominal house price growth (%) (2)	2.4	3.4	6.3

* The aggregate EU figure is from 2017.
** Please note that this value is the simple average of the typical interest rate of the EU 28 countries.

Sources:
(1) Eurostat
(2) European Mortgage Federation - Hypostat 2019, Statistical Tables.

SPAIN FACT TABLE

Entities which can issue mortgage loans:	In Spain, mortgage lending is always provided by financial institutions. Banks, savings banks, credit cooperatives, and financial credit establishments are the institutions allowed by law to grant mortgage loans and issue securities. It is worth mentioning that saving banks were specially affected by the recent crisis due to the high exposure to the real estate sector. Several saving banks disappeared through liquidation or acquisition, and most of the remaining transformed into banks after Law 26/2013 of 27 December was passed. Since then, only small and regional saving banks operate in the market.
The market share of the mortgage issuances:	As in 2017, in 2018 around 90% of the total volume of new mortgage loans was granted by banks. Other financial institutions, like credit cooperatives and financial credit establishments, represented the remaining 10%.
Proportion of outstanding mortgage loans of the mortgage issuances:	Banks and former saving banks stand for the major part of the market, representing around a 91% of total outstanding mortgage lending. The remaining 9% is covered by credit cooperatives (8%) and financial credit establishments (1%).
Typical LTV ratio on residential mortgage loans:	On average terms, during 2018 the LTV ratio on new residential mortgage loans stood at 66% (according to Bank of Spain statistics). However, the most common LTV for first time buyers is 80%.
Any distinction made between residential and non-residential loans:	Residential loans include loans granted to households for housing purchase or renovation.
Most common mortgage product(s):	The most common mortgage loan product in Spain is the variable rate mortgage loan reviewable every 6 or 12 months with a French amortisation system. In variable rate mortgage loans, the interest rate is linked to an official reference index (being the most common the Euribor 12m). Since 2015 as a result of the security they offer, initial-fixed interest rate mortgage loans, with a fixation period of over 10 years, have gaining momentum, representing in December 2018 around 34% of gross lending.
Typical maturity of a mortgage:	In 2018 the average maturity for new mortgage loans in Spain stood near to 24 years (according to Bank of Spain statistics). Although the real amortisation period is usually lower, around 15 years on average.
Most common way to fund mortgage lending:	Deposits, covered bonds and RMBS/CMBS.
Level of costs associated with a house purchase:	The main transactions cost associated with house purchase are VAT for new housing, that represents a 10% of the value of the house and the Tax on property transfer for second hand dwellings (normally between 6-10%, depending on the geographical area). Other transaction costs like land property registration, certified legal documents tax, notary fees, and costs related with the mortgage can come to a 3-5% of the housing value.
The level (if any) of government subsidies for house purchases:	In 2013 the tax relief that had been into force for home buyers ended. In 2018 has come into force a new State Housing Plan for 2018-2021 which seeks to facilitate access to housing property for vulnerable young people under 35 years old whilst at the same time tries to boost the regeneration of urban and rural areas affected by depopulation.

Sweden

By Christian Nilsson, Swedish Bankers' Association

IN A NUTSHELL

- → Construction figures slowed down in 2018 after reaching the highest numbers in 2017 since the beginning of the 1990s.
- → House prices were largely unchanged in 2018, but apartment prices fell.
- → Residential mortgages slowed down further and grew by 5.8% in 2018.
- → Mortgage interest rates remained low and stable in 2018.
- → The share of households with new loans that amortise was 87% in 2018.

MACROECONOMIC OVERVIEW

Sweden's GDP increased by 2.3% in 2018 according to Statistics Sweden. Households' consumption contributed with 0.5 pps to the total GDP growth and public consumption contributed with 0.2 pps. Gross fixed capital formation increased by 3.3% and added to the GDP growth 0.8 pps. The residential construction was an important factor behind the gross fixed capital formation in 2018 as well as in 2017, however due to less construction activity in 2018 the growth was lower compared to 2017. Changes in inventories added to the GDP growth 0.4 pps. Exports increased more than imports and therefore net exports added to the GDP growth 0.4 pps.

Market production of goods and services increased by 3.0% in 2018. Production of goods rose by 2.6% and service-producing industries rose by 3.2%. The number of employed in the economy increased by 1.8%. The employment, measured as the total number of hours worked, increased by 2.1%. The unemployment rate fell to 6.3% in 2018 from 6.7% in 2017. Unemployment has fallen in recent years as the economy has strengthened. The combination of major shortages of workers with the required skills and a very large number of vacancies indicates considerable matching problems in the labour market writes the NIER (National Institute of Economic Research).

The inflation has increased slightly during 2018 and was 2.0% at the end of the year. The same development has been observed for the core inflation which was 2.2% at the end of 2018.

Government debt as a percentage of GDP was 26% in 2018, down from 29% in 2017, according to the Swedish National Debt Office. The Swedish central government showed a budget surplus of SEK 80.0 bn in 2018, compared with a surplus of SEK 61.8 bn in 2017. A strong economy and labour market led to high tax incomes in 2018 from wages, consumption and corporate profits according to the Debt Office.

HOUSING AND MORTGAGE MARKETS

HOUSING MARKET

Housing completions have increased continuously for four years in a row and reached around 52,800 dwellings in 2018 (+9.3% y-o-y) compared to 48,200 dwellings in 2017. The figures are expected to level off as the housing prices declined in 2018. In addition, the number of housing starts peaked in 2017 and started to decline in 2018. Housing starts declined by -16% in 2018 to around 53,000 dwellings. Despite the decline in housing starts, construction figures for the three last years are the highest figures since the beginning of the 1990s. Also building permits began to decrease in 2018 with -17% y-o-y to 59,000 building permits, which is still a comparably high figure. Even though the housing market has cooled down, there is a lack of housing, especially in the larger cities. However, the prices are high and new amortisation rules have limited the possibilities for some demographic groups to enter the housing market. New constructed highly priced apartments have become hard to sell in many Swedish cities. Housing constructors are therefore slowing down planning and construction of new homes.

Prices on one-family homes increased by only 0.1% during 2018 compared to +8.3% in 2017. The Stockholm region is the part of Sweden where one-family homes are most expensive. In the autumn of 2017, the market for housing started to change and the cooling off started in Stockholm. Prices for one-family homes in Stockholm decreased by 5.2% in 2018 and by -0.7% in Gothenburg. In the Malmö-region the prices continued to increase in 2018, but by modest 3.0%.

The prices for tenant-owned apartments has been stable in 2018 with an almost zero increase by the end of the year. In 2017 the prices on tenant-owned apartments fell sharply in the autumn by almost 10%. After the price decrease at the end of 2017 prices stabilised. The prices for tenant-owned apartments seem to increase slightly in the beginning of 2019.

One factor which has influenced the market is the stricter amortisation rules introduced in 2017 to curb interest-only loans. Other factors are that construction has reached relatively high levels and has created a larger supply of housing in certain segments, and a general uncertainty of the development of the economy. Also, the share of rental apartments among new constructed apartments has increased and the share of tenant-owned apartments has decreased.

MORTGAGE MARKETS

Market dynamics

Residential mortgage lending grew by 5.8% in 2018 compared to 7.1% in 2017. The growth rate of residential loans has now been declining for three years in a row.

The mortgage lending has cooled-off the last years, but from comparably high figures. During a comparably long period the mortgage lending growth has been higher than the GDP growth and has increased households' debt levels. Several factors, which have been unchanged for many years, explain the increasing residential lending. The Swedish population is growing in record numbers due to high immigration and relatively high birth rates. The internal migration in Sweden towards 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 with a first-hand contract. 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 at a cost usually far higher than rents on the regulated first-hand market. An additional factor is historically low mortgage interest rates. Also, the high construction figures the last years of above all tenant-owned apartments have added to financing needs by mortgage loans.

Non-market led initiatives

Several measures have been taken in recent years for the purpose of counteracting high indebtedness. In 2010 the Swedish Financial Supervisory Authority introduced a mortgage cap, whereby home loans may not exceed 85% of the value of the home. The Financial Supervisory Authority has also introduced a risk weight floor for Swedish mortgages in order to tie up more capital in relation to banks' mortgage lending. The risk weight floor for mortgages is currently 25%.

Another measure to tackle high indebtedness is the introduction of amortisation requirements. In June 2016 the Financial Supervisory Authority's regulation on amortisation requirements entered into force and from March 2018 stricter amortisation requirements entered into force.

Mortgage interest rates have been relatively stable the last four years. The variable (3-month) mortgage interest rate has varied between 1.4 and 1.6% during 2018, which is about the same level as from 2015 to 2017. The initial fixed mortgage interest rates, 1-5 years, have varied between 1.6 and 1.7% in 2018, which is also the same level as previous years. Initial fixed mortgage interest rates over 5 years were low also in 2018 and reached levels below 2% at the end of 2018.

Finansinspektionen published an annual report on the mortgage lending market. Finansinspektionen writes in the latest report that the percentage of households that amortise their mortgages has increased over a period of several years partly due to the stricter amortisation requirements. The size of the amortisation payments increased as well, and more new borrowers with a high loan-to-income ratio amortised in 2018. The share of households with new loans that amortise was 87% in 2018. The average LTV for new mortgage loans was 65% in 2018, slightly higher than in 2017.

	SWEDEN 2017	SWEDEN 2018	EU 28 2018
Real GDP growth (%) (1)	2.3	2.4	2.0
Unemployment Rate (LSF), annual average (%) (1)	6.7	6.3	6.8
HICP inflation (%) (1)	1.9	2.0	1.9
Outstanding Residential Loans (mn EUR) (2)	402,250	408,639	7,251,189
Outstanding Residential Loans per capita over 18 (EUR) (2)	50,797	51,089	17,404
Outstanding Residential Loans to disposable income ratio (%) (2)	167.3	171.9	77.2*
Gross residential lending, annual growth (%) (2)	0.9	-6.9	2.34
Typical mortgage rate, annual average (%) (2)	1.6	1.5	2.5**
Owner occupation rate (%) (1)	65.2	64.1	69.3*
Nominal house price growth (%) (2)	8.3	0.0	6.3

* The aggregate EU figure is from 2017.
** Please note that this value is the simple average of the typical interest rate of the EU 28 countries.

Sources:
(1) Eurostat
(2) European Mortgage Federation - Hypostat 2019, Statistical Tables.

The credit loss ratio on mortgage loans has been close to zero for several years in Sweden, including 2018. An explanation for the low credit losses are high credit standards in Sweden, but also that the housing prices have been almost continuously increasing the last 25 years.

MORTGAGE FUNDING

Covered bonds are the most common form of funding used in the Swedish market for funding of mortgages. During 2018 the Swedish stock of covered bonds increased by 3.6% (in SEK) to EUR 218 bn. This could be compared to outstanding residential mortgages of EUR 409 bn. The Swedish mortgage institutions issued new covered bonds amounting to EUR 54 bn in 2018.

SWEDEN FACT TABLE

Entities which can issue mortgage loans:	There are no specific limitations as regards issuing mortgages. In practice 99% of all mortgage lending in Sweden is issued by banks and credit market institutions. New non-bank actors are entering the market, but have yet a limited stock of mortgage loans.
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. Other actors are not measured by the authorities yet, but probably have limited market shares.
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 2018 was 65%.
Any distinction made between residential and non-residential loans:	The distinction is made based on how the loan is secured. Residential loans are secured on residential property.
Most common mortgage product(s):	Ordinary mortgage loans. Variable interest is the most common interest rate on mortgages.
Typical maturity of a mortgage:	The expected average length of a mortgage loan is 7.5 years. Contractual lengths of mortgage loans vary normally between 30 to 50 years. However, for many different reasons mortgage borrowers either terminate their mortgage permanently or terminate and get a new one before the contractual length is reached.
Most common way to fund mortgage lending:	Covered bonds
Level of costs associated with a house purchase:	Different studies seem to indicate that the level of cost associated with a house purchase is very low in Sweden. Transaction costs in Sweden consist mainly of stamp tax (1.5%) and, if you need a loan, of a mortgage fee (2% of the new or increased mortgage). Normally you do not pay any fee to the mortgage lender. Notary is not needed in Sweden and there is therefore no notary fee.
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 James Tatch, UK Finance

IN A NUTSHELL

- Despite significant Brexit uncertainty, favourable labour market conditions and low interest rates contributed to a growing UK mortgage market.
- Regional disparities widened in 2018, with prices in London in negative territory throughout the year whilst other regions continued to see growth.
- Underpinned by targeted tax and government assistance programmes, first-time buyer numbers continued to increase, but affordability pressures have begun to bear down on growth.
- Regulation and taxation continue to progressively dampen demand in the buy to let market.
- Bolstered by a healthy labour market, arrears and possessions continue to fall below historic lows.

MACROECONOMIC OVERVIEW

The continuing theme in the UK throughout 2018 was one of widespread uncertainty. With parliament unable to agree the terms of the UK's exit from the EU, confidence indicators pointed to, at best, a wait and see attitude, pending more clarity as to the medium and longer term path of the economy.

Accordingly, many businesses were unable and/or unwilling to make forward-looking decisions, and business investment contracted by 0.4% in real terms, the weakest showing since 2009. This acted as a significant brake on GDP, which slowed to 1.4% in 2018 from 1.8% in 2019. The services sector fared somewhat better, but growth here also eased off towards the end of the year.

Price growth has been distorted since late 2016, with imported inflation arising from the weakened exchange rate following the EU referendum. However, after peaking at 3.0% at the end of 2017, inflation fell away steadily in 2018 and finished the year at 2.1%, only slightly above target (2.0%).

In the face of higher inflation and weakened confidence indicators, consumer spending also slowed over the year but nonetheless made a relatively strong contribution to overall growth.

This relative strength in the consumer sector was underpinned by a strong labour market. The UK unemployment rate, which in 2017 was already at its lowest level since 1974 (4.3%) fell further to 3.9% by the end of 2018. And real wages, which had been stagnant for some time, finally showed some growth last year.

In line with its long-stated "gradual and modest" mantra the Bank of England made just one quarter-point interest rate rise in the year, bringing the official rate to 0.75% in August. This is just the second rate rise the UK has seen since the summer of 2007.

HOUSING AND MORTGAGE MARKETS

HOUSING MARKET

Whilst the gap between the supply and demand for housing in the UK remains a key policy challenge, the last few years have seen material growth in construction. The government's Help to Buy scheme, through which borrowers obtain an equity loan to help bridge the considerable deposit constraint, is available only for purchases of newly built property. This tilts demand – largely from first-time buyers - towards new build and away from the second-hand market.

Although the Help to buy scheme's impact on supply is difficult to quantify accurately, housebuilding activity has seen continuous growth since 2013 when the scheme began. The 138,000 private sector housing starts in England last year represents a more than doubling from its low point in 2009 and is the highest number since 2006.

First-time buyers were the beneficiaries of a range of stimulus measures in 2018, including Help to buy and a Stamp Duty exemption, however these measures did not extend to other potential buyers. This, combined with the weaker confidence and constrained affordability from already high house prices in many regions, led to a modest decline in overall housing market activity in 2018. There were 1.19 mn property transactions in the UK last year, down 2% compared to 2017.

Reflecting this, price inflation was more subdued than recent years at 3.2%, compared to 4.5% in 2017, and 7% in 2016. Whilst most regions showed some level of growth, London which often leads housing market trends around the country, experienced a fall in house prices last year, the first decline in a decade.

Price growth in other English regions also moderated in 2018, but remained in positive territory. However, in Scotland, Wales and Northern Ireland, all of which have comparatively better affordability, prices showed stronger growth.

MORTGAGE MARKETS

Government policy on housing in recent years has been largely aimed at stimulating first-time buyer activity, most notably through Help to buy schemes and stamp duty exemptions. At the same time, more stringent regulation and increased taxation on buy to let mortgages have acted to significantly dampen demand for new investment in the rental sector. Home movers have been largely left alone in this mix – neither directly targeted with assistance or with additional surcharges and regulation.

As such, we continue to see different trends in purchase activity: first-time buyer numbers increased again, with 357,000 new first-time buyer loans in 2018, up 2% from the 348,000 in 2017. However, the rate of growth was significantly down - from 5% in 2017 and 11% in 2016. This is likely to be linked to affordability; irrespective of assistance programmes, since 2014 FCA rules require lenders to verify that mortgage applicants can afford to repay the mortgage from available income after deducting other household bills and living costs, both at the initial pay rate and under a higher, stressed interest rate. For much of the intervening period wages have failed to keep pace with house price inflation, and as a result affordability has become ever more stretched.

Beyond this, the Prudential Regulation Authority requires that firms limit their exposure to higher-geared loans, such that no more than 15% of total lending volume is for mortgages at a loan-to-income (LTI) ratio of over 4.5. Last year, the average LTI for a first-time buyer was 3.5, the highest figure since records began in 1974. It is likely that the PRA's macroprudential LTI limit is beginning to bear down on the capacity of the market to fund FTB growth at the rate seen in recent years.

In the face of the tax and regulatory measures, demand for new buy to let mortgages has been severely dampened since 2015, when these first started to take effect. But, whilst the stamp duty surcharge and additional underwriting requirements have been fully in force 2016/2017 the phased removal of mortgage interest income tax relief is a phased process, with the amount of interest that may be deducted in each year decreasing from 2017 through to tax year 2020/2021. This measure looks to be the most significant brake on activity and has been progressively bearing down activity. There were 67,000 new BTL house purchase mortgages last year, down 11% on 2017 and 43% less than the peak levels seen in 2015.

Although house purchase mortgage activity was muted in 2018, the refinance market went from strength to strength. Buoyed by continuing low rates and the expectation of rate increases to come – albeit gradual and modest – borrowers have increasingly looked to lock into the attractively priced fixed rate deals. A changing feature of the mortgage market however is an increasing preference for longer term fixed rates. Historically, the product of choice for UK mortgage borrowers has been a two-year fixed rate. However, since 2016 we have seen increasing numbers opt for five-year products which, helped by the longer term outlook for rates, are now priced only very modestly higher than two year products. Going forward, from around 2021, this increasing preference for longer term fixes will begin to bear down on the volume of mortgages that come up for refinancing each year.

Despite the uncertain environment, the strong labour market, together with historically low interest rates, means that the overwhelming majority of customers remain able to meet their mortgage payments. In 2018 there were 83,000 mortgages in arrears representing over 2.5% of the mortgage balance – the lowest number since at least 1994. Homeowner mortgage possessions, which have fallen every year since 2009, fell again in 2018 to just 4,600, which is the lowest number since 1980.

MORTGAGE FUNDING

February 2018 saw the closure of the Bank of England's Term Funding Scheme, which enabled lenders to access cheap finance, subject to this being passed on in loans to the real economy (consumers and businesses).

Although mortgage lending spreads have continued to narrow and the extra compensation for lending for five years, rather than two has decreased, borrower demand has been relatively muted and the mortgage market remains very competitive, with historically low lending margins. As a result, there has been little pressure on banks' mortgage funding costs as they have largely been able to fund new mortgages with retail deposits. The introduction of ring-fencing of major UK banks which separates retail banking services from other activities may have supported this, as some ring-fenced entities have more domestic deposits than loans.

There has been some volatility in wholesale funding market rates, but this has not fed through into mortgage pricing. These fluctuations have arisen from sterling weakness, as the UK continues to negotiate with the EU about its relationship in a post-Brexit environment and securitisation market uncertainty about the introduction of the new EU securitisation regulation that introduces, simple, transparent, standardised securitisations.

	UK 2017	UK 2018	EU 28 2018
Real GDP growth (%) (1)	1.7	1.4	2.0
Unemployment Rate (LSF), annual average (%) (1)	4.3	4.0	6.8
HICP inflation (%) (1)	2.7	2.5	1.9
Outstanding Residential Loans (mn EUR) (2)	1,539,979	1,575,990	7,251,189
Outstanding Residential Loans per capita over 18 (EUR) (2)	29,673	30,158	17,404
Outstanding Residential Loans to disposable income ratio (%) (2)	98.8	97.7	77.2*
Gross residential lending, annual growth (%) (2)	-2.6	3.5	2.34
Typical mortgage rate, annual average (%) (2)	2.0	2.1	2.5**
Owner occupation rate (%) (1)	65.0	n/a	69.3*
Nominal house price growth (%) (2)	4.6	3.1	6.3

* The aggregate EU figure is from 2017.
** Please note that this value is the simple average of the typical interest rate of the EU 28 countries.

Sources:
(1) Eurostat
(2) European Mortgage Federation - Hypostat 2019, Statistical Tables.

UNITED KINGDOM FACT TABLE

Entities which can issue mortgage loans:	Monetary and Financial Institutions (MFIs), which includes banks and building societies. Other specialist lenders (non-bank, non-building society UK credit grantors, specialist mortgage lenders, retailers, central and local government, public corporations, insurance companies and pension funds). Other (anything not covered elsewhere).
The market share of the mortgage issuances:	**MFIs** – 91% **Other specialist lenders** – 7% **Other** – 2%
Proportion of outstanding mortgage loans of the mortgage issuances:	**MFIs** – 89% **Other specialist lenders** – 8% **Other** – 4%
Typical LTV ratio on residential mortgage loans:	72% (NB, now presented as mean statistic, formerly median. This results in a downward shift in LTV figures, although underlying trends are unchanged).
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

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
AUSTRIA	65,897	72,061	73,455	80,008	83,960	86,281	87,622	90,710	96,925	101,169	107,354	112,934
BELGIUM	126,383	137,016	151,738	161,723	172,049	183,615	189,484	196,877	207,117	220,114	233,224	246,528
BULGARIA	2,795	3,806	3,798	3,714	3,589	3,573	3,507	3,499	3,522	3,700	4,190	4,715
CROATIA	6,473	7,501	7,663	8,258	8,363	8,293	8,059	7,865	7,734	6,947	7,101	7,293
CYPRUS	6,935	8,501	10,388	11,921	12,545	12,679	11,854	11,655	11,661	11,515	11,123	8,670
CZECH REPUBLIC	12,539	14,786	20,942	24,128	25,556	27,851	27,222	28,732	32,085	34,940	40,542	43,983
DENMARK	195,693	207,267	216,697	224,036	228,743	230,741	231,850	234,518	238,848	243,751	248,776	251,705
ESTONIA	5,626	6,209	6,111	5,973	5,882	5,846	5,896	6,064	6,323	6,661	7,107	7,603
FINLAND	62,172	67,632	71,860	76,747	81,781	86,346	88,313	89,762	91,955	94,056	96,129	97,781
FRANCE	646,500	700,200	730,500	795,200	843,200	870,040	814,627	833,120	866,401	899,358	954,226	1,009,562
GERMANY	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	1,378,810	1,445,987
GREECE	69,363	77,700	80,559	80,507	78,393	74,634	71,055	69,408	67,593	61,397	58,812	56,766
HUNGARY	17,397	22,346	22,463	24,659	21,950	19,985	18,499	17,146	14,943	14,024	13,602	13,604
IRELAND	140,562	148,803	147,947	103,043	100,588	97,462	94,862	90,593	87,898	86,195	84,045	83,301
ITALY	265,454	264,288	280,337	352,111	367,645	365,588	361,390	359,137	362,332	368,169	375,398	379,054
LATVIA	6,702	7,192	6,870	6,559	5,991	5,334	5,062	4,703	4,503	4,412	4,363	4,102
LITHUANIA	4,849	6,055	6,027	5,983	5,866	5,811	5,836	5,996	6,168	6,584	7,173	7,758
LUXEMBOURG	14,676	15,940	17,077	18,591	20,255	21,715	23,389	25,038	26,599	28,314	30,656	33,064
MALTA	2,015	2,220	2,458	2,666	2,893	3,088	3,278	3,592	3,905	4,204	4,548	4,949
NETHERLANDS	584,967	615,125	638,045	655,737	667,331	671,166	678,913	680,529	685,084	695,440	704,792	714,367
POLAND	32,733	46,573	52,545	67,526	71,883	79,434	80,812	82,555	90,901	92,015	93,111	100,579
PORTUGAL	101,094	105,209	110,685	114,515	113,916	110,520	106,585	102,469	98,516	95,377	94,093	93,952
ROMANIA	4,203	5,270	5,733	6,763	7,596	8,767	9,257	10,105	11,522	12,893	14,262	15,820
SLOVAKIA	6,773	8,536	9,469	10,849	12,320	13,701	15,304	17,364	19,714	22,508	25,383	25,438
SLOVENIA	2,670	3,398	3,933	4,844	5,164	5,259	5,307	5,348	5,525	5,717	5,976	6,239
SPAIN	580,722	611,483	611,813	620,433	612,657	594,405	569,692	552,613	526,105	511,253	497,711	490,806
SWEDEN	217,881	206,210	238,424	292,263	308,498	334,922	340,379	339,152	375,277	387,000	402,250	408,639
UNITED KINGDOM	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	1,546,503	1,539,979	1,575,990
EURO AREA 19	3,844,252	3,996,917	4,100,214	4,253,622	4,350,352	4,392,532	4,341,456	4,376,393	4,447,612	4,542,760	4,673,749	4,821,103
EU 28	5,915,794	5,761,839	6,017,242	6,303,920	6,472,211	6,613,174	6,550,299	6,718,414	6,984,000	6,891,117	7,044,736	7,251,189
AUSTRALIA	283,394	267,804	401,294	536,739	596,014	621,219	533,808	563,057	625,225	694,017	739,544	n/a
BRAZIL	16,790	18,393	33,567	59,210	78,394	94,454	103,519	134,023	115,872	155,791	142,240	134,780
CANADA	549,799	604,758	646,655	692,536	737,279	780,203	821,132	862,683	918,551	975,542	1,026,159	1,059,525
ICELAND	11,253	6,743	7,055	8,977	8,370	8,140	8,937	9,165	9,694	11,851	12,014	12,357
JAPAN	1,130,376	1,477,156	1,392,359	1,704,230	1,860,530	1,652,307	1,313,785	1,318,794	1,481,212	1,604,622	1,499,511	1,655,890
NORWAY	175,091	157,299	187,720	209,586	227,272	260,725	245,449	241,128	242,633	274,257	270,151	280,500
RUSSIA	16,985	28,216	25,951	30,340	37,267	51,549	60,339	50,243	50,812	71,762	77,016	89,267
SINGAPORE	n/a	n/a	n/a	n/a	56,695	76,850	83,310	87,728	101,021	104,109	106,172	100,555
SOUTH KOREA	n/a	n/a	n/a	n/a	n/a	n/a	288,175	347,678	383,224	430,012	451,945	473,021
SWITZERLAND	412,360	472,649	494,613	613,474	665,927	702,335	720,066	763,933	870,570	900,941	850,522	915,645
TURKEY	17,500	16,431	19,513	28,429	29,989	36,146	37,048	44,270	45,096	44,167	42,105	31,023
USA	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	8,829,982	9,496,699

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)
- Spain: 1999 (due to a change in methodology)
- Sweden: 2004 (due to a change in the statistical source)

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

3) Notes:
- For further details on the methodologies, please see "Annex: Explanatory Note on data".
- n/a: figure not available
- Please note that the conversion to euros is based on the bilateral exchange rate at the end of the period (provided by the ECB and Bloomberg)
- Please note that due to the conversion to euros, changes observed for countries not belonging to the euro area may be due to exchange rate fluctuations. To obtain values in national currency, please refer to the exchange rates used, on Table 30 of this publication.
- For Turkey the entire series has been updated
- For Ireland, this series includes all housing loans until 2009. From 2010, this series represents only housing loans for owner-occupied dwellings.
- For Malta, this series does not include non-resident lending
- For Japan, the reference year is the Japanese Fiscal year, from April to March
- For Spain the series from 1999 has been updated and refers total residential mortgage loans (only backed up by a mortgage)

2. Change in Outstanding Residential Loans

End of period, EUR million

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
AUSTRIA	4,104	6,164	1,394	6,553	3,952	2,321	1,341	3,088	6,215	4,244	6,185	5,580
BELGIUM	12,277	10,634	14,722	9,985	10,326	11,566	5,869	7,393	10,240	12,997	13,110	13,304
BULGARIA	n/a	1,011	-8	-85	-125	-16	-66	-8	23	178	491	525
CROATIA	1,272	1,028	162	595	105	-70	-234	-194	-130	-787	153	192
CYPRUS	1,514	1,566	1,886	1,533	624	134	-825	-199	6	-146	-392	-2,453
CZECH REPUBLIC	3,865	2,246	6,156	3,186	1,428	2,296	-630	1,510	3,353	2,855	5,602	3,442
DENMARK	17,825	11,574	9,430	7,339	4,707	1,998	1,110	2,668	4,331	4,903	5,025	2,929
ESTONIA	1,348	584	-98	-138	-91	-36	51	168	259	338	446	496
FINLAND	6,865	5,460	4,228	4,887	5,034	4,565	1,967	1,449	2,193	2,101	2,073	1,652
FRANCE	73,900	53,700	30,300	64,700	48,000	26,840	-55,413	18,493	33,281	32,957	54,868	55,336
GERMANY	-28,092	-10,338	1,565	5,226	11,588	21,070	23,969	28,588	42,046	47,445	51,909	67,177
GREECE	12,218	8,337	2,859	-52	-2,114	-3,759	-3,579	-1,646	-1,815	-6,196	-2,585	-2,046
HUNGARY	3,709	4,948	117	2,196	-2,708	-1,965	-1,486	-1,353	-2,203	-919	-423	3
IRELAND*	16,574	8,241	-856	-44,904	-2,455	-3,126	-2,600	-4,269	-2,695	-1,703	-2,150	-744
ITALY	21,140	-1,166	16,049	71,775	15,534	-2,057	-4,198	-2,253	3,195	5,837	7,229	3,656
LATVIA	2,063	490	-321	-312	-568	-657	-272	-359	-200	-91	-49	-261
LITHUANIA	1,852	1,206	-29	-44	-117	-55	25	160	172	416	589	585
LUXEMBOURG	2,658	1,264	1,137	1,514	1,664	1,460	1,674	1,649	1,561	1,715	2,342	2,408
MALTA	245	205	238	208	227	195	190	314	313	299	344	401
NETHERLANDS	36,826	30,158	22,920	17,692	11,594	5,989	-9,192	1,616	4,555	10,356	9,352	9,575
POLAND	12,253	13,840	5,972	14,981	4,357	7,551	1,378	1,743	8,346	1,114	1,096	7,468
PORTUGAL	9,198	4,115	5,476	3,830	-599	-3,396	-3,935	-4,116	-3,953	-3,139	-1,284	-141
ROMANIA	2,027	1,068	463	1,029	833	1,171	490	848	1,417	1,371	1,369	1,558
SLOVAKIA	1,564	1,763	933	1,380	1,471	1,381	1,603	2,060	2,350	2,794	2,875	55
SLOVENIA	714	728	535	911	320	95	48	41	177	192	259	263
SPAIN	71,577	30,762	330	8,620	-7,776	-18,252	-24,713	-17,079	-26,508	-14,852	-13,542	-6,905
SWEDEN	12,671	-11,671	32,214	53,838	16,236	26,424	5,457	-1,227	36,125	11,722	15,250	6,389
UNITED KINGDOM	9,906	-331,872	97,630	50,234	46,844	61,450	-17,842	129,031	142,933	-208,884	-6,524	36,011
EURO AREA 19	246,694	152,665	103,297	153,408	96,730	44,333	-68,015	34,937	71,219	95,148	130,989	147,353
EU 28	314,869	-153,955	255,404	286,678	168,291	143,117	-79,813	168,114	265,586	-92,883	153,619	206,453
AUSTRALIA	29,947	-15,590	133,490	135,446	59,274	25,205	-87,411	29,249	62,168	68,792	45,527	n/a
BRAZIL	n/a	1,604	15,173	25,643	19,184	16,060	9,065	30,503	-18,150	39,918	-13,551	-7,460
CANADA	61,136	54,960	41,896	45,882	44,743	42,924	40,928	41,552	55,867	56,991	50,617	33,366
ICELAND	1,966	-4,510	312	1,922	-607	-230	797	228	529	n/a	n/a	344
JAPAN	-84,087	346,780	-84,087	311,871	156,300	-208,223	-338,522	5,009	162,418	123,409	-105,110	156,378
NORWAY	23,690	-17,792	30,421	21,866	17,686	33,453	-15,275	-4,322	1,506	31,624	-4,107	10,350
RUSSIA	10,241	11,231	-2,265	4,389	6,927	14,282	8,790	-10,096	569	20,950	5,254	12,251
SINGAPORE	n/a	n/a	n/a	n/a	n/a	20,154	6,460	4,418	13,293	3,088	2,063	-5,617
SOUTH KOREA	n/a	n/a	n/a	n/a	n/a	n/a	n/a	59,503	35,547	46,787	21,933	21,076
SWITZERLAND	- 2,960	60,290	21,964	118,861	52,453	36,408	17,731	43,867	106,637	30,371	- 50,419	65,123
TURKEY	5,762	-1,069	3,082	8,916	1,560	6,157	902	7,222	827	-930	-2,062	-11,082
USA	-358,978	508,309	-437,429	-362,772	65,771	-327,085	-345,816	970,818	1,046,453	521,921	-924,785	-11,082

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

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
AUSTRIA	10,765	11,130	11,761	12,941	14,501	15,441	15,874	16,877	21,166	20,363	28,106	28,106
BELGIUM	22,825	21,531	22,076	26,768	28,074	25,994	25,077	29,441	36,155	36,554	33,568	34,895
BULGARIA	1,783	1,648	617	669	656	599	635	697	973	1,157	1,620	1,708
CROATIA	n/a	n/a	n/a	n/a	n/a	781	583	595	892	2,606	1,422	1,484
CYPRUS	n/a	n/a	2,098	3,017	1,907	1,518	1,399	525	644	866	720	869
CZECH REPUBLIC	5,395	4,935	2,689	3,216	4,757	4,566	6,404	7,081	8,646	11,109	11,838	11,563
DENMARK	35,796	31,340	44,593	41,386	24,095	43,199	24,700	35,303	50,700	40,526	40,661	39,100
ESTONIA	2,136	1,433	446	419	490	566	686	819	942	1,038	1,206	1,315
FINLAND	28,931	26,669	19,739	20,972	22,537	21,400	17,514	17,540	33,307	29,511	30,982	33,970
FRANCE	154,887	128,600	109,600	138,437	145,546	117,093	109,954	111,170	127,776	144,157	164,150	161,757
GERMANY	132,000	132,800	131,300	142,700	150,600	162,900	170,100	177,100	208,600	209,400	214,300	227,800
GREECE	15,199	12,435	7,966	n/a	n/a	n/a	n/a	n/a	447	471	518	553
HUNGARY	5,787	6,240	1,907	1,398	1,294	1,214	623	885	1,343	1,688	2,352	2,875
IRELAND	33,808	23,049	8,076	4,746	2,463	2,636	2,495	3,855	4,848	5,656	7,286	8,722
ITALY	83,604	74,102	64,021	67,800	59,196	32,683	28,904	34,861	66,058	83,468	71,454	67,860
LATVIA	n/a	n/a	n/a	119	160	176	221	247	271	363	419	450
LITHUANIA	1,852	1,808	1,050	706	876	856	856	876	1,050	1,218	1,338	1,459
LUXEMBOURG	4,669	3,979	4,456	5,095	5,065	5,523	4,817	5,694	6,347	7,134	7,250	8,680
MALTA	245	205	238	210	227	n/a	n/a	n/a	n/a	n/a	n/a	n/a
NETHERLANDS	115,297	98,062	65,302	65,719	68,942	46,664	36,700	48,550	63,474	80,977	100,972	105,895
POLAND	n/a	n/a	n/a	2,666	n/a	6,646	7,716	8,003	9,850	9,389	10,695	11,810
PORTUGAL	19,630	13,375	9,330	10,107	4,853	1,935	2,049	2,313	4,013	5,790	8,259	9,835
ROMANIA	2,256	7,827	921	1,458	1,472	1,455	1,521	1,542	2,516	2,470	2,656	2,688
SLOVAKIA	n/a	n/a	2,332	3,329	3,922	3,803	4,873	5,840	6,362	9,865	8,055	2,900
SLOVENIA	n/a	672	1,456	1,213	928	705	597	633	886	1,059	1,118	1,068
SPAIN	145,294	87,074	73,155	69,479	37,448	32,279	21,857	26,800	35,721	37,492	38,861	43,056
SWEDEN	43,895	33,776	39,909	45,077	38,887	40,616	46,498	51,168	60,761	59,341	59,871	55,755
UNITED KINGDOM	521,381	311,202	157,779	155,981	159,303	178,217	209,257	252,301	305,547	300,881	293,154	303,434
EURO AREA 19	770,897	636,719	532,066	570,549	545,600	470,653	442,574	482,616	617,423	674,515	717,842	738,321
EU 28	1,387,435	1,033,891	782,817	825,628	778,198	749,464	741,910	840,715	1,059,296	1,104,549	1,142,832	1,169,607
AUSTRALIA	108,455	88,274	104,737	108,197	117,497	131,817	132,369	135,060	156,230	161,756	168,445	156,999
BRAZIL	9,391	15,076	17,806	34,901	48,575	47,059	52,100	49,791	34,678	29,718	28,270	27,193
CANADA	n/a	n/a	n/a	n/a	n/a	195,557	194,208	196,754	241,396	260,414	255,278	225,183
ICELAND	n/a	n/a	n/a	n/a	n/a	n/a	858	994	1,769	11,562	13,978	16,558
JAPAN	121,445	129,575	148,236	169,881	180,636	197,864	159,624	137,448	149,785	204,841	168,460	160,463
RUSSIA	15,891	18,006	3,455	9,439	17,536	25,847	31,980	34,623	17,065	19,873	30,664	40,695
TURKEY	8,696	8,057	9,811	15,939	12,728	12,305	19,893	12,566	15,464	17,078	16,611	6,872
USA	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	1,781,889	1,886,876

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

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:
- Japan
- Turkey

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

- Please note that the conversion to euros is based on the yearly average bilateral exchange rate (provided by the ECB).
- Please note that due to the conversion to euros, changes observed for countries not belonging to the euro area may be due to exchange rate fluctuations. To obtain values in national currency, please refer to the exchange rates used, on Table 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, %

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	TYPE
AUSTRIA	4.79	5.32	3.71	2.71	2.86	2.71	2.39	2.29	2.02	1.92	1.89	1.84	1
BELGIUM	4.71	5.09	4.25	3.59	3.81	3.63	3.45	3.17	2.49	2.11	2.09	1.91	1
BULGARIA	7.90	8.28	9.04	8.47	7.93	7.59	7.05	6.69	5.89	4.99	4.00	4.64	1
CROATIA	4.94	5.78	6.36	6.32	5.48	5.45	5.04	5.05	5.07	4.78	3.50	3.61	1
CYPRUS	5.61	5.97	6.05	4.73	5.31	5.33	5.03	4.43	3.59	3.06	2.77	2.41	2
CZECH REPUBLIC	4.69	5.61	5.61	4.90	4.04	3.52	3.26	2.56	2.42	2.19	2.21	2.57	1
DENMARK	5.36	5.77	3.21	2.17	2.41	1.41	1.20	1.29	1.09	1.15	1.00	0.81	1
ESTONIA	5.49	5.82	3.87	3.50	3.42	2.86	2.54	2.43	2.25	2.28	2.34	2.59	1
FINLAND	4.71	5.01	2.45	1.98	2.50	1.97	1.98	1.80	1.35	1.16	0.95	0.86	1
FRANCE	4.26	4.84	4.09	3.42	3.80	3.56	3.01	2.72	2.11	1.61	1.52	1.46	1
GERMANY	5.09	5.22	4.26	3.69	3.84	3.06	2.76	2.49	1.95	1.76	1.83	1.87	4
GREECE	4.45	4.81	3.94	3.68	4.33	3.26	2.82	2.94	2.62	2.74	2.78	3.05	2
HUNGARY	9.98	10.91	11.55	10.88	10.46	10.51	9.85	8.48	6.21	5.32	4.70	4.43	2
IRELAND	4.93	5.17	3.14	3.13	3.46	3.28	3.44	3.42	3.49	3.26	3.19	3.01	1
ITALY	5.72	5.09	2.88	2.97	4.03	3.69	3.50	2.83	2.50	2.02	1.90	1.89	1
LATVIA	6.10	7.02	4.95	4.09	4.12	3.66	3.53	3.44	3.43	3.21	2.82	2.82	1
LITHUANIA	5.40	5.83	4.17	3.70	3.71	2.97	2.39	2.15	1.88	1.95	2.01	2.22	1
LUXEMBOURG	4.74	4.90	2.49	2.16	2.40	2.23	2.13	2.02	1.86	1.68	1.74	1.75	2
MALTA	n/a	3.84	3.51	3.43	3.38	3.40	3.03	2.85	2.99	2.84	2.83	2.71	1
NETHERLANDS	4.97	5.34	4.86	4.52	4.55	4.27	3.78	3.37	2.93	2.59	2.41	2.40	1
POLAND	6.09	8.05	7.23	6.48	6.70	6.95	5.14	4.10	4.40	4.40	4.40	4.40	1
PORTUGAL	4.78	5.42	2.69	2.43	3.74	3.89	3.26	3.21	2.38	1.90	1.59	2.59	2
ROMANIA	6.60	6.67	7.16	5.31	5.84	5.03	4.73	5.06	3.99	3.46	3.70	5.20	2
SLOVAKIA	n/a	6.04	5.90	5.24	4.84	4.74	4.10	3.38	2.70	2.03	1.70	1.80	1
SLOVENIA	6.50	6.73	4.45	3.34	3.77	3.37	3.20	3.21	2.53	2.33	2.50	2.44	1
SPAIN	5.10	5.67	3.25	2.53	3.37	3.30	3.04	2.96	2.24	2.01	1.95	1.97	2
SWEDEN	4.58	5.25	2.06	2.39	3.87	3.48	2.75	2.24	1.66	1.60	1.58	1.50	2
UNITED KINGDOM	5.69	5.75	4.21	3.81	3.62	3.69	3.24	3.12	2.62	2.34	2.03	2.11	1
AUSTRALIA	8.20	8.91	6.02	7.28	7.74	6.98	6.18	5.95	5.58	5.42	5.24	5.26	2
BRAZIL	n/a	n/a	n/a	n/a	10.30	8.50	8.10	9.30	10.10	10.80	9.10	8.00	6
CANADA	n/a	n/a	n/a	n/a	n/a	n/a	3.14	3.05	2.70	2.70	2.91	3.45	1
ICELAND	5.24	6.03	5.67	5.14	4.82	4.24	3.92	3.86	3.98	3.87	3.88	3.85	6
JAPAN	2.82	2.89	2.74	2.36	2.32	1.95	1.87	1.62	1.52	1.06	1.23	1.36	6
NORWAY	n/a	n/a	n/a	n/a	n/a	n/a	3.98	3.78	2.86	2.43	2.50	2.45	6
RUSSIA	12.60	12.90	14.30	13.10	11.90	12.29	12.44	12.45	13.35	12.48	10.64	9.56	1
SOUTH KOREA	6.34	7.00	5.54	5.00	4.92	4.63	3.86	3.55	3.03	2.91	3.27	3.39	6
SWITZERLAND	3.32	3.33	2.79	2.58	2.39	2.18	2.02	1.89	1.77	1.63	1.53	1.45	6
TURKEY	18.30	18.63	15.60	11.05	11.59	12.37	9.69	11.86	12.31	13.25	12.14	19.3	1
USA	6.34	6.04	5.04	4.69	4.46	3.66	3.98	4.17	3.85	3.65	3.99	4.65	5

Source: *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:
- Cyprus
- Czech Republic
- Iceland

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. Amount of gross lending with a variable interest rate

Fixation period of up to 1 year, %

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
AUSTRIA	60.6	61.7	69.9	73.7	74.9	78.3	81.4	84.0	76.1	63.6	51.8	43.5
BELGIUM	1.2	2.5	28.3	32.7	9.9	2.2	5.8	4.2	0.6	0.9	1.4	6.7
BULGARIA	93.4	97.7	99.3	97.5	97.2	94.7	96.8	96.1	93.4	97.2	98.7	98.7
CROATIA	n/a	n/a	n/a	n/a	63.3	60.4	70.5	72.2	77.5	50.7	30.7	15.7
CYPRUS	n/a	78.7	78.2	66.0	73.6	80.3	85.7	91.7	95.1	96.1	97.9	94.8
CZECH REPUBLIC	45.0	43.0	56.0	56.0	56.4	n/a	34.2	37.3	30.6	25.4	20.5	18.9
DENMARK	n/a	n/a	n/a	n/a	n/a	n/a	n/a	23.0	14.1	17.8	19.2	15.5
ESTONIA	98.5	83.3	92.2	63.1	72.6	77.2	86.3	88.2	89.3	89.4	88.9	88.6
FINLAND	n/a	n/a	n/a	n/a	n/a	n/a	95.8	93.7	92.9	92.5	95.2	96.3
GERMANY	15.0	15.1	17.0	16.6	16.9	15.0	16.3	15.8	12.4	12.0	11.4	11.7
GREECE	27.5	29.4	68.5	76.5	79.2	88.6	87.8	90.3	92.4	85.6	82.0	85.8
HUNGARY	n/a	n/a	n/a	83.4	75.6	61.5	44.1	47.1	45.0	41.9	41.0	16.0
IRELAND	71.9	82.3	88.5	70.2	78.4	87.7	83.6	86.6	66.0	65.4	49.5	39.0
ITALY	n/a	n/a	n/a	n/a	n/a	n/a	n/a	77.7	47.9	37.5	33.3	33.3
LATVIA	62.9	61.5	87.6	87.8	90.4	91.7	96.4	96.3	95.3	92.7	93.8	95.7
LITHUANIA	70.8	64.4	85.5	79.2	77.0	78.4	83.6	89.2	88.1	85.8	91.1	97.3
LUXEMBOURG	100.0	100.0	88.0	86.9	85.3	72.4	68.8	74.8	52.1	45.0	42.3	46.9
MALTA	82.3	93.2	94.4	90.8	98.4	89.9	93.4	72.8	72.4	72.2	74.2	62.7
NETHERLANDS	17.2	14.8	24.7	20.8	21.9	23.1	24.3	19.6	14.5	13.7	13.7	16.2
POLAND	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
PORTUGAL	99.0	95.7	98.0	99.2	98.9	94.6	91.2	92.3	92.1	66.4	60.3	65.0
ROMANIA	n/a	n/a	n/a	n/a	n/a	n/a	n/a	88.0	85.0	93.0	93.0	75.0
SLOVAKIA	48.3	54.8	48.9	30.3	24.2	17.2	12.8	7.9	6.2	4.0	2.0	1.7
SLOVENIA	80.2	71.7	95.1	96.3	94.9	97.3	98.5	98.0	77.7	59.1	45.6	47.8
SPAIN	89.5	90.9	89.2	86.4	81.8	77.8	67.7	64.5	62.9	46.3	42.4	36.3
SWEDEN	47.3	65.4	87.7	69.8	53.8	56.3	64.3	75.7	73.0	76.0	71.7	69.1
UNITED KINGDOM	41.8	52.4	37.8	56.9	44.1	35.9	19.0	13.2	15.8	16.0	11.5	7.5
CANADA	n/a	n/a	n/a	n/a	n/a	n/a	16.6	26.9	33.7	18.3	18.4	27.6
JAPAN	26.7	36.0	49.0	52.5	54.5	58.0	49.7	52.5	56.5	50.2	50.7	n/a
NORWAY	n/a	n/a	n/a	n/a	n/a	n/a	n/a	93.0	90.0	92.0	94.0	94
SOUTH KOREA	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	61.0	71.1	64.8

***Sources:** European Mortgage Federation National Experts, National Central Banks*

Note:
This dataset has been newly introduced in Hypostat 2018.

The series have been revised for at least two years in:
- Austria
- Croatia
- Estonia

6. Average amount of a Mortgage granted

EUR

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
BELGIUM	n/a	n/a	125302	129815	132246	136062	134975	138,084	144,159	149,126	154,717	158,649
CZECH REPUBLIC	n/a	n/a	n/a	n/a	n/a	n/a	41,833	40,703	47,913	59,036	69,054	71,745
DENMARK	n/a	119,073	122,730	126,849	129,030	131,649	130,288	132,820	138,767	142,238	145,861	149,750
FINLAND	85,377	87,391	90,626	93,186	93,990	94,502	94,416	94,171	95,735	97,215	98,735	n/a
FRANCE	121,281	120,515	110,098	127,016	135,352	137,241	142,563	145,313	149,018	153,857	161,350	170,200
GERMANY	n/a	n/a	175,000	n/a	n/a	185,000	n/a	n/a	212,000	n/a	236,000	n/a
HUNGARY	n/a	n/a	n/a	n/a	16,358	15,108	13,945	15,322	17,032	18,944	21,670	n/a
IRELAND	213,841	208,962	176,258	171,561	172,462	166,056	166,450	174,269	180,963	191,719	209,373	216,941
LATVIA	n/a	n/a	n/a	39,041	30,709	25,445	27,438	30,315	31,390	25,206	34,276	37,407
POLAND	49,499	58,421	46,781	51,557	50,445	47,493	47,604	49,364	50,633	50,562	57,369	302,641
ROMANIA	n/a	n/a	39,606	38,954	36,880	29,153	24,209	33,306	34,418	35,632	39,299	59,493
SLOVAKIA	47,937	51,921	53,195	52,401	55,141	53,692	59,267	62,091	59,035	n/a	n/a	41,899
SPAIN	148,865	139,655	117,804	116,934	111,922	103,438	100,011	102,253	106,736	109,766	116,721	123,727
UNITED KINGDOM	185,571	152,012	126,266	139,886	138,268	151,226	150,131	169,328	199,016	183,165	176,805	216,692
AUSTRALIA	148,387	147,680	159,145	210,965	224,878	240,677	220,343	220,594	239,968	244,373	245,927	243,527
BRAZIL	18,210	26,727	28,583	40,662	51,313	51,025	52,260	50,171	38,763	37,930	43,003	37,061
CANADA	n/a	n/a	n/a	n/a	n/a	130,525	134,562	140,223	146,034	152,444	158,349	163,191
ICELAND	n/a	n/a	n/a	n/a	n/a	n/a	72,842	72,003	52,278	n/a	n/a	121,582
JAPAN	186,853	204,723	239,527	269,959	286,139	312,713	244,794	231,274	253,220	290,624	270,053	281,104
NORWAY	n/a	n/a	n/a	n/a	n/a	131,236	n/a	n/a	116,653	n/a	n/a	123,470
RUSSIA	n/a	51,520	26,561	31,315	33,492	37,367	38,761	34,185	24,396	23,201	28,211	27,646
TURKEY	25,247	25,695	20,281	26,643	23,310	23,932	23,782	21,509	22,530	22,476	19,247	n/a

Source: *European Mortgage Federation National Experts, National Central Banks, Japan Housing Finance Agency*

Notes:

- Please note that the conversion to euros is based on the yearly average bilateral exchange rate (provided by the ECB)
- Please note that due to the conversion to euros, changes observed for countries not belonging to the euro area may be due to exchange rate fluctuations. To obtain values in national currency, please refer to the exchange rates used, on Table 30 of this publication.
- For Belgium it represents the average of the year for the purchase of a dwelling
- 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:

- Brazil

7. Total Outstanding Non-Residential Mortgage Loans

Total Amount, End of the Year, EUR million

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
CZECH REPUBLIC	11,275	13,682	12,099	12,356	12,010	12,023	12,035	13,544	14,435	16,446	18,141	19,664
DENMARK	106,379	118,637	127,141	130,405	133,754	138,160	145,158	151,264	143,427	148,532	150,540	153,352
ESTONIA	3,943	4,111	3,937	3,658	3,395	3,371	3,223	3,250	3,339	3,509	9,471	6,834
FINLAND	7,811	11,148	14,027	15,441	16,473	16,854	18,174	19,501	20,713	22,117	24,129	26,493
GERMANY	260,008	254,862	255,721	251,450	259,134	254,014	250,631	247,345	250,310	249,295	261,102	265,796
GREECE	4,774	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
HUNGARY	4,744	7,401	7,838	8,380	7,051	6,805	6,112	n/a	n/a	n/a	n/a	n/a
IRELAND	17,828	16,193	15,147	32,734	29,979	29,269	27,710	25,108	22,737	20,493	17,890	14,211
ITALY	69,150	66,240	71,311	74,303	73,234	93,216	87,260	79,915	87,372	81,591	n/a	n/a
LATVIA	3,770	4,600	4,370	3,658	3,144	2,582	2,298	2,034	1,898	2,255	2,025	1,664
MALTA	1,403	1,662	1,766	1,506	1,489	1,447	1,350	1,391	1,228	1,252	1,286	1,399
NETHERLANDS	23,440	23,772	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
POLAND	9,765	11,582	12,192	12,125	11,722	13,693	13,116	13,055	13,952	13,616	18,532	16,187
ROMANIA	n/a	17,935	17,742	19,264	20,140	19,966	19,244	17,763	16,887	15,409	14,189	14,459
SPAIN	400,765	414,512	420,669	396,719	339,739	235,151	159,599	134,581	129,690	115,889	n/a	n/a
AUSTRALIA	257,177	219,616	274,616	351,844	375,709	398,830	355,417	422,679	426,910	445,847	n/a	n/a
BRAZIL	904	1,112	3,013	3,367	13,329	15,885	16,508	20,555	16,862	20,783	15,034	10,439
CANADA	570,531	617,533	589,411	595,523	631,219	687,209	733,916	792,560	863,825	329,722	355,333	405,309
ICELAND	22,416	23,042	21,925	22,958	13,660	11,430	11,332	11,092	n/a	n/a	n/a	n/a
JAPAN	n/a	n/a	188,721	239,740	259,354	230,744	182,518	183,992	211,584	233,759	218,645	235,407
NORWAY	n/a	n/a	9,100	11,943	12,391	14,195	13,626	13,550	13,027	13,752	13,399	19,556
RUSSIA	4,066	4,841	3,936	4,068	3,492	3,119	2,573	1,791	819	693	469	299
SINGAPORE	—	—	—	—	45,963	51,791	52,103	52,817	58,110	59,779	62,087	70,214
USA	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	4,153,133	3,988,682

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

1) Time series breaks

- Latvia: 2003 (due to a change in the statistical source)

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

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.

8. Total Outstanding Residential Loans to GDP Ratio

%

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
AUSTRIA	23.2	24.5	25.5	27.0	27.1	27.1	27.1	27.2	28.1	28.6	28.2	29.3
BELGIUM	36.7	38.7	43.5	44.3	45.4	47.4	48.3	49.2	50.5	52.1	53.3	54.7
BULGARIA	8.6	10.2	10.2	9.7	8.7	8.5	8.3	8.2	7.8	7.7	8.3	8.5
CROATIA	14.7	15.6	17.0	18.3	18.7	18.9	18.4	18.1	17.3	14.9	14.5	14.2
CYPRUS	39.4	44.7	55.6	61.8	63.6	65.1	65.3	66.2	65.7	63.2	57.9	41.8
CZECH REPUBLIC	9.1	9.2	14.1	15.4	15.6	17.3	17.3	18.3	19.0	19.8	23.6	21.3
DENMARK	83.9	85.8	93.7	92.1	92.3	90.6	89.6	88.2	87.9	87.8	86.1	84.6
ESTONIA	34.6	37.6	43.2	40.6	35.3	32.6	31.1	30.7	31.1	31.6	30.9	29.6
FINLAND	33.3	34.9	39.7	41.0	41.5	43.2	43.4	43.7	43.9	43.5	42.9	41.9
FRANCE	33.3	35.1	37.7	39.9	41.0	41.7	38.5	38.8	39.4	40.4	41.6	43.0
GERMANY	46.0	44.7	46.6	44.7	43.1	43.0	42.8	42.2	42.0	42.2	42.3	42.7
GREECE	29.8	32.1	33.9	35.6	37.9	39.0	39.3	38.9	38.3	35.2	33.1	30.7
HUNGARY	17.0	20.7	23.8	25.0	21.7	20.1	18.2	16.2	13.5	12.3	11.0	10.3
IRELAND	71.3	79.2	87.0	61.4	58.8	55.6	52.7	46.4	33.5	31.5	28.6	26.2
ITALY	16.5	16.2	17.8	21.9	22.5	22.7	22.5	22.1	21.9	21.9	21.9	21.6
LATVIA	29.6	29.5	36.6	36.9	29.7	24.2	22.2	19.9	18.5	17.7	16.2	13.9
LITHUANIA	16.7	18.5	22.4	21.3	18.8	17.4	16.7	16.4	16.5	17.0	17.1	17.2
LUXEMBOURG	39.5	41.8	46.2	46.3	46.9	49.2	50.3	50.1	51.1	53.4	55.4	56.2
MALTA	35.0	36.2	40.0	40.4	42.3	43.1	42.9	42.4	41.0	41.2	40.9	40.2
NETHERLANDS	94.5	95.0	102.1	102.6	102.6	102.8	99.0	97.0	95.1	93.8	91.2	92.4
POLAND	10.4	12.7	16.6	18.7	18.9	20.4	20.5	20.1	21.1	21.6	20.0	20.3
PORTUGAL	57.6	58.8	63.1	63.6	64.7	65.6	62.6	59.2	54.8	51.4	48.7	46.6
ROMANIA	3.3	3.6	4.6	5.4	5.7	6.6	6.4	6.7	7.2	7.5	7.6	7.8
SLOVAKIA	12.0	12.9	14.8	16.1	17.4	18.8	20.6	22.8	25.0	27.7	29.9	28.2
SLOVENIA	7.6	9.0	10.9	13.4	14.0	14.6	14.6	14.2	14.2	14.1	13.8	13.6
SPAIN	53.7	54.8	56.7	57.4	57.2	57.2	55.5	53.2	48.7	45.7	42.8	40.6
SWEDEN	61.1	58.5	77.0	79.2	76.2	79.1	78.1	78.4	83.6	83.2	84.3	87.5
UNITED KINGDOM	70.0	62.8	77.8	75.3	76.0	71.8	71.5	70.5	67.2	64.3	66.2	65.8
EURO AREA 19	40.9	41.5	44.1	44.5	44.4	44.6	43.4	42.8	42.0	41.8	41.5	41.7
EU 28	45.5	44.0	48.8	49.1	49.0	49.0	48.0	47.6	46.9	46.0	45.7	45.7
AUSTRALIA	48.9	35.3	62.4	62.8	55.5	53.3	47.0	46.8	50.6	60.7	67.0	n/a
BRAZIL	1.8	1.5	2.9	3.6	3.9	5.1	5.8	6.6	7.0	9.1	8.3	8.3
ICELAND	72.3	62.5	76.5	89.7	79.4	73.6	76.7	70.8	64.1	65.4	60.3	56.4
JAPAN	36.9	40.8	38.3	40.0	39.1	35.1	35.1	33.0	36.8	34.2	36.9	38.1
NORWAY	59.7	49.7	67.4	64.8	63.4	65.7	62.4	64.1	69.7	81.9	81.2	76.1
RUSSIA	1.9	2.4	3.1	2.7	2.4	3.1	3.7	3.0	4.1	5.9	5.9	6.2
TURKEY	n/a	n/a	n/a	n/a	28.6	34.0	36.3	37.4	36.9	37.2	37.0	31.6
SINGAPORE	n/a	n/a	n/a	n/a	n/a	n/a	29.3	32.7	30.7	33.6	33.4	33.4
SOUTH KOREA	3.8	3.0	4.4	4.9	4.7	5.5	5.4	5.8	5.7	5.4	5.9	4.6
SWITZERLAND	n/a	117.6	125.0	126.8	139.1	132.1	135.1	138.9	142.8	142.1	148.7	141.4
USA	82.5	81.5	81.8	69.9	65.8	61.8	59.6	57.1	55.7	55.4	44.9	53.1

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

1) Time series breaks:
- See Table 1

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

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.

9. Total Outstanding Residential Loans to Disposable Income of Households Ratio

%

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
AUSTRIA	37.2	39.5	40.2	43.4	44.3	43.8	44.4	44.9	47.1	47.4	47.7	50.1
BELGIUM	62.3	63.9	69.6	73.7	76.9	80.5	82.1	84.4	88.0	91.3	94.2	95.6
BULGARIA	15.3	17.1	16.7	16.1	14.6	14.5	13.9	14.0	12.8	12.2	13.1	15.1
CROATIA	24.4	25.7	26.3	28.0	28.2	28.2	28.2	27.5	20.1	18.0	n/a	n/a
CYPRUS	58.3	64.3	80.5	89.3	91.9	94.5	92.9	100.2	100.2	94.7	88.7	66.7
CZECH REPUBLIC	17.6	17.3	25.3	27.6	28.4	31.4	31.6	34.2	36.3	37.9	45.0	40.2
DENMARK	185.5	192.0	196.2	191.8	189.4	186.9	184.6	184.2	179.4	174.7	172.6	167.2
ESTONIA	67.7	66.0	71.5	70.3	63.6	59.6	56.4	55.1	54.6	54.8	55.1	5.4
FINLAND	63.6	65.4	67.7	69.5	71.0	72.8	72.4	73.1	73.7	73.9	73.9	72.4
FRANCE	51.6	54.2	56.4	59.9	62.3	63.9	59.6	60.2	61.9	63.1	65.4	68.5
GERMANY	71.1	68.7	69.4	68.0	66.7	66.1	66.4	66.4	66.8	67.3	67.3	68.5
GREECE	43.0	45.7	46.5	50.4	53.7	55.9	58.2	57.3	57.9	53.9	51.6	48.0
HUNGARY	30.2	37.5	42.2	45.0	37.7	34.6	31.7	29.1	25.1	22.7	20.0	18.1
IRELAND	152.1	152.1	163.3	118.6	119.5	111.6	108.8	103.0	96.3	91.0	85.5	76.0
ITALY	24.0	23.5	25.5	32.1	32.6	33.4	32.9	32.5	32.3	32.4	32.5	32.2
LATVIA	49.9	45.7	53.6	55.7	50.7	41.6	38.0	34.0	30.8	28.8	26.8	23.2
LITHUANIA	27.7	29.0	31.4	30.9	28.8	27.6	26.2	26.4	26.4	26.8	28.1	28.1
LUXEMBOURG	101.1	104.4	108.5	113.8	121.1	122.7	127.8	132.1	136.4	141.1	146.2	144.8
NETHERLANDS	198.1	202.5	210.0	214.9	213.8	214.1	206.7	201.9	200.5	197.1	193.4	187.6
POLAND	16.9	20.6	26.3	29.8	31.1	33.4	33.5	33.2	35.6	35.6	33.8	34.6
PORTUGAL	83.0	83.0	87.7	88.3	91.1	91.7	88.6	85.3	79.3	74.1	71.0	68.5
ROMANIA	5.5	6.1	7.8	8.8	9.9	11.9	9.1	9.3	9.8	10.6	10.8	13.5
SLOVAKIA	20.7	22.0	23.2	26.2	29.2	31.6	34.8	38.5	42.0	46.6	51.0	48.0
SLOVENIA	12.7	14.9	17.2	21.0	21.9	22.9	23.1	22.9	23.3	23.2	23.0	22.8
SPAIN	89.2	89.1	87.5	90.1	88.2	88.6	85.7	82.3	76.6	73.0	69.7	66.9
SWEDEN	131.7	121.7	149.3	157.8	150.3	151.2	148.3	149.5	164.4	164.5	167.4	171.9
UNITED KINGDOM	106.3	94.3	110.9	109.3	112.4	104.4	104.3	104.5	96.7	94.7	98.7	97.7
EURO AREA 19	65.1	65.6	67.6	69.6	69.8	70.4	68.9	68.4	68.3	68.3	68.5	n/a
EU 28	73.0	70.1	75.0	76.8	77.4	77.3	75.8	75.9	75.2	74.2	75.0	n/a
NORWAY	145.5	125.4	150.4	147.4	147.7	154.0	142.9	142.8	143.2	159.4	153.6	159.9
USA	103.7	113.0	102.1	90.2	91.0	76.6	75.4	81.4	73.4	75.4	66.7	n/a

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

1) Time series breaks:
- See Table 1

2) The series has been revised for at least two years in:
- See Table 1

3) Notes:
- For further details on the methodologies, please see "Annex: Explanatory Note on data"
- n/a : figure not available
- Please note that the disposable income of households at current prices has been taken in euros directly from AMECO.

10. Total Outstanding Residential Loans per Capita

Population over 18 years, EUR

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
AUSTRIA	9,851	10,707	10,845	11,749	12,255	12,506	12,602	12,930	13,664	14,075	14,391	15,494
BELGIUM	15,051	16,172	17,752	18,749	19,648	20,787	21,322	22,109	23,134	24,422	25,779	27,123
BULGARIA	444	607	608	597	581	581	574	577	585	620	709	805
CROATIA	1,855	2,146	2,190	2,361	2,397	2,381	2,318	2,266	2,234	2,017	2,075	2,152
CYPRUS	11,959	14,205	16,781	18,604	18,954	18,518	17,158	16,962	17,205	16,949	16,196	12,463
CZECH REPUBLIC	1,494	1,741	2,442	2,800	2,958	3,213	3,137	3,317	3,703	4,036	5,216	5,078
DENMARK	46,228	48,651	50,462	51,869	52,589	52,702	52,546	52,703	53,198	53,692	54,311	54,532
ESTONIA	5,179	5,710	5,614	5,490	5,418	5,406	5,477	5,656	5,909	6,231	6,668	7,125
FINLAND	14,884	16,086	16,969	18,003	19,059	19,990	20,311	20,519	20,917	21,307	21,693	21,989
FRANCE	13,091	14,083	14,602	15,812	16,677	17,132	15,966	16,236	16,759	17,318	18,289	19,312
GERMANY	16,978	16,783	16,788	16,865	17,379	17,636	17,926	18,280	18,792	19,272	19,968	20,879
GREECE	7,675	8,559	8,833	8,796	8,553	8,173	7,840	7,710	7,545	6,893	6,616	6,400
HUNGARY	2,131	2,737	2,747	3,012	2,681	2,453	2,269	2,106	1,837	1,728	1,683	1,687
IRELAND	42,763	44,098	43,317	30,081	29,324	28,380	27,542	26,156	25,146	24,354	23,409	22,919
ITALY	5,499	5,433	5,727	7,168	7,454	7,401	7,277	7,094	7,147	7,268	7,407	7,480
LATVIA	3,731	4,014	3,872	3,758	3,494	3,150	3,019	2,841	2,750	2,729	2,738	2,603
LITHUANIA	1,878	2,359	2,355	2,356	2,368	2,375	2,404	2,487	2,573	2,778	3,069	3,364
LUXEMBOURG	39,460	42,102	44,094	47,089	50,225	52,227	54,839	57,208	59,127	61,324	64,541	68,145
MALTA	6,275	6,814	7,445	7,964	8,578	9,061	9,468	10,174	10,768	11,280	11,910	12,481
NETHERLANDS	45,724	47,835	49,241	50,208	50,733	50,679	49,115	48,676	48,696	48,989	49,149	51,785
POLAND	1,074	1,521	1,707	2,195	2,328	2,564	2,602	2,656	2,921	2,957	2,991	3,234
PORTUGAL	11,854	12,289	12,892	13,292	13,180	12,791	12,382	11,951	11,523	11,169	11,032	11,007
ROMANIA	252	320	347	412	465	539	570	624	714	804	895	998
SLOVAKIA	1,588	1,988	2,192	2,498	2,824	3,124	3,477	3,937	4,460	5,085	5,726	5,734
SLOVENIA	1,607	2,041	2,333	2,851	3,039	3,089	3,117	3,140	3,244	3,359	3,512	3,669
SPAIN	15,732	16,249	16,078	16,232	15,973	15,455	14,853	14,480	13,808	13,421	13,039	12,813
SWEDEN	30,348	28,438	32,520	39,391	41,152	44,281	44,624	44,089	48,348	49,451	50,797	51,089
UNITED KINGDOM	32,979	25,794	27,569	28,347	29,025	30,019	29,467	31,801	34,317	29,985	29,673	30,158
EURO AREA 19	14,333	14,791	15,089	15,598	15,980	16,085	15,763	15,795	15,996	16,265	16,674	17,290
EU 28	14,756	14,278	14,825	15,478	15,887	16,181	15,918	16,248	16,833	16,543	16,872	17,404
AUSTRALIA	17,810	16,455	24,087	31,635	34,634	35,406	29,833	30,935	33,816	36,990	38,832	n/a
BRAZIL	129	139	249	431	561	665	717	913	777	1,029	926	892
ICELAND	50,259	29,266	29,572	37,886	35,162	33,956	36,915	37,310	38,917	46,845	46,463	45,953
JAPAN	10,583	13,800	12,991	15,877	17,354	15,424	12,269	12,320	13,836	14,991	14,018	15,683
NORWAY	49,636	43,231	50,793	55,903	59,714	67,408	62,481	60,540	60,047	67,159	65,455	68,303
RUSSIA	147	243	223	260	319	441	517	431	437	621	669	786
TURKEY	n/a	n/a	n/a	n/a	1,139	1,513	1,613	1,668	1,885	1,907	1,934	1,772
SINGAPORE	n/a	n/a	n/a	n/a	n/a	n/a	66,803	79,125	85,738	94,554	98,924	104,781
SOUTH KOREA	460	427	501	721	749	891	902	1,064	1,071	1,039	982	3,162
SWITZERLAND	n/a	76,912	79,129	96,812	103,789	108,093	109,474	114,579	128,865	131,847	123,092	131,499
USA	35,714	37,493	35,186	33,256	33,172	31,454	29,714	33,372	37,263	39,104	35,031	37,503

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:

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

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

11. Owner Occupation Rate

%

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
AUSTRIA	59.2	57.9	57.6	57.4	52.4	57.5	57.3	57.2	55.7	55.0	55.0	55.4
BELGIUM	72.9	73.1	72.7	71.6	71.8	72.4	72.3	72.0	71.4	71.3	72.7	72.7
BULGARIA	87.6	87.1	86.8	86.9	87.2	87.4	85.7	84.3	82.3	82.3	82.9	83.6
CROATIA	n/a	n/a	n/a	88.2	90.1	89.6	88.5	89.7	90.3	90.0	90.5	90.1
CYPRUS	74.1	72.3	74.1	73.1	73.5	73.2	74.0	72.9	73.0	72.5	70.7	n/a
CZECH REPUBLIC	74.5	75.8	76.6	78.7	80.1	80.4	80.1	78.9	78.0	78.2	78.5	78.7
DENMARK	67.1	66.5	66.3	66.6	68.7	66.0	64.5	63.3	62.7	62.0	62.4	60.5
ESTONIA	86.8	88.9	87.1	85.5	83.5	82.2	81.1	81.5	81.5	81.4	81.8	82.4
FINLAND	73.6	73.2	74.1	74.3	74.1	73.9	73.6	73.2	72.7	71.6	71.4	71.6
FRANCE	60.5	62.1	63.0	62.0	63.1	63.7	64.3	65.0	64.1	64.9	64.4	n/a
GERMANY	n/a	n/a	n/a	53.2	53.4	53.3	52.6	52.5	51.9	51.7	51.4	n/a
GREECE	75.6	76.7	76.4	77.2	75.9	75.9	75.8	74.0	75.1	73.9	73.3	73.5
HUNGARY	88.5	89.0	89.8	89.7	89.3	89.8	88.7	88.2	86.3	86.3	85.3	86.0
IRELAND	78.1	77.3	73.7	73.3	70.2	69.6	69.9	68.6	70.0	69.8	69.5	n/a
ITALY	73.2	72.8	72.8	72.6	73.2	74.2	73.3	73.1	72.9	72.3	72.4	n/a
LATVIA	86.0	86.0	87.2	84.3	82.8	81.5	81.2	80.9	80.2	80.9	81.5	81.6
LITHUANIA	89.4	92.2	91.5	93.6	92.2	91.9	92.2	89.9	89.4	90.3	89.7	n/a
LUXEMBOURG	74.5	73.8	70.4	68.1	68.2	70.8	73.0	72.5	73.2	73.9	74.7	n/a
MALTA	79.8	79.9	78.5	79.5	80.2	81.8	80.3	80.0	80.8	81.4	81.3	81.6
NETHERLANDS	66.6	67.5	68.4	67.2	67.1	67.5	67.1	67.0	67.8	69.0	69.4	69.0
POLAND	62.5	66.0	68.7	81.3	82.1	82.4	83.8	83.5	83.7	83.4	84.2	84.0
PORTUGAL	74.2	74.5	74.6	74.9	75.0	74.5	74.2	74.9	74.8	75.2	74.7	74.5
ROMANIA	96.1	96.5	96.5	97.5	96.6	96.6	95.6	96.2	96.4	96.0	96.8	96.4
SLOVAKIA	89.1	89.3	89.5	90.0	90.2	90.4	90.5	90.3	89.3	89.5	90.1	n/a
SLOVENIA	81.3	81.3	81.3	78.1	77.5	76.2	76.6	76.7	76.2	75.1	75.6	75.1
SPAIN	80.6	80.2	79.6	79.8	79.7	78.9	77.7	78.8	78.2	77.8	77.1	76.3
SWEDEN	69.5	68.8	69.7	70.8	69.7	70.1	69.6	69.3	66.2	65.2	65.2	64.1
UNITED KINGDOM	73.3	72.5	69.9	70.0	67.9	66.7	64.6	64.4	63.5	63.4	65.0	n/a
EURO AREA 19	71.2	71.5	71.6	66.6	66.7	67.0	66.6	66.7	66.2	n/a	66.1	n/a
EU 28	71.4	71.7	71.9	66.8	66.9	67.2	66.9	66.9	66.4	66.4	69.3	n/a
ICELAND	86.4	85.8	84.2	81.3	77.9	77.3	77.5	78.2	77.8	78.7	n/a	n/a
NORWAY	83.8	86.1	85.4	82.9	84.0	84.8	83.5	84.4	82.8	82.7	81.5	n/a
TURKEY	60.8	60.9	60.8	n/a	59.6	60.7	61.1	60.4	n/a	n/a	59.1	n/a

Source: *Eurostat*

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

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.

12. Building Permits

Number issued

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
AUSTRIA	38,200	38,500	38,300	38,749	46,034	40,906	46,609	49,884	51,217	59,876	65,988	54,817
BELGIUM	53,923	52,651	45,456	49,872	44,352	46,811	49,141	54,903	46,181	50,977	50,390	62,428
BULGARIA	64,185	49,407	20,166	12,832	10,973	10,616	12,278	15,848	17,264	18,157	5,562	5,956
CROATIA	24,877	24,585	17,018	13,378	13,470	9,742	7,744	7,743	6,950	9,398	12,509	11,719
CYPRUS	9,521	8,896	8,950	8,777	7,506	7,172	5,341	4,933	5,014	5,354	5,728	6,408
CZECH REPUBLIC	47,298	47,389	41,954	39,158	39,656	34,006	29,475	28,127	28,886	31,002	32,069	30,702
DENMARK	22,599	16,126	9,847	17,097	18,930	13,720	12,338	17,442	24,301	32,023	28,289	31,040
ESTONIA	8,925	5,468	2,081	2,581	2,830	3,035	3,049	3,941	5,588	6,021	7,877	6,990
FINLAND	31,902	25,721	26,697	32,836	34,567	31,825	26,680	29,370	32,014	40,208	48,353	41,137
FRANCE	571,300	476,200	380,200	476,500	517,800	480,800	422,000	380,500	405,100	463,500	489,300	455,300
GERMANY	182,336	174,595	177,939	187,667	228,311	241,090	272,433	285,079	313,296	375,388	347,882	346,810
GREECE	41,790	34,021	27,447	23,380	15,114	9,066	5,675	4,620	4,618	4,305	4,930	5,685
HUNGARY	44,276	43,862	28,400	17,353	12,488	10,600	7,536	9,633	12,515	31,559	37,997	36,719
IRELAND	92,130	75,042	43,752	20,022	12,522	6,741	7,199	7,411	13,044	16,375	20,776	29,243
ITALY	250,271	191,783	141,587	119,409	112,391	82,058	53,408	46,796	42,920	44,848	37,300	39,519
LATVIA	5,877	3,749	2,244	1,844	2,022	2,262	2,369	2,295	2,193	1,998	2,766	2,750
LITHUANIA	8,869	8,189	5,994	5,876	4,951	5,768	7,118	6,868	7,028	8,397	7,682	8,082
LUXEMBOURG	4,934	4,017	3,693	3,892	4,323	4,305	3,761	6,360	4,558	4,846	5,048	5,468
MALTA	11,343	6,836	5,298	4,444	3,955	3,064	2,705	2,937	3,947	7,508	9,822	12,885
NETHERLANDS	87,918	87,198	72,646	61,028	55,804	39,354	27,233	41,320	55,599	53,567	69,741	69,782
POLAND	92,240	99,794	90,632	87,593	85,270	75,923	67,175	65,449	72,293	80,796	89,888	95,463
PORTUGAL	65,828	45,981	27,298	25,002	17,481	11,430	7,416	6,858	8,169	8,219	14,044	20,046
ROMANIA	56,618	61,092	48,833	42,189	39,424	37,852	37,776	37,672	39,112	38,653	41,603	42,694
SLOVAKIA	16,253	25,956	18,155	14,466	11,641	11,614	13,180	14,310	17,642	20,224	18,472	20,574
SLOVENIA	9,000	8,000	5,209	4,225	3,285	2,700	2,675	2,197	2,179	2,521	2,649	2,777
SPAIN	633,430	267,876	130,418	91,509	75,894	57,486	31,213	33,643	36,059	57,182	60,888	75,051
SWEDEN	28,710	24,937	21,603	28,795	29,513	26,008	34,472	42,819	56,663	6,554	71,458	59,323
AUSTRALIA	160,796	150,002	149,995	181,960	153,755	156,634	181,248	208,556	238,289	233,883	223,528	211,902
NORWAY	32,402	25,917	19,576	21,278	27,735	30,142	30,252	27,130	30,927	36,530	35,294	31,527
SINGAPORE	16,345	13,350	10,506	16,892	21,100	19,702	19,593	9,275	7,073	7,132	4,072	20,028
SOUTH KOREA	555,792	371,285	381,787	386,542	549,594	586,884	440,116	515,251	765,328	726,048	653,441	554,136
TURKEY	481,058	389,468	412,758	746,779	563,073	664,533	730,149	937,209	804,446	901,532	1,241,036	572,681
USA	1,398,400	905,400	583,000	604,600	624,100	829,700	990,800	1,052,124	1,182,582	1,206,600	1,282,000	1,317,900

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
- Belgium
- Denmark
- Finland
- France
- Luxembourg
- Turkey
- Sweden

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: 2017 figure takes into accout the first 9 months.

13. Housing Starts

Number of projects started per year

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
BELGIUM	54,450	50,380	44,929	47,569	41,574	44,818	44,696	52,826	43,520	n/a	n/a	n/a
BULGARIA	18 116	28 321	20,325	16,211	12,740	13,090	14,758	15,836	19,640	21,441	19,930	3,824
CZECH REPUBLIC	43,796	43,531	37,319	28,135	27,535	23,853	22,108	24,351	26,378	27,224	31,521	33,121
DENMARK	25,405	16,979	11,124	16,000	18,753	15,134	11,491	17,227	20,622	29,186	25,973	24,155
ESTONIA	n/a	n/a	n/a	n/a	1,150	1,577	2,343	3,841	3,882	2,706	3,611	n/a
FINLAND	32,044	23,360	23,467	33,641	33,014	30,040	27,841	25,109	31,893	36,490	44,251	45,676
FRANCE	489,200	399,100	346,100	413,800	431,100	382,800	357,800	337,800	346,300	382,700	436,800	418,700
GREECE	103,865	79,601	61,490	52,344	29,974	18,817	11,748	9,619	9,264	9,286	10,336	13,337
HUNGARY	27,396	22,314	8,985	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
IRELAND	48,876	22,852	8,599	6,391	4,365	4,042	4,708	7,717	8,747	13,234	17,572	22,467
ITALY	281,740	219,143	163,427	131,184	123,499	n/a	n/a	n/a	n/a	n/a	n/a	n/a
MALTA	11,343	n/a	n/a	n/a	3,955	n/a	n/a	n/a	n/a	n/a	n/a	n/a
POLAND	185,117	174,686	142,901	158,064	162,200	141,798	127,392	148,122	168,403	173,932	205,990	221,907
ROMANIA	87,643	143,139	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
SLOVAKIA	18,116	28,321	20,325	16,211	12,740	12,740	13,090	14,758	15,836	19,640	21,441	22,055
SLOVENIA	11,000	7,447	6,019	4,831	3,844	3,066	3,142	2,762	2,749	2,975	3,231	3,765
SPAIN	651,427	264,795	111,140	91,662	78,286	44,162	34,288	34,873	49,695	64,038	80,786	100,733
SWEDEN	27,564	21,207	17,960	27,544	26,706	213,918	30,502	36,740	47,948	60,203	62,879	53,000
UNITED KINGDOM	234,350	141,730	114,240	139,210	138,370	125,400	150,120	170,100	180,060	188,710	197,670	n/a
AUSTRALIA	150,923	145,129	135,827	158,229	150,018	151,373	168,337	201,073	223,066	230,230	216,427	221,606
BRAZIL	—	172,271	183,241	354,674	425,754	402,555	372,490	328,547	290,729	237,665	251,864	333,540
CANADA	228,343	211,056	149,081	189,930	193,950	214,827	187,923	189,329	195,535	197,916	219,763	212,843
ICELAND	4,446	3,172	192	321	142	466	769	582	1,612	1,133	2,836	2,525
JAPAN	1,035,598	1,039,214	775,277	819,020	841,246	893,002	987,254	880,470	920,537	974,137	946,396	952,936
NORWAY	31,893	25,083	19,021	22,226	28,225	29,202	27,634	25,404	30,150	31,278	30,719	29,496
SINGAPORE	12,432	14,239	8,603	17,864	20,736	21,395	20,357	11,571	8,082	6,918	5,397	13,121
SOUTH KOREA	n/a	n/a	n/a	n/a	424,269	480,995	425,944	507,666	716,759	657,956	544,274	420,627
USA	1,355,000	906,000	554,000	587,000	609,000	780,000	925,000	1,003,000	1,112,000	1,174,000	1,203,000	1,249,900

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:
- Brazil
- Denmark
- Finland
- France
- Sweden
- United Kingdom

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

14. Housing Completions

Number of projects completed per year

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
AUSTRIA	45,870	53,233	36,833	32,808	36,429	37,832	40,441	42,543	41,672	43,874	48,658	n/a
BULGARIA	18,864	20,924	22,058	15,771	13,953	9,970	9,250	9,993	7,806	9,342	2,205	2,324
CROATIA	8,480	8,148	6,733	6,108	5,468	4,948	4,566	3,841	3,678	3,811	3,669	n/a
CYPRUS	16,501	18,195	16,644	13,434	9,091	6,565	3,833	2,718	2,390	2,570	2,993	n/a
CZECH REPUBLIC	41,649	38,380	38,473	36,442	28,630	29,467	25,238	23,954	25,095	27,322	28,575	33,868
DENMARK	31,318	26,772	19,026	12,334	13,417	17,632	16,644	15,704	15,007	21,138	24,459	27,496
ESTONIA	7,073	5,300	3,026	2,324	1,918	1,990	2,079	2,756	3,969	4,732	5,890	6,472
FINLAND	34,650	30,340	21,362	24,408	32,571	32,597	29,071	28,907	27,448	29,593	34,934	42,010
FRANCE	458,039	470,976	395,103	347,166	381,620	399,056	404,355	413,627	399,564	n/a	n/a	n/a
GERMANY	210,739	175,927	158,987	159,832	183,110	200,466	214,817	245,325	247,722	277,691	284,816	285,914
GREECE	137,391	104,621	51,955	54,545	53,099	37,336	23,162	13,559	8,540	6,655	6,282	6,125
HUNGARY	36,159	36,075	31,994	20,823	12,655	10,560	7,293	8,382	7,612	10,032	14,389	17,681
IRELAND	77,627	51,324	26,420	14,602	6,994	4,911	4,575	5,518	7,219	9,909	14,399	18,023
ITALY	281,740	219,143	163,427	131,184	123,499	133,900	118,600	103,600	86,200	81,600	n/a	n/a
LATVIA	9,319	8,084	4,187	1,918	2,662	2,087	2,201	2,630	2,240	2,197	2,271	2,966
LITHUANIA	3,023	4,444	3,740	2,824	2,162	2,304	2,642	3,357	3,091	3,856	6,420	6,434
LUXEMBOURG	3,023	4,444	3,740	2,824	2,162	2,304	2,642	3,357	n/a	n/a	n/a	n/a
NETHERLANDS	80,193	78,882	82,932	55,999	57,703	48,668	49,311	44,041	48,381	54,849	62,982	66,585
POLAND	133,778	165,192	160,019	135,818	131,148	152,904	145,388	143,235	147,821	163,394	178,460	185,170
PORTUGAL	67,463	59,256	47,915	35,442	26,069	19,302	12,430	7,794	6,611	7,256	8,636	12,308
ROMANIA	47,299	67,255	62,520	48,862	45,419	44,016	43,587	44,984	47,017	52,206	53,301	59,725
SLOVAKIA	16,473	17,184	18,834	17,076	14,608	15,255	15,100	14,985	15,471	15,672	16,946	19,071
SLOVENIA	8,000	9,968	8,530	6,355	5,468	4,307	3,484	3,163	2,776	3,163	3,044	3,037
SPAIN	641,419	615,072	366,887	240,920	157,405	114,991	64,817	46,822	45,152	40,119	54,610	64,354
SWEDEN	30,527	32,021	22,821	19,500	20,064	25,993	29,225	29,164	34,603	42,441	48,227	52,718
UNITED KINGDOM	223,590	187,330	157,140	135,990	140,710	141,580	135,600	145,140	172,020	171,350	194,830	n/a
AUSTRALIA	149,538	142,886	144,254	146,896	143,104	141,705	150,591	174,166	194,035	209,942	213,078	220,349
CANADA	208,889	214,137	176,441	186,855	175,623	180,093	185,494	181,428	194,461	187,605	190,923	200,262
ICELAND	3,348	2,978	893	1,148	565	1,076	934	1,149	1,120	1,513	1,768	2,303
NORWAY	31,056	28,640	21,705	18,090	20,046	26,275	28,456	28,072	28,265	29,286	31,470	32,830
RUSSIA	722,000	768,000	702,000	717,000	786,000	838,000	929,000	1,124,000	1,195,000	1,167,000	1,139,000	1,075,741
SINGAPORE	6,513	10,122	10,488	10,399	12,469	10,329	13,150	19,941	18,971	20,803	16,449	9,112
SOUTH KOREA	n/a	n/a	n/a	n/a	338,813	365,053	395,519	431,339	460,153	514,775	569,209	626,889
SWITZERLAND	42,915	44,191	39,733	43,632	47,174	43,134	50,166	49,162	53,126	52,034	50,209	53,975
TURKEY	247,386	263,402	329,861	316,223	455,209	461,446	613,286	679,759	657,418	666,296	738,740	771,207
USA	1,502,000	1,120,000	794,000	651,000	585,000	649,000	764,000	884,000	968,000	1,059,000	1,153,000	1,184,900

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:

- Austria
- Denmark
- Finland
- Ireland
- United Kingdom
- Turkey

3) Notes

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

15. Real Gross Fixed Investment in Housing

Annual % change

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
AUSTRIA	1.9	0.8	-5.7	0.6	2.9	-1.4	-0.2	-0.4	0.9	2.3	4.0	2.3
BELGIUM	2.9	-1.4	-8.6	2.6	-2.4	0.2	-3.3	5.6	0.3	3.7	0.1	1.0
BULGARIA	-7.2	22.4	-20.4	-40.8	-14.2	-26.7	-4.0	-3.3	-10.3	102.1	19.2	15.0
CYPRUS	8.1	-0.3	-19.6	-14.4	-16.1	-19.0	-37.6	1.9	3.7	20.3	33.4	16.7
CZECH REPUBLIC	26.2	-1.5	-4.6	10.3	-5.9	2.7	-7.7	10.2	22.5	5.0	5.2	12.8
DENMARK	-5.5	-16.7	-20.4	-8.9	15.8	-5.5	-7.8	6.8	5.3	6.8	12.9	4.8
ESTONIA	-3.2	-29.2	-35.9	-9.4	9.9	9.0	19.0	19.1	7.6	16.3	2.4	8.8
FINLAND	-0.4	-10.6	-13.9	24.1	5.3	-3.5	-5.3	-6.6	2.8	10.7	6.5	5.4
FRANCE	4.0	-3.0	-9.2	2.1	0.9	-2.2	-0.4	-1.9	1.1	2.2	4.7	1.6
GERMANY	-1.8	-3.2	-3.4	4.3	10.0	3.4	-0.8	3.0	-0.7	5.0	3.0	2.9
GREECE	14.4	-23.9	-19.6	-26.2	-14.6	-37.9	-31.1	-53.3	-25.8	-12.5	-5.5	17.2
HUNGARY	6.6	6.2	-3.4	-24.7	-27.4	-9.9	-6.0	11.0	16.8	9.7	16.0	8.8
IRELAND	-8.0	-16.7	-37.6	-32.9	-31.5	-24.8	7.3	14.5	6.0	21.6	19.5	24.4
ITALY	1.4	-1.7	-9.2	0.0	-6.9	-7.5	-4.5	-7.0	-1.3	1.2	2.7	3.8
LATVIA	41.4	-11.9	-52.4	-28.9	1.3	13.8	-1.3	9.7	7.6	-19.1	-10.4	22.8
LITHUANIA	14.9	24.3	-7.2	-29.7	1.0	2.3	11.5	16.9	14.9	6.8	-4.7	5.9
LUXEMBOURG	37.0	8.7	-22.3	-11.7	8.3	4.7	17.0	-7.1	-1.1	9.1	-0.8	13.4
MALTA	12.3	-21.4	-26.6	-16.1	0.5	-9.7	-7.8	1.3	26.4	34.0	44.3	19.3
NETHERLANDS	5.1	0.8	-14.7	-16.0	-3.6	-12.9	-12.2	6.1	20.0	21.7	12.0	7.7
POLAND	13.1	6.2	-2.3	-4.2	1.2	5.1	0.9	8.4	-11.5	-2.9	-2.7	3.9
PORTUGAL	-4.8	-13.1	-14.3	-10.4	-11.5	-7.7	-14.3	-1.1	1.1	5.1	6.4	5.9
ROMANIA	50.6	40.9	-14.2	2.2	-10.2	5.1	-11.2	-0.7	5.2	12.1	69.7	n/a
SLOVAKIA	13.8	2.0	14.0	-10.3	-3.6	0.1	17.8	-14.3	2.2	23.3	0.7	1.8
SLOVENIA	14.1	12.4	-20.5	-20.4	-12.4	-12.5	-7.9	-6.4	0.8	-0.3	3.0	4.8
SPAIN	1.3	-9.2	-20.3	-11.6	-13.3	-10.3	-10.2	11.3	-0.9	70.0	9.0	6.9
SWEDEN	6.8	-13.2	-19.0	12.7	8.0	-11.8	0.9	15.6	18.0	10.9	11.6	-0.7
UNITED KINGDOM	-1.5	-9.7	-20.3	4.2	3.9	-3.7	6.7	9.5	6.5	8.2	7.6	1.6
EU 28	1.7	-5.6	-12.6	-2.0	-0.6	-3.8	-2.3	2.1	1.5	5.6	5.7	3.4
EURO AREA 19	1.7	-5.3	-11.6	-2.4	-1.2	-3.7	-3.3	0.4	0.1	4.9	4.6	3.7
ICELAND	13.2	-21.9	-55.7	-18.0	5.4	6.9	10.8	14.8	-3.1	26.4	20.7	16.7
NORWAY	2.7	-9.0	-8.1	-1.6	17.0	10.9	5.3	-1.4	3.2	6.6	7.0	-6.0
TURKEY	6.0	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
USA	-18.8	-24.0	-21.2	-2.5	0.5	13.5	9.5	1.6	6.9	5.5	4.0	4.8

Sources: *Eurostat, OECD*

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

16. Total Dwelling Stock

Thousands units

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
AUSTRIA	3,998	4,029	4,061	4,083	4,441	4,463	4,489	4,507	4,506	4,542	4,600	n/a
BELGIUM	4,950	4,996	5,043	5,087	5,131	5,180	5,229	5,277	5,319	5,361	5,412	5,464
BULGARIA	3,747	3,767	3,789	3,804	3,900	3,909	3,918	3,928	3,935	3,944	3,951	3,959
CROATIA	n/a	n/a	n/a	n/a	1,924	n/a	n/a	n/a	n/a	n/a	n/a	n/a
CYPRUS	376	394	410	421	431	437	441	444	446	449	452	n/a
CZECH REPUBLIC	4,558	4,596	4,635	4,671	4,700	4,729	4,754	n/a	n/a	n/a	n/a	n/a
DENMARK	2,670	2,696	2,722	2,770	2,786	2,797	2,812	2,827	2,844	2,861	2,878	2,901
ESTONIA	638	645	651	654	656	658	n/a	n/a	n/a	n/a	n/a	n/a
FINLAND	2,477	2,499	2,517	2,537	2,556	2,580	2,600	2,618	2,634	2,655	2,680	n/a
FRANCE	31,449	31,819	32,174	32,520	32,860	33,212	33,908	34,223	34,537	34,881	35,224	35,571
GERMANY	39,918	40,058	40,184	40,479	40,630	40,806	40,995	41,221	41,446	41,703	41,968	42,227
GREECE	6,161	6,265	6,317	6,372	6,425	6,462	6,485	6,499	6,508	6,514	6,521	6,527
HUNGARY	4,238	4,270	4,303	4,331	4,349	4,394	4,402	4,408	4,415	4,420	4,427	4,439
IRELAND	1,912	1,960	1,982	1,992	1,999	2,003	2,007	2,014	2,022	2,004	1,974	1,994
ITALY	31,211	29,598	30,112	30,580	31,791	31,576	n/a	n/a	n/a	n/a	n/a	n/a
LATVIA	1,036	1,042	1,035	n/a	1,019	n/a	n/a	n/a	n/a	n/a	n/a	n/a
LITHUANIA	1,316	1,328	1,337	1,341	1,283	1,289	1,298	1,403	1,413	1,428	1,445	1,451
LUXEMBOURG	n/a	175	n/a	n/a	223	n/a	n/a	n/a	n/a	n/a	n/a	n/a
MALTA	n/a	n/a	n/a	n/a	224	n/a	n/a	n/a	n/a	n/a	n/a	n/a
NETHERLANDS	7,029	7,105	7,172	7,218	7,266	7,386	7,449	7,535	7,588	7,641	7,741	7,815
POLAND	12,994	13,150	13,302	13,422	13,560	13,723	13,853	13,983	14,119	14,272	14,440	n/a
PORTUGAL	5,744	5,793	5,826	5,852	5,879	5,898	5,910	5,920	5,926	n/a	n/a	n/a
ROMANIA	8,271	8,329	8,385	8,428	8,722	8,761	8,800	8,841	8,882	8,929	8,977	n/a
SLOVAKIA	1,970	1,987	2,006	2,023	2,036	n/a	n/a	n/a	n/a	n/a	n/a	n/a
SLOVENIA	820	830	838	845	850	854	857	860	n/a	n/a	n/a	n/a
SPAIN	24,027	24,591	24,938	25,131	25,209	25,271	25,245	25,209	25,171	25,129	25,097	25,076
SWEDEN	4,435	4,466	4,488	4,508	4,524	4,551	4,634	4,669	4,717	4,796	4,859	4,925
UNITED KINGDOM	26,059	26,317	26,529	26,696	26,855	27,008	27,151	27,306	27,498	27,713	27,954	n/a
AUSTRALIA	n/a	n/a	n/a	n/a	7,760	n/a	n/a	n/a	n/a	n/a	n/a	n/a
BRAZIL	56,339	58,181	59,253	57,324	62,117	63,768	65,130	67,039	68,037	68,899	69,471	71,015
ICELAND	126	129	130	131	131	132	132	134	135	136	138	140
JAPAN	n/a	57,586	n/a	n/a	n/a	n/a	60,629	n/a	n/a	n/a	n/a	62,420
NORWAY	2,243	2,274	2,301	2,343	2,369	2,399	2,427	2,456	2,485	2,516	2,548	2,582
RUSSIA	58,600	59,000	59,500	60,100	60,800	61,500	61,300	62,900	64,000	64,900	65,900	n/a
SINGAPORE	935	955	988	1,020	1,057	1,098	1,138	1,203	1,280	1,361	1,433	1,469
SOUTH KOREA	n/a	n/a	n/a	n/a	17,739	18,082	18,414	18,742	19,161	19,559	19,877	n/a
SWITZERLAND	n/a	n/a	4,079	4,131	4,178	4,235	4,289	4,352	4,421	4,421	4,470	n/a
TURKEY	n/a	n/a	n/a	n/a	19,482	n/a	n/a	n/a	n/a	n/a	n/a	n/a
USA	129,064	130,415	131,269	131,776	132,168	132,600	133,199	133,946	134,764	135,660	136,570	138,489

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:

- Brazil
- France
- Lithuania
- Spain

3) Notes

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

17. Number of Transactions

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
BELGIUM	125,718	121,604	115,069	128,094	128,621	124,358	124,356	135,180	105,632	115,351	125,678	129,479
CROATIA	3,110	3,025	2,861	2,319	2,169	2,357	1,997	2,410	1,672	2,791	2,429	2,880
CYPRUS	21,245	14,667	8,170	8,598	7,018	6,269	3,767	4,527	4,952	7,063	8,734	9,242
DENMARK	70,225	53,248	46,215	52,955	44,064	45,506	46,566	52,490	63,186	63,679	69,818	68,551
ESTONIA	40,008	28,738	20,809	23,747	23,327	26,760	30,141	31,093	33,081	33,410	51,780	59,303
FINLAND	87,411	70,483	71,012	70,689	69,099	71,645	63,440	58,520	61,954	61,334	62,654	60,276
FRANCE	1,179,600	965,900	829,400	1,040,300	1,092,500	938,900	954,700	913,900	1,033,000	1,104,000	1,245,000	1,242,000
GERMANY	468,000	467,000	485,000	525,000	571,000	576,000	565,000	562,000	577,000	575,000	567,000	569,000
GREECE	167,699	157,978	135,967	117,948	83,665	57,650	49,774	43,443	54,631	60,540	n/a	n/a
HUNGARY	121,844	87,565	44,375	28,618	26,818	31,802	34,662	47,238	56,178	55,153	61,180	63,168
IRELAND	121,844	87,565	44,375	28,618	26,818	31,802	34,662	47,238	56,178	55,153	61,180	63,168
ITALY	806,225	686,587	609,145	611,878	598,224	444,018	403,124	417,524	448,893	533,741	542,480	578,647
LATVIA	63,537	42,828	34,042	36,604	42,051	43,941	49,141	49,973	48,397	52,152	52,640	49,093
LUXEMBOURG	5,091	4,409	4,509	5,165	5,749	5,474	5,471	6,477	6,269	6,333	7,404	7,545
MALTA	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	6,502	n/a	n/a
NETHERLANDS	202,401	182,392	127,532	126,127	120,739	117,261	110,094	153,511	178,293	214,793	241,860	218,366
POLAND	65,792	77,526	60,894	76,698	86,897	116,555	124,685	130,656	160,789	173,467	n/a	n/a
PORTUGAL	281,367	241,040	205,442	129,950	93,618	76,398	79,775	84,215	107,302	127,106	153,292	178,691
ROMANIA	521,000	484,000	352,000	352,324	371,569	434,954	473,319	454,001	483,699	521,805	587,017	603,592
SLOVENIA	n/a	6,994	5,705	7,923	6,882	6,336	5,783	7,448	9,317	10,652	10,788	9,423
SPAIN	836,871	564,464	463,719	491,287	349,118	363,623	300,568	365,621	401,713	457,738	532,367	581,793
SWEDEN	163,676	146,882	146,582	152,072	144,946	143,675	151,582	159,536	168,298	160,200	162,929	156,510
UNITED KINGDOM	1,613,810	900,200	858,350	885,770	884,790	932,480	1,074,450	1,218,750	1,229,580	1,235,020	1,220,060	1,191,230
BRAZIL	515,688	563,813	622,895	858,370	946,633	921,823	996,171	992,171	890,786	771,410	638,722	733,724
ICELAND	13,163	5,218	3,039	4,012	5,887	6,690	7,431	8,314	10,067	11,074	12,106	12,190
JAPAN	150,500	170,800	168,800	164,600	166,800	154,900	169,467	n/a	n/a	n/a	n/a	n/a
NORWAY	74,926	65,241	70,995	100,177	110,844	113,276	109,437	112,147	119,681	121,578	114,382	118,196
RUSSIA	1,727,813	1,787,209	1,460,931	2,148,541	2,745,842	3,063,489	3,032,834	3,448,283	2,806,901	2,861,989	2,863,164	n/a
SINGAPORE	40,654	13,642	33,663	38,900	32,640	37,873	22,728	12,848	14,117	16,378	25,010	n/a
TURKEY	n/a	427,105	555,184	607,098	708,275	701,621	1,157,190	1,165,381	1,289,320	1,341,453	1,409,314	1,375,398
USA	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	6,123,000	5,957,000

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

2) The series has been revised for at least two years in:
- Brazil
- Finland
- France
- Germany
- Hungary

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.

18. Nominal House Price Indices

2007=100

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
AUSTRIA	100.0	101.1	105.0	111.6	116.3	130.7	136.7	141.5	147.3	158.1	164.1	175.4
BELGIUM	100.0	105.2	104.9	109.0	113.4	118.0	120.2	122.0	121.2	126.6	131.9	137.2
BULGARIA	100.0	125.0	99.5	89.3	84.4	82.8	81.0	82.2	84.4	90.4	98.2	103.6
CROATIA	100.0	107.5	106.2	97.5	104.6	102.8	92.7	93.5	95.0	89.2	95.4	101.9
CYPRUS	100.0	118.6	112.8	111.9	108.7	102.6	96.3	88.1	84.5	83.0	82.5	83.8
CZECH REPUBLIC	100.0	111.8	103.2	103.5	102.9	102.1	102.2	106.1	110.5	122.6	128.5	141.1
DENMARK	100.0	95.8	85.8	88.2	85.0	81.2	81.8	83.1	88.6	91.9	96.1	100.0
ESTONIA	100.0	90.4	56.8	60.0	65.1	69.8	77.2	87.8	93.9	98.4	103.7	110.2
FINLAND	100.0	100.6	100.3	109.1	112.0	113.8	115.7	115.0	114.1	115.0	116.3	117.4
FRANCE	100.0	96.2	92.3	99.3	102.9	100.7	98.9	96.4	95.9	97.4	100.7	103.9
GERMANY	100.0	103.3	102.6	103.2	105.7	108.9	112.2	115.7	121.0	128.2	135.6	146
GREECE	100.0	101.7	97.9	93.4	88.3	78.0	69.5	64.3	61.1	59.6	59.0	59.9
HUNGARY	100.0	101.0	94.7	89.8	88.2	85.6	80.4	83.0	98.0	115.0	130.3	154.1
IRELAND	100.0	93.0	75.2	65.1	54.0	46.7	47.3	55.1	61.5	66.0	73.2	80.7
ITALY	100.0	100.5	100.4	100.7	101.5	98.6	93.0	88.9	86.6	86.0	84.4	83.9
LATVIA	100.0	82.2	58.1	56.7	60.0	63.6	68.9	65.8	70.1	75.6	81.5	90.6
LITHUANIA	100.0	109.0	76.4	70.7	75.4	75.2	76.1	81.0	84.0	88.5	96.4	103.4
LUXEMBOURG	100.0	103.4	102.2	107.7	111.7	116.3	122.1	127.5	134.4	142.5	150.4	161.1
MALTA	100.0	111.1	106.2	107.4	105.9	109.2	108.7	111.5	118.0	124.6	147.0	154.4
NETHERLANDS	100.0	103.0	99.5	97.3	94.9	88.8	83.0	83.7	86.1	90.4	97.2	106.0
POLAND	100.0	98.9	92.2	90.1	89.5	82.1	81.3	82.8	83.7	85.8	89.8	99.9
PORTUGAL	100.0	103.8	102.8	103.6	98.5	91.6	89.8	93.7	96.5	103.4	117.0	132.3
ROMANIA	n/a	n/a	100.0	92.5	81.1	77.0	76.8	75.2	77.4	82.0	86.9	91.7
SLOVAKIA	100.0	122.1	108.6	104.3	101.1	99.9	99.0	98.2	99.1	103.3	109.9	115.6
SLOVENIA	100.0	107.0	96.8	96.9	99.5	92.7	87.9	82.1	82.7	85.4	92.3	101.2
SPAIN	100.0	100.7	93.3	89.6	84.6	77.2	72.7	71.0	71.7	73.1	74.8	77.4
SWEDEN	100.0	103.0	104.7	112.3	113.2	111.9	115.7	123.8	137.0	148.5	160.9	160.9
UNITED KINGDOM	100.0	95.5	87.0	92.0	90.7	91.0	93.4	100.8	106.9	114.3	119.6	123.3
EU 28 (simple average)	100.0	103.4	95.2	94.7	94.2	92.8	92.2	93.6	96.8	101.6	108.0	114.9
EURO AREA 19 (simple average)	100.0	102.8	94.3	94.6	94.7	93.8	93.4	94.2	96.3	100.3	106.2	112.7
AUSTRALIA	100.0	103.9	108.2	120.8	118.2	117.8	125.6	137.0	149.3	157.6	172.6	163.7
BRAZIL	100.0	123.7	155.9	192.4	223.7	246.2	267.7	281.1	276.6	269.0	267.2	272.4
ICELAND	100.0	106.2	95.9	93.0	97.3	104.1	110.1	130.5	141.2	155.1	186.1	201.4
JAPAN	n/a	100.0	94.6	95.6	95.1	94.0	95.6	95.2	95.7	96.7	97.3	97.9
NORWAY	100.0	92.0	104.1	111.5	120.6	129.8	128.9	140.0	146.4	164.7	162.9	167.4
RUSSIA	100.0	117.4	112.2	110.3	118.1	133.3	143.0	151.4	152.0	147.9	146.5	150.8
SINGAPORE	100.0	112.3	91.0	120.9	132.3	135.4	139.7	135.7	130.5	126.4	125.0	134.7
SOUTH KOREA	100.0	95.9	105.1	106.8	113.7	110.8	115.7	121.6	129.6	133.8	133.8	135.6
TURKEY	n/a	n/a	n/a	100.0	106.5	117.2	132.1	152.0	175.6	197.0	214.8	224.5
USA	100.0	92.0	86.6	84.0	80.5	82.9	88.9	93.6	98.7	104.7	111.8	118.2

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:
- Belgium
- Malta
- Turkey
- Brazil
- Norway

3) Notes:
- For Hypostat 2018 the base year has been postponed to 2007
- 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.

19. Nominal House Price Index – cities

2007 = 100

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
AUSTRIA												
Vienna	100.0	105.3	112.0	120.7	131.0	151.6	164.7	171.6	175.5	182.2	184.9	194.6
Rest of the country	100.0	99.4	102.2	107.8	110.4	122.4	125.6	129.5	136.2	148.4	155.7	169.0
BELGIUM												
Brussels	n/a	n/a	n/a	100.0	106.1	110.7	115.3	110.4	113.6	117.0	118.5	121.4
BULGARIA												
Sofia	100.0	128.5	95.8	86.5	81.0	80.1	79.4	81.7	87.9	97.6	108.2	115.4
Varna	100.0	133.1	100.5	90.7	85.0	81.8	81.1	83.3	90.6	97.5	107.8	114.5
Plovdiv	100.0	120.1	103.0	89.6	84.4	81.1	78.9	78.1	86.0	90.9	99.7	104.1
CROATIA												
Zagreb	100.0	116.3	114.6	100.1	100.3	101.8	90.2	97.2	95.8	84.8	98.3	103.6
Rest of the country	100.0	99.0	103.1	98.0	110.7	104.3	96.8	94.7	98.1	97.8	98.7	105.2
CYPRUS												
Nicosia	100.0	117.9	113.1	112.5	111.1	106.3	98.8	90.4	85.6	83.6	84.2	85.1
Limassol	100.0	122.5	114.9	117.4	112.0	107.8	102.6	94.4	90.6	89.8	91.7	94.6
Larnaca	100.0	113.8	111.7	109.7	104.7	96.2	87.7	79.5	75.8	74.9	74.5	75.6
CZECH REPUBLIC												
Prague	100.0	116.0	103.7	99.6	97.9	97.2	98.3	100.5	105.0	105	121.1	134.6
DENMARK												
Copenhagen	100.0	91.9	79.0	88.0	87.7	85.1	91.2	98.7	109.2	115.7	123.4	134.0
Aarhus	100.0	94.2	87.4	93.6	92.3	92.0	93.5	94.7	102.1	105.1	107.7	113.0
Odense	100.0	98.7	89.1	91.1	87.5	84.9	86.8	88.8	93.5	97.8	100.0	106.0
FINLAND												
Helsinki	100.0	100.4	101.0	113.0	117.4	120.3	125.0	125.7	126.1	129.6	134.0	154.8
Tampere	100.0	100.0	98.9	106.9	109.7	111.6	113.3	114.4	115.5	116.8	119.0	139.2
Turku	100.0	97.3	97.8	104.5	106.3	108.2	110.3	113.8	114.8	115.8	119.7	119.8
FRANCE												
Paris	100.0	102.1	98.2	115.8	132.2	130.8	129.0	126.0	126.5	131.9	143.2	151.4
Marseille	100.0	94.2	91.7	96.9	99.0	95.0	90.6	87.5	85.2	83.0	87.3	90.1
Lyon	100.0	93.1	94.0	105.7	112.4	117.0	116.8	115.1	116.4	120.4	131.8	144.1
GERMANY												
Aggregate 7 largest German cities	100.0	100.8	102.7	107.8	114.2	122.4	130.5	139.5	152.9	168.4	189.2	192.5
GREECE												
Athens	100.0	100.9	96.3	93.2	87.2	76.9	67.5	61.1	57.9	56.8	56.3	57.7
Thessaloniki	100.0	101.5	95.4	88.4	82.4	71.2	64.7	60.5	57.2	55.3	54.5	55.0

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
HUNGARY												
Budapest	100.0	103.2	98.8	93.3	92.3	88.6	80.7	86.7	110.4	136.6	157.4	191.3
Debrecen	100.0	95.1	90.6	86.5	85.2	88.5	78.4	83.3	99.2	116.9	130.8	156.8
Szeged	100.0	98.1	98.8	93.4	92.4	89.7	83.4	86.6	101.7	115.7	136.9	160.9
ITALY												
Rome	n/a	n/a	100.0	99.6	100.9	101.4	97.6	94.1	89.3	85.0	82.2	80.2
Milan	n/a	n/a	100.0	100.9	102.5	102.2	100.5	101.9	101.4	100.5	100.7	101.6
Naples	n/a	n/a	100.0	99.7	98.2	95.8	90.9	91.6	90.2	88.0	87.4	87.3
IRELAND												
Dublin	100.0	90.8	68.6	57.0	47.8	42.3	46.4	57.6	63.4	66.6	72.9	79.1
NETHERLANDS												
Amsterdam	100.0	108.0	101.8	101.4	101.1	95.3	90.3	94.9	104.2	118.3	134.9	152.1
The Hague	100.0	103.5	100.6	99.2	97.5	90.8	84.5	86.6	90.0	97.5	108.3	121.9
Rotterdam	100.0	102.7	100.9	100.2	99.5	94.5	89.3	90.7	94.7	101.4	114.6	131.3
POLAND												
Cracovia	100.0	100.1	94.1	88.8	87.3	80.1	79.6	81.8	81.9	83.6	83.8	92.9
Lodz	100.0	97.2	91.7	93.6	92.7	91.1	86.8	86.9	88.4	88.6	93.4	102.0
Warsaw	100.0	99.5	90.0	97.2	97.5	82.7	84.2	86.4	82.7	84.6	93.6	11.0
PORTUGAL												
Lisbon	n/a	n/a	100.0	100.7	97.7	91.6	90.4	94.1	95.7	98.9	109.1	120.3
ROMANIA												
Bucarest	n/a	n/a	100.0	84.2	67.3	68.7	62.3	62.2	64.3	69.2	74.9	78.2
SLOVAKIA												
Bratislava	100.0	118.4	105.0	103.6	100.7	99.7	99.6	98.9	101.6	107.4	113.8	118.4
Košice	100.0	140.0	113.5	115.9	120.1	119.6	114.3	113.3	116.5	114.8	125.0	122.8
Prešov	100.0	140.7	120.3	110.6	110.0	107.5	105.4	102.4	99.7	105.0	111.5	117.1
SLOVENIA												
Ljubliana	100.0	100.1	90.8	90.3	93.1	87.5	77.3	71.4	75.2	79.7	90.3	101.2
SPAIN												
Barcelona	100.0	97.1	88.8	84.3	77.2	69.3	67.4	67.1	69.1	72.3	76.3	85.3
Madrid	100.0	102.7	96.1	93.1	87.4	78.0	71.0	69.9	70.8	75.2	80.0	82.8
Valencia	100.0	104.2	97.8	91.2	84.9	74.9	70.2	68.5	68.8	70.6	70.0	72.4
SWEDEN												
Stockholm	100.0	102.3	102.7	112.6	114.2	113.8	118.4	130.7	149.0	162.1	171.3	162.1
Malmö	100.0	100.0	102.1	109.5	108.5	104.2	106.3	110.6	118.0	131.3	143.7	148.6
Göteborg	100.0	103.5	105.3	114.5	116.2	115.4	119.7	126.8	139.9	149.1	164.5	165.8
UNITED KINGDOM												
London	100.0	98.6	89.8	99.1	101.2	105.9	114.6	134.5	148.1	162.8	167.4	166.5

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
AUSTRALIA												
Canberra	100.0	103.4	108.6	121.4	120.4	119.7	120.5	123.2	128.1	135.0	131.5	133.9
Sydney	100.0	100.7	104.3	117.2	116.6	118.2	129.6	148.4	172.8	184.2	193.2	178.3
Melbourne	100.0	108.1	115.8	134.8	131.6	127.8	134.7	145.0	156.6	170.6	172.2	161.3
BRAZIL												
São Paulo	n/a	n/a	n/a	n/a	n/a	n/a	n/a	100.0	104.2	104.8	102.2	103.4
Rio de Janeiro	n/a	n/a	n/a	n/a	n/a	n/a	n/a	100.0	101.8	100.7	96.3	92.4
Belo Horizonte	n/a	n/a	n/a	n/a	n/a	n/a	n/a	100.0	99.3	96.5	94.0	92.2
ICELAND												
Reykjavik	100.0	106.3	95.5	91.9	95.7	104.0	112.0	123.5	134.8	148.9	178.7	189.4
JAPAN												
Tokyo	100.0	91.1	85.7	87.7	86.4	84.4	86.5	85.8	89.3	92.0	93.0	95.0
Osaka	100.0	95.2	89.2	89.7	89.1	87.3	87.4	86.2	87.0	87.0	89.0	90.0
Aichi	100.0	99.4	93.7	92.6	91.0	89.1	89.6	89.1	91.3	94.0	94.0	94.0
NORWAY												
Oslo	100.0	88.3	102.4	111.4	122.7	137.4	129.2	146.8	163.0	205.4	183.7	195.4
Bergen	100.0	88.0	102.0	110.6	119.7	129.2	130.1	144.6	146.3	147.7	147.7	150.5
Trondheim	100.0	92.7	104.5	114.1	127.4	139.8	142.5	151.9	156.1	163.3	167.1	165.8
RUSSIA												
Moscow	100.0	115.4	118.1	120.5	126.9	135.0	143.2	150.7	159.4	161.1	158.6	160.9
St. Petersburg	100.0	131.4	126.3	120.2	125.3	139.9	146.6	150.7	151.2	154.6	156.2	167.1
SOUTH KOREA												
Seul	100.0	89.8	108.9	105.4	102.2	94.7	97.8	102.1	111.4	120.9	135.2	158.5
Busan	100.0	104.1	115.9	136.6	159.0	154.8	160.3	166.7	182.5	202.3	202.1	191.8
TURKEY												
Ankara	n/a	n/a	n/a	100.0	102.6	112.0	122.4	133.7	146.1	159.6	174.4	262.0
Istanbul	n/a	n/a	n/a	100.0	104.5	118.5	134.3	152.3	172.6	195.6	221.8	191.2
Izmir	n/a	n/a	n/a	100.0	103.8	117.6	133.3	151.2	171.3	194.2	220.2	255.6
USA												
Washington - DC	100.0	95.2	92.6	95.3	98.3	106.1	118.6	131.3	139.0	147.3	153.7	167.4
New York	100.0	98.0	95.0	94.2	91.8	91.8	93.9	95.9	98.7	102.0	107.4	114.8
Los Angeles	100.0	83.0	76.3	75.7	71.8	73.4	83.0	89.9	96.7	94.1	102.7	107.3

***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:

- Austria
- Japan
- United States

3) Notes:

- For Hypostat 2018 the base year has been postponed to 2007.
- Belgium: Data refers to apartments in Brussels which constitute 70% of the market.
- 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.

20. Change in Nominal house price

Annual % change

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
AUSTRIA	4.3	1.1	3.8	6.3	4.2	12.4	4.6	3.5	4.2	7.3	5.3	6.9
BELGIUM	9.8	5.2	-0.4	5.1	4.2	2.8	2.1	1.2	2.2	4.0	3.0	4.0
BULGARIA	28.9	25.0	-20.4	-10.2	-5.5	-1.9	-2.2	1.4	2.8	7.0	8.7	5.5
CROATIA	25.9	7.5	-1.2	-8.1	7.2	-1.6	-9.9	0.9	1.6	-6.1	6.9	6.8
CYPRUS	25.3	18.6	-4.9	-0.8	-2.9	-5.6	-6.2	-8.5	-4.0	-1.8	0.4	1.6
CZECH REPUBLIC	19.4	11.8	-7.7	0.3	-0.6	-0.8	0.1	3.8	4.1	11.0	10.3	9.8
DENMARK	4.4	-4.2	-10.5	2.8	-3.6	-4.5	0.8	1.5	6.7	3.7	4.5	4.1
ESTONIA	20.8	-9.6	-37.2	5.7	8.5	7.3	10.7	13.7	6.9	4.8	5.4	6.2
FINLAND	5.5	0.6	-0.3	8.8	2.7	1.6	1.6	-0.6	-0.8	0.9	1.1	1.0
FRANCE	5.7	-3.8	-4.1	7.6	3.7	-2.1	-1.8	-2.5	-0.5	1.6	3.3	3.2
GERMANY	-0.2	3.3	-0.7	0.6	2.4	3.0	3.0	3.1	4.6	6.0	5.8	7.7
GREECE	6.0	1.7	-3.7	-4.6	-5.5	-11.7	-10.9	-7.5	-5.0	-2.5	-1.0	1.5
HUNGARY	4.8	1.0	-6.3	-5.2	-1.8	-3.0	-6.1	3.3	18.1	17.3	12.4	18.2
IRELAND	7.5	-7.0	-19.1	-13.4	-17.1	-13.5	1.3	16.5	11.6	7.3	10.9	10.2
ITALY	4.5	0.5	-0.1	0.3	0.8	-2.9	-5.7	-4.3	-2.6	-0.7	-1.9	-0.6
LATVIA	23.1	-17.8	-29.3	-2.4	5.8	6.1	8.2	-4.5	6.6	7.8	7.9	11.1
LITHUANIA	26.3	9.0	-29.9	-7.4	6.6	-0.2	1.2	6.4	3.7	5.4	8.9	7.3
LUXEMBOURG	7.0	3.3	-1.2	5.4	3.7	4.2	5.0	4.4	5.4	6.0	5.6	7.0
MALTA	21.1	11.1	-4.4	1.1	-1.4	4.0	-1.4	5.5	2.1	11.1	4.9	5.0
NETHERLANDS	4.2	3.0	-3.4	-2.2	-2.4	-6.5	-6.6	0.9	2.9	5.0	7.5	9.0
POLAND	29.5	-1.1	-6.8	-2.3	-0.6	-8.3	-1.0	1.8	1.1	2.5	4.7	11.2
PORTUGAL	1.4	3.8	-0.9	0.8	-4.9	-7.1	-1.9	4.2	3.1	7.1	13.2	13.1
ROMANIA	n/a	n/a	n/a	-7.5	-12.3	-5.1	-0.3	-2.1	2.9	6.0	6.0	5.5
SLOVAKIA	23.8	22.1	-11.1	-4.0	-3.1	-1.2	-0.9	-0.8	0.9	4.2	6.4	5.2
SLOVENIA	22.4	7.0	-9.5	0.1	2.7	-6.8	-5.2	-6.6	0.7	3.3	8.1	9.6
SPAIN	5.8	0.7	-7.4	-3.9	-5.6	-8.7	-5.8	-2.4	1.1	1.9	2.4	3.4
SWEDEN	10.8	3.0	1.7	7.3	0.8	-1.1	3.4	7.0	10.7	8.4	8.3	0.0
UNITED KINGDOM	9.9	-4.5	-8.9	5.7	-1.5	0.4	2.6	8.0	6.0	7.0	4.6	3.1
AUSTRALIA	10.5	3.9	4.0	11.7	-2.2	-0.3	6.6	9.1	9.0	5.1	6.0	6.4
BRAZIL	19.5	23.7	26.0	23.4	16.3	10.1	8.7	4.4	-1.6	4.4	5.2	6.1
ICELAND	16.9	6.2	-9.7	-3.0	4.6	7.0	5.8	18.5	8.2	9.8	20.0	8.2
JAPAN	n/a	n/a	-5.4	1.0	-0.5	-1.2	1.6	-0.3	0.5	5.5	9.5	-5.1
NORWAY	4.5	-8.0	13.1	7.1	8.2	7.6	-0.7	8.7	4.6	-2.3	-0.9	1.9
RUSSIA	32.6	17.4	-4.5	-1.6	7.0	12.9	7.3	5.9	0.4	9.8	20.0	8.2
SINGAPORE	23.6	12.3	-19.0	32.9	9.5	2.3	3.2	-2.9	-3.9	-3.1	-1.1	7.8
SOUTH KOREA	4.8	-4.1	9.6	1.6	6.4	-2.6	4.5	5.1	6.6	3.2	0.0	1.3
TURKEY	n/a	n/a	-5.4	1.0	-0.5	-1.2	1.6	-0.3	0.5	1.1	0.1	0.6
USA	0.0	-8.1	-5.9	-3.0	-4.1	3.0	7.2	5.2	5.5	12.4	-1.2	2.8

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

1) Time series breaks
- See Table 16

2) The series has been revised for at least two years in:
- See Table 16

3) Notes
- For further details on the methodologies, please see "Annex: Explanatory Note on data".
- n/a : figure not available
- See Table 16 for further notes.

21. Nominal House Price to Disposable Income of Households Ratio

2007 = 100

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
AUSTRIA	100.0	98.1	101.6	107.0	108.7	117.5	122.6	124.0	126.8	131.0	134.6	137.7
BELGIUM	100.0	99.6	97.6	101.9	104.1	105.0	106.0	106.1	107.4	109.1	109.4	107.9
BULGARIA	100.0	102.5	79.8	70.5	62.6	61.1	58.6	59.8	56.2	54.5	56.1	60.4
CROATIA	100.0	97.6	96.7	87.5	93.6	92.7	85.8	86.8	65.4	61.3	n/a	n/a
CYPRUS	100.0	106.6	104.0	99.6	94.7	91.0	89.7	90.1	86.4	81.2	79.1	76.6
CZECH REPUBLIC	100.0	93.7	89.1	84.7	81.7	82.1	84.8	90.2	89.2	95.0	96.3	92.0
DENMARK	100.0	93.6	81.9	79.6	74.2	69.4	68.7	68.9	70.2	69.5	70.3	70.1
ESTONIA	100.0	79.8	55.2	58.7	58.5	59.1	61.4	66.4	67.3	67.3	66.9	65.6
FINLAND	100.0	95.1	92.3	96.5	95.0	93.9	92.7	91.6	89.3	88.3	87.4	85.0
FRANCE	100.0	93.3	89.3	93.7	95.2	92.7	90.7	87.2	85.8	85.7	86.4	88.4
GERMANY	100.0	100.8	100.9	99.1	98.5	98.9	100.3	100.9	102.8	105.8	107.7	112.4
GREECE	100.0	96.4	91.1	94.3	97.5	94.1	91.8	85.7	84.5	84.3	83.5	81.7
HUNGARY	100.0	97.9	102.5	94.5	87.3	85.4	79.4	81.4	94.8	107.5	109.8	118.5
IRELAND	100.0	87.9	76.7	69.2	59.3	49.4	50.1	57.9	62.3	64.4	68.8	68.1
ITALY	100.0	98.7	101.0	101.4	99.6	99.4	93.4	88.8	85.3	83.6	80.7	78.7
LATVIA	100.0	70.3	61.0	64.7	68.2	66.7	69.5	63.9	64.5	66.3	67.4	69.0
LITHUANIA	100.0	91.5	69.6	63.9	64.7	62.5	59.8	62.5	62.9	62.9	66.2	65.6
LUXEMBOURG	100.0	98.2	94.2	95.7	96.9	95.4	96.9	97.6	100.0	103.0	104.1	102.4
NETHERLANDS	100.0	100.1	96.7	94.1	89.8	83.7	77.4	76.6	77.7	79.2	82.6	119.7
POLAND	100.0	84.5	89.2	76.9	74.8	66.7	65.1	64.3	63.4	64.2	63.1	70.6
PORTUGAL	100.0	99.8	99.2	97.3	96.0	92.5	91.0	95.0	94.7	97.8	107.5	117.4
ROMANIA	n/a	n/a	84.6	81.5	77.3	74.5	53.2	51.9	49.5	51.3	53.3	73.8
SLOVAKIA	100.0	103.1	87.1	82.4	78.4	75.4	73.7	71.3	69.1	70.0	72.3	71.4
SLOVENIA	100.0	98.7	88.9	88.1	88.9	84.9	80.3	73.9	73.4	72.7	74.8	88.8
SPAIN	100.0	95.5	86.9	84.7	79.3	74.9	71.2	68.7	68.0	67.9	68.2	89.7
SWEDEN	100.0	100.5	108.4	100.3	91.2	83.6	83.4	90.3	99.3	104.4	110.8	111.9
UNITED KINGDOM	100.0	107.2	106.5	107.1	104.9	93.8	97.3	96.9	87.3	103.8	113.6	148.0
JAPAN	n/a	100.0	81.9	73.6	70.5	64.3	82.9	88.9	84.2	75.4	79.3	81.1
NORWAY	100.0	88.3	100.3	94.3	94.3	92.2	90.3	99.8	104.0	115.1	113.8	114.8
UNITED STATES	100.0	92.0	86.6	84.0	80.5	82.9	88.9	93.6	98.7	104.7	111.8	n/a

1) Time series breaks
- See Table 18

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

3) Notes
- For Hypostat 2018 the base year has been postponed to 2007.
- For further details on the methodologies, please see "Annex: Explanatory Note on data".
- n/a: figure not available.
- See Tables 18 and 28 for further notes.

C – FUNDING OF THE MORTGAGE MARKET

22. Total Covered Bonds Outstanding

Backed by Mortgages, EUR million

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
AUSTRIA	4,125	4,973	5,317	7,645	17,174	17,010	18,854	22,450	27,345	30,894	31,915	42,001
BELGIUM	—	—	—	—	—	2,590	8,188	10,575	15,105	16,700	15,250	20,092
CYPRUS	—	—	—	—	5,200	4,550	1,000	1,000	650	650	650	650
CZECH REPUBLIC	8,213	8,091	8,179	8,234	8,546	9,056	10,355	11,106	11,656	13,060	15,522	13,757
DENMARK	244,696	255,140	319,434	332,505	345,529	359,560	359,646	369,978	377,903	389,200	393,447	396,246
FINLAND	4,500	5,750	7,625	10,125	18,839	26,684	29,783	32,031	33,974	33,822	34,625	37,257
FRANCE	63,555	119,092	134,757	156,239	189,395	208,297	202,822	188,925	188,669	177,813	185,820	194,227
GERMANY	206,489	217,367	225,100	219,947	223,676	215,999	199,900	189,936	197,726	207,338	215,199	233,372
GREECE	—	5,000	6,500	19,750	19,750	18,046	16,546	14,546	4,961	4,485	10,100	13,840
HUNGARY	5,987	7,105	7,375	6,323	5,175	4,958	4,016	3,272	3,022	2,189	2,641	3,762
IRELAND	13,575	23,075	29,725	29,037	30,007	25,099	20,827	18,473	16,916	17,062	16,416	20,788
ITALY	—	6,500	14,000	26,925	50,768	116,405	122,099	122,464	122,135	138,977	139,937	163,311
LATVIA	90	90	85	63	37	—	—	—	—	—	—	—
LUXEMBOURG	150	150	—	—	—	—	—	—	—	—	—	—
NETHERLANDS	15,093	20,534	27,664	40,180	51,970	59,822	61,015	58,850	61,101	67,604	72,880	94,797
POLAND	676	561	583	511	527	657	707	882	1,230	2,216	3,959	4,925
PORTUGAL	7,850	15,270	20,270	27,690	33,248	34,321	36,016	33,711	34,461	32,970	35,530	35,795
SLOVAKIA	2,738	3,576	3,608	3,442	3,768	3,835	4,067	3,939	4,198	4,197	5,118	4,858
SPAIN	266,959	315,055	336,750	343,401	369,208	406,736	334,572	282,568	252,383	232,456	216,498	213,253
SWEDEN	92,254	117,628	133,903	188,750	208,894	220,374	217,854	209,842	221,990	222,444	219,212	217,979
UNITED KINGDOM (regulated)	—	125,764	109,473	125,250	121,623	147,425	114,395	114,654	106,674	97,127	89,509	93,530
UNITED KINGDOM (non regulated)	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	64,001	65,855
BRAZIL	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	454
CANADA	2,000	6,574	7,525	18,003	38,610	49,121	50,459	64,836	85,759	100,830	93,095	107,496
ICELAND	478	492	685	807	808	893	803	927	1,205	1,902	2,506	3,123
JAPAN	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	1,000
NORWAY	6,371	21,924	53,582	70,401	91,852	107,242	105,202	102,704	107,694	113,051	113,359	119,398
SINGAPORE	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	919	1,963	5,576	8,466
SOUTH KOREA	n/a	n/a	773	1,120	2,171	2,407	2,536	1,349	1,954	2,490	2,619	2,771
SWITZERLAND	29,013	36,180	46,283	65,046	71,881	85,707	89,064	100,436	111,542	117,564	111,632	119,422
TURKEY	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	128	628	1,923	2,334
USA	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:

3) Notes

- For further details on the methodologies, please see "Annex: Explanatory Note on data".
- n/a : figure not available.
- Please note that the conversion to euros was performed by the ECBC.

23. Total Covered Bonds Issuances

Backed by Mortgages, EUR million

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
AUSTRIA	1,959	1,321	1,442	3,600	3,664	3,805	6,093	7,111	5,457	7181	3,165	11,007
BELGIUM	—	—	—	—	—	2,590	5,598	2,387	4,530	2345	1,050	5,842
CYPRUS	—	—	—	—	5,200	—	—	—	—	—	—	—
CZECH REPUBLIC	3,501	938	738	723	770	1,309	1,791	2,188	2,729	1693	4,074	2,573
DENMARK	70,955	103,230	125,484	148,475	145,147	185,845	149,989	154,310	163,050	130,329	123,205	113,441
FINLAND	1,500	1,250	2,125	5,250	9,964	9,368	3,771	6,469	7,425	4,679	5,550	5,650
FRANCE	33,511	64,009	37,285	51,525	88,776	53,310	21,386	17,558	33,903	19,482	28,347	27,108
GERMANY	26,834	57,345	56,852	42,216	40,911	38,540	33,583	29,145	40,369	35,070	36,841	43,142
GREECE	—	5,000	1,500	17,250	5,000	—	—	750	—	3,675	7,375	6,650
HUNGARY	331	3,331	3,209	542	2,264	1,140	559	91	888	625	1,166	2,004
IRELAND	1,675	9,506	14,801	6,000	9,290	5,500	3,235	2,535	5,225	3,542	3,250	5,575
ITALY	—	6,500	7,500	12,925	29,261	70,768	24,520	39,475	27,650	41,780	19,180	45,200
LATVIA	19	25	—	—	—	—	—	—	—	—	—	—
LUXEMBOURG	—	—	—	—	—	—	—	—	—	—	—	—
NETHERLANDS	7,648	5,355	7,725	13,660	14,143	10,738	4,478	3,910	7,908	9,908	11,925	28,714
POLAND	206	197	88	138	269	228	116	269	416	1,099	2,048	1,244
PORTUGAL	5,850	7,420	6,000	11,570	8,450	4,850	4,500	3,825	8,675	5,950	8,200	2,350
SLOVAKIA	803	1,414	707	1,179	867	785	841	654	1,159	751	1,316	800
SPAIN	51,801	54,187	43,580	51,916	72,077	98,846	22,919	23,038	31,375	31,393	30,000	19,935
SWEDEN	36,638	43,488	53,106	79,910	69,800	48,936	51,633	48,424	60,729	52,187	48,525	54,199
UNITED KINGDOM (regulated)	—	10,145	8,254	25,000	36,983	37,109	1,480	12,529	15,015	9,599	11,563	14,916
UNITED KINGDOM (non regulated)	31,673	110,761	22,177	900	—	—	—	—	—	—	—	—
AUSTRALIA	—	—	—	—	2,478	33,484	15,868	13,253	10,004	11,382	7,351	11,075
BRAZIL	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	454
CANADA	2,000	4,574	951	12,648	19,977	12,937	9,354	19,275	29,287	28,148	12,441	24,384
ICELAND	—	321	—	—	25	113	51	91	414	560	850	755
JAPAN	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	1,000
NORWAY	6,458	15,660	30,105	21,062	28,135	22,946	18,339	14,474	17,750	23,058	21,256	24,331
SINGAPORE	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	919	1,014	3,753	3,762
SOUTH KOREA	—	—	773	347	1,051	178	466	—	919	949	417	587
SWITZERLAND	4,559	5,316	12,414	14,834	15,379	19,723	13,583	19,193	15,840	16,106	12,922	13,725
TURKEY	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	128	500	1334	766
USA	8,859	—	1,051	—	—	—	—	—	—	—	—	—

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• Please note that the conversion to euros was performed by the ECBC.

24. Total Covered Bonds Outstanding

As % of GDP, backed by Mortgages

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
AUSTRIA	1.5	1.7	1.8	2.6	5.5	5.3	5.8	6.7	7.9	8.7	8.6	10.9
BELGIUM	0.0	0.0	0.0	0.0	0.0	0.7	2.1	2.6	3.7	3.9	3.5	4.5
CYPRUS	0.0	0.0	0.0	0.0	26.4	23.3	5.5	5.7	3.7	3.5	3.3	3.1
CZECH REPUBLIC	5.9	5.0	5.5	5.3	5.2	5.6	6.6	7.1	6.9	7.4	8.1	6.7
DENMARK	104.8	105.6	138.1	136.7	139.4	141.2	139.0	139.2	138.4	138.0	134.4	133.1
FINLAND	2.4	3.0	4.2	5.4	9.6	13.4	14.6	15.6	16.2	15.7	15.5	16.0
FRANCE	3.3	6.0	7.0	7.8	9.2	10.0	9.6	8.8	8.6	8.0	8.1	8.3
GERMANY	8.2	8.5	9.1	8.5	8.3	7.8	7.1	6.5	6.5	6.6	6.6	6.9
GREECE	0.0	2.1	2.7	8.7	9.5	9.4	9.2	8.1	2.8	2.5	5.6	7.5
HUNGARY	5.9	6.6	7.8	6.4	5.1	5.0	3.9	3.1	2.7	1.9	2.1	2.9
IRELAND	6.9	12.3	17.5	17.3	17.5	14.3	11.6	9.5	6.4	6.2	5.6	6.5
ITALY	0.0	0.4	0.9	1.7	3.1	7.2	7.6	7.6	7.4	8.2	8.1	9.3
LATVIA	0.4	0.4	0.5	0.4	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LUXEMBOURG	0.4	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NETHERLANDS	2.4	3.2	4.4	6.3	8.0	9.2	9.2	8.8	8.9	9.5	9.9	12.3
POLAND	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.3	0.5	0.8	1.0
PORTUGAL	4.5	8.5	11.6	15.4	18.9	20.4	21.2	19.5	19.2	17.7	18.3	17.8
SLOVAKIA	4.9	5.4	5.6	5.1	5.3	5.3	5.5	5.2	5.3	5.2	6.0	5.4
SPAIN	24.7	28.2	31.2	31.8	34.5	39.1	32.6	27.2	23.3	20.8	18.6	17.6
SWEDEN	25.9	33.4	43.2	51.1	51.6	52.1	49.9	48.4	49.4	48.0	46.1	46.7
UNITED KINGDOM (regulated)	0.0	6.3	6.3	6.8	6.4	7.1	5.5	5.0	4.1	4.0	3.8	3.9
UNITED KINGDOM (non regulated)	3.8	3.9	5.3	4.2	3.3	1.8	0.9	0.7	0.3	0.0	0.0	0.0
AUSTRALIA	0.0	0.0	0.0	0.0	0.2	3.1	4.6	5.4	5.6	6.2	5.8	5.3
BRAZIL	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.0
CANADA	0.2	0.6	0.8	1.5	2.8	3.6	3.8	4.4	6.0	7.0	6.8	7.2
ICELAND	3.1	4.5	7.3	7.8	7.4	7.8	6.7	6.9	7.7	10.2	11.5	14.3
JAPAN	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.0
NORWAY	2.2	6.9	19.2	21.7	25.6	27.0	26.7	27.3	30.9	33.7	32.0	32.4
SINGAPORE	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.3	0.7	1.9	2.7
SOUTH KOREA	n/a	n/a	0.1	0.1	0.3	0.3	0.3	0.1	0.2	0.2	0.2	0.2
SWITZERLAND	8.3	9.6	11.9	14.7	14.3	16.5	17.2	18.8	18.2	19.4	18.6	20.0
TURKEY	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.1	0.3	0.3
USA	0.1	0.1	0.1	0.1	0.1	0.0	0.0	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
- — : no active covered bond market
- For a detailed defintion of covered bonds, please see the glossary.
- Please note that the conversion to euros was performed by the ECBC.
- See Tables 22 and 27 for further notes.

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

EUR million

	2011	2012	2013	2014	2015	2016	2017	2018
AUSTRIA	2,015	1,869	1,815	1,702	1,576	1,438	1,292	1,142
BELGIUM	70,998	71,237	63,318	55,813	47,729	44,817	45,070	38,575
FINLAND	3,677	0	0	0	0	0	0	0
FRANCE	19,325	17,687	10,237	50,147	59,336	63,008	78,996	83,279
GERMANY	34,762	28,092	23,793	20,158	26,563	26,016	28,141	29,296
GREECE	6,311	6,422	4,274	3,658	2,600	1,315	1,208	1,093
IRELAND	59,508	51,183	37,626	36,159	31,532	30,282	27,895	26,961
ITALY	122,062	101,739	90,205	80,685	69,473	60,816	60,435	60,094
NETHERLANDS	287,326	269,518	250,142	239,768	209,590	192,470	164,846	167,214
PORTUGAL	37,800	29,149	27,621	26,051	22,736	19,237	17,369	16,755
SPAIN	171,914	127,685	118,040	122,570	118,604	126,112	126,644	112,336
SWEDEN	96	96	380	302	499	611	0	0
UNITED KINGDOM	409,738	301,776	254,807	217,984	160,668	146,197	142,546	152,819
RUSSIA	2,728	1,725	1,281	505	380	1,004	1,868	3,083

Source: *Association for Financial Markets in Europe (AFME)*

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

26. Total RMBS Issuances

EUR million

	2011	2012	2013	2014	2015	2016	2017	2018
BELGIUM	19,029	4,699	2,018	0	1,216	3,636	6,680	0
FRANCE	13,841	2,628	0	47,216	11,362	10,360	28,210	13,640
GERMANY	0	0	0	40	20,487	0	2,500	0
GREECE	1,750	1,343	0	0	0	0	0	0
IRELAND	0	890	1,021	2,072	206	4,377	4,210	13,568
ITALY	9,202	35,826	4,914	4,756	6,589	6,760	12,880	11,821
NETHERLANDS	82,945	47,196	39,462	14,231	19,359	32,380	14,850	30,415
PORTUGAL	1,340	1,107	1,373	0	1,192	0	0	2,266
SPAIN	14,094	3,302	7,322	17,321	9,566	20,337	14,450	683
SWEDEN	0	0	284	0	358	214	310	0
UNITED KINGDOM	80,782	40,075	8,399	25,201	30,687	41,630	33,130	39,272

Source: *Association for Financial Markets in Europe (AFME)*

1) Time series breaks
- All countries: 2007

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

D — MACROECONOMIC INDICATORS

27. GDP at Current Market Prices

EUR million

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
AUSTRIA	283,978	293,762	288,044	295,897	310,129	318,653	323,910	333,146	344,259	356,238	369,899	386,094
BELGIUM	344,713	354,066	348,781	365,101	379,106	387,500	392,340	400,087	411,103	424,605	439,175	450,506
BULGARIA	32,449	37,200	37,318	38,231	41,292	41,947	41,858	42,824	45,289	48,129	51,663	55,182
CROATIA	43,947	48,139	45,145	45,156	44,826	43,983	43,779	43,431	44,606	46,640	48,990	51,468
CYPRUS	17,591	19,006	18,674	19,300	19,731	19,490	18,141	17,610	17,746	18,490	19,649	20,731
CZECH REPUBLIC	138,303	161,313	148,682	156,718	164,041	161,434	157,742	156,660	168,473	176,370	191,722	206,823
DENMARK	233,383	241,614	231,278	243,165	247,880	254,578	258,743	265,757	273,018	282,090	292,806	297,634
ESTONIA	16,246	16,517	14,146	14,717	16,668	17,935	18,932	20,061	20,652	21,683	23,615	25,657
FINLAND	186,584	193,711	181,029	187,100	196,869	199,793	203,338	205,474	209,952	216,073	223,892	233,555
FRANCE	1,941,360	1,992,380	1,936,422	1,995,289	2,058,369	2,088,804	2,117,189	2,149,765	2,198,432	2,228,568	2,291,697	2,348,991
GERMANY	2,513,230	2,561,740	2,460,280	2,580,060	2,703,120	2,758,260	2,826,240	2,938,590	3,048,860	3,159,750	3,277,340	3,386,000
GREECE	232,695	241,990	237,534	226,031	207,029	191,204	180,654	178,657	177,258	176,488	180,218	184,714
HUNGARY	102,169	108,122	94,263	98,826	101,317	99,502	101,891	105,547	110,899	113,904	124,050	131,935
IRELAND	197,202	187,769	170,101	167,721	171,140	175,216	179,922	195,293	262,466	273,238	294,110	318,460
ITALY	1,609,551	1,632,151	1,572,878	1,604,515	1,637,463	1,613,265	1,604,599	1,621,827	1,652,085	1,689,824	1,727,382	1,756,982
LATVIA	22,679	24,355	18,749	17,789	20,202	22,058	22,829	23,618	24,320	25,038	27,033	29,524
LITHUANIA	29,041	32,696	26,935	28,028	31,275	33,349	34,960	36,568	37,434	38,849	42,191	45,114
LUXEMBOURG	37,179	38,129	36,977	40,178	43,165	44,112	46,500	49,825	51,579	53,303	55,299	58,869
MALTA	5,758	6,129	6,139	6,600	6,835	7,170	7,646	8,503	9,650	10,344	11,313	12,320
NETHERLANDS	619,170	647,198	624,842	639,187	650,359	652,966	660,463	671,560	690,008	708,337	737,048	773,373
POLAND	313,874	366,182	317,083	361,804	380,242	389,377	394,734	411,163	430,255	426,548	467,304	496,462
PORTUGAL	175,468	178,873	175,448	179,930	176,167	168,398	170,269	173,079	179,809	186,481	194,614	201,606
ROMANIA	128,618	146,591	125,214	125,409	131,925	133,147	143,802	150,458	160,298	170,394	187,517	202,884
SLOVAKIA	56,242	66,003	64,023	67,577	70,627	72,704	74,170	76,088	79,138	81,226	84,851	90,202
SLOVENIA	35,153	37,951	36,166	36,252	36,896	36,076	36,239	37,603	38,863	40,357	43,000	45,948
SPAIN	1,080,807	1,116,225	1,079,052	1,080,935	1,070,449	1,039,815	1,025,693	1,037,820	1,081,165	1,118,743	1,166,319	1,208,248
SWEDEN	356,434	352,742	310,008	369,478	405,440	423,808	436,218	433,140	449,195	463,148	475,224	467,012
UNITED KINGDOM	2,252,451	1,983,971	1,725,383	1,850,539	1,894,900	2,089,628	2,073,979	2,287,867	2,611,924	2,403,383	2,337,971	2,393,693
EURO AREA 19	9,404,645	9,640,650	9,296,219	9,552,205	9,805,599	9,846,767	9,944,034	10,175,174	10,534,687	10,827,690	11,205,344	11,573,949
EU 28	13,006,272	13,086,522	12,330,593	12,841,530	13,217,461	13,484,172	13,596,778	14,072,021	14,828,642	14,958,293	15,382,591	15,877,040
AUSTRALIA	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	1,103,495	1,250,830
BRAZIL	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	1,713,921	1,631,965
CANADA	995,161	1,113,122	951,793	1,207,561	1,382,750	1,382,421	1,335,667	1,483,799	1,426,380	1,448,350	1,373,190	1,492,862
ICELAND	15,566	10,949	9,426	10,332	10,889	11,459	12,064	13,390	15,680	18,646	21,709	21,918
JAPAN	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	4,062,484	4,341,397
NORWAY	293,128	317,230	278,558	324,043	358,734	397,086	393,966	376,648	348,408	335,748	354,287	368,389
RUSSIA	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	1,315,371	1,447,686
SINGAPORE	131,325	130,695	137,947	178,337	198,252	226,240	229,241	234,505	274,085	279,848	286,720	318,079
SOUTH KOREA	819,175	681,411	646,641	825,601	863,839	951,749	983,062	1,062,351	1,246,295	1,278,168	1,355,007	1,414,323
SWITZERLAND	350,696	378,248	390,207	441,086	504,021	519,716	518,380	534,924	612,658	605,754	601,396	597,314
TURKEY	459,041	549,201	447,492	577,666	643,440	662,409	689,287	769,432	789,367	813,726	709,666	669,432
USA	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	19,390,604	17,898,777

Sources : *Eurostat, World Bank*

1) Time series breaks:
- For all counties: 2003 and onwards

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

3) Notes:
- For further details on the methodologies, please see "Annex: Explanatory Note on data".
- n/a : figure not available
- Please note that the GDP at current prices has been taken in euros directly from Eurostat.
- Please note that for the non European countries GDP figures have been downloaded from the World Bank and the year-average USD/EUR exchange rate (Table 30) has been applied .

28. Gross Disposable Income of Households

EUR million

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
AUSTRIA	176,993	182,542	182,849	184,504	189,427	196,893	197,446	201,955	205,681	213,362	218,143	225,431
BELGIUM	202,895	214,355	217,919	219,432	223,822	228,163	230,799	233,361	235,380	242,424	250,361	257,927
BULGARIA	18,253	22,245	22,747	23,127	24,615	24,722	25,236	25,069	27,410	28,656	30,727	31,302
CROATIA	26,505	29,193	29,082	29,533	29,606	29,404	28,624	28,574	38,473	38,557	n/a	n/a
CYPRUS	11,890	13,225	12,900	13,356	13,652	13,414	12,765	11,626	11,633	12,189	12,787	13,007
CZECH REPUBLIC	71,428	85,248	82,793	87,288	89,960	88,816	86,096	84,069	88,429	92,718	99,237	109,497
DENMARK	105,498	107,929	110,434	116,829	120,795	123,467	125,613	127,320	133,106	139,542	144,336	150,502
ESTONIA	8,310	9,412	8,552	8,493	9,249	9,814	10,460	11,001	11,590	12,038	12,962	13,958
FINLAND	97,727	103,375	106,157	110,416	115,207	118,536	121,939	122,713	124,816	127,184	129,619	134,975
FRANCE	1,253,616	1,292,714	1,295,810	1,327,338	1,354,343	1,362,508	1,367,421	1,385,053	1,400,515	1,402,098	1,438,862	1,473,362
GERMANY	1,626,612	1,666,687	1,653,881	1,693,870	1,746,060	1,791,315	1,819,332	1,864,894	1,913,990	1,973,125	2,040,455	2,111,965
GREECE	161,288	170,167	173,297	159,701	145,918	133,568	122,151	121,095	116,675	114,235	115,537	118,287
HUNGARY	57,669	59,518	53,288	54,832	58,216	57,776	58,385	58,822	59,605	64,738	69,503	74,981
IRELAND	92,403	97,811	90,602	86,899	84,162	87,345	87,169	87,918	91,235	97,720	103,344	109,574
ITALY	1,105,076	1,125,256	1,099,071	1,097,977	1,126,308	1,095,744	1,100,092	1,106,394	1,122,473	1,136,912	1,156,234	1,177,701
LATVIA	13,441	15,733	12,812	11,783	11,818	12,822	13,318	13,848	14,612	15,442	16,207	17,651
LITHUANIA	17,495	20,846	19,200	19,366	20,383	21,072	22,277	22,693	23,345	24,578	25,842	27,589
LUXEMBOURG	14,512	15,268	15,744	16,338	16,723	17,703	18,297	18,957	19,498	20,065	21,663	22,834
NETHERLANDS	295,333	303,807	303,818	305,193	312,078	313,461	316,442	322,683	327,139	355,265	364,502	380,771
POLAND	193,424	226,510	199,854	226,640	231,436	237,996	241,551	248,931	255,208	258,061	276,995	290,357
PORTUGAL	121,784	126,704	126,182	129,750	124,984	120,492	120,269	120,066	124,154	128,114	132,340	137,225
ROMANIA	76,535	86,251	73,086	76,422	76,615	73,860	101,505	108,417	117,259	96,107	106,950	117,588
SLOVAKIA	32,715	38,728	40,788	41,409	42,176	43,342	43,950	45,068	46,902	47,972	49,986	52,970
SLOVENIA	21,017	22,785	22,885	23,106	23,528	22,940	23,000	23,341	23,681	24,660	25,787	27,364
SPAIN	650,731	686,071	698,867	688,396	694,231	670,551	664,377	671,813	686,629	700,113	711,182	733,794
SWEDEN	165,420	169,477	159,710	185,233	205,266	221,565	229,526	226,786	228,219	235,318	240,374	237,777
UNITED KINGDOM	1,482,878	1,320,843	1,211,261	1,274,008	1,281,002	1,438,321	1,422,703	1,542,558	1,814,808	1,633,276	1,558,777	1,612,275
EURO AREA 19	5,914,513	6,109,955	6,081,611	6,134,466	6,251,321	6,267,639	6,301,798	6,393,785	6,511,719	6,654,314	6,827,408	n/a
EU 28	8,116,193	8,228,274	8,037,182	8,224,706	8,386,548	8,577,901	8,643,709	8,856,299	9,290,791	9,292,897	9,391,601	n/a
ICELAND	7,959	5,627	4,434	4,221	4,645	5,088	5,323	5,995	n/a	n/a	n/a	n/a
JAPAN	2,034,660	2,142,002	2,473,467	2,782,398	2,892,664	3,132,761	2,470,666	2,294,365	2,433,859	2,747,423	2,627,501	2,586,155
NORWAY	120,297	125,414	124,848	142,225	153,901	169,302	171,764	168,830	169,384	172,096	172,156	175,469
TURKEY	#VALUE!	#VALUE!	317,720	402,592	414,031	465,628	498,142	492,414	536,097	538,746	519,061	n/a
USA	7,827,780	7,634,240	8,015,230	8,669,500	8,672,410	9,872,670	9,564,810	10,062,470	12,577,680	12,944,850	13,068,640	n/a

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

29. Population

18 years of age or over

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
AUSTRIA	6,689,506	6,730,188	6,772,979	6,809,974	6,851,056	6,899,032	6,953,033	7,015,329	7,093,573	7,187,684	7,247,528	7,288,698
BELGIUM	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	9,047,019	9,089,375
BULGARIA	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	5,907,405	5,857,288
CROATIA	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	3,422,613	3,388,668
CYPRUS	579,869	598,457	619,004	640,785	661,878	684,689	690,884	687,113	677,766	679,378	686,783	695,662
CZECH REPUBLIC	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	8,657,869	8,661,165
DENMARK	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	4,580,547	4,615,690
ESTONIA	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	1,065,855	1,067,016
FINLAND	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	4,431,392	4,446,869
FRANCE	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	52,175,394	52,277,238
GERMANY	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	69,051,391	69,254,205
GREECE	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	8,889,805	8,869,134
HUNGARY	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	8,083,674	8,063,258
IRELAND	3,286,982	3,374,379	3,415,449	3,425,549	3,430,232	3,434,216	3,444,289	3,463,560	3,495,568	3,539,203	3,590,330	3,634,536
ITALY	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	50,678,735	50,677,616
LATVIA	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	1,593,589	1,575,617
LITHUANIA	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	2,337,516	2,305,886
LUXEMBOURG	371,924	378,602	387,286	394,805	403,289	415,783	426,500	437,663	449,861	461,711	474,986	485,200
MALTA	321,101	325,754	330,123	334,759	337,240	340,819	346,271	353,065	362,652	372,709	381,876	396,538
NETHERLANDS	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	13,677,409	13,794,988
POLAND	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	31,126,994	31,102,681
PORTUGAL	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	8,529,440	8,535,618
ROMANIA	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	15,942,312	15,849,781
SLOVAKIA	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	4,432,721	4,436,138
SLOVENIA	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	1,701,642	1,700,354
SPAIN	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	38,093,066	38,170,911	38,306,476
SWEDEN	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	7,918,746	7,998,644
UNITED KINGDOM	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	51,898,789	52,257,210
EURO AREA 19	268,217,167	270,231,542	271,743,269	272,697,912	272,236,147	273,077,607	273,843,602	275,244,435	276,219,610	277,393,386	278,164,322	278,837,164
EU 28	400,908,992	403,541,919	405,895,887	407,271,568	407,400,128	408,710,564	409,927,302	411,723,468	413,161,899	414,674,359	415,703,271	416,631,549
AUSTRALIA	15,911,922	16,275,266	16,660,075	16,966,518	17,208,699	17,545,387	17,893,033	18,201,113	18,488,839	18,762,227	19,044,914	19,067,980
BRAZIL	130,139,078	132,582,921	135,000,068	137,398,556	139,772,511	142,117,374	144,460,737	146,814,536	149,186,801	151,418,202	153,662,507	151,047,979
CANADA	25,474,272	25,843,739	26,240,250	26,639,421	26,948,543	27,318,397	27,696,773	28,059,618	28,338,821	28,712,191	29,081,701	29,512,038
ICELAND	223,902	230,418	238,587	236,948	238,035	239,724	242,099	245,631	249,094	252,974	258,565	268,907
JAPAN	106,814,604	107,036,814	107,175,120	107,341,582	107,212,809	107,127,805	107,077,566	107,048,517	107,057,595	107,041,211	106,967,268	105,581,778
NORWAY	3,527,520	3,638,529	3,695,771	3,749,112	3,805,995	3,867,852	3,928,408	3,982,920	4,040,722	4,083,702	4,127,266	4,106,694
RUSSIA	115,680,174	116,199,402	116,585,375	116,753,200	116,881,564	116,859,270	116,716,952	116,490,214	116,183,089	115,635,142	115,153,538	113,499,590
TURKEY	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	54,906,614	56,759,899
SINGAPORE	3,543,606	3,757,671	3,891,912	3,982,471	4,091,579	4,220,060	4,313,782	4,394,042	4,469,714	4,547,811	4568615	4,514,394
SOUTH KOREA	38,012,280	38,511,624	38,956,094	39,443,455	40,041,977	40,569,154	41,064,064	41,614,612	42,093,670	42,505,405	42,875,316	9,812,339
SWITZERLAND	n/a	6,145,328	6,250,712	6,336,785	6,416,153	6,497,511	6,577,492	6,667,327	6,755,656	6,833,218	6,909,664	6,963,149
USA	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	252,063,800	253,227,294

Sources: *Eurostat, US Bureau of Census, World Bank*

1) Time series breaks

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

3) Notes

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

30. Bilateral Nominal Exchange Rate with the Euro

END OF THE YEAR	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
EU 28												
Bulgarian lev	1.956	1.956	1.956	1.956	1.956	1.956	1.956	1.9558	1.9558	1.9558	1.9558	1.956
Croatian kuna	7.331	7.356	7.300	7.383	7.537	7.558	7.627	7.658	7.638	7.560	7.44	7.4104
Czech koruna	26.63	26.88	26.47	25.06	25.79	25.15	27.43	27.735	27.023	27.02	25.535	25.724
Danish krone	7.458	7.451	7.442	7.454	7.434	7.461	7.459	7.4453	7.4626	7.434	7.4449	7.467
Hungarian forint	253.7	266.7	270.4	278.0	314.6	292.3	297.0	315.54	315.98	309.8	310.33	320.98
Polish zloty	3.594	4.154	4.105	3.975	4.458	4.074	4.154	4.2732	4.264	4.410	4.177	4.301
Romanian leu	3.608	4.023	4.236	4.262	4.323	4.445	4.471	4.4828	4.524	4.539	4.6585	4.653
Swedish krona	9.442	10.87	10.25	8.966	8.912	8.582	8.859	9.393	9.190	9.553	9.8438	10.25
UK pound sterling	0.733	0.953	0.888	0.861	0.835	0.816	0.834	0.7789	0.73395	0.856	0.88723	0.895
NON-EU												
Australian dollar	1.6757	2.0274	1.6008	1.3136	1.2723	1.2712	1.5423	1.4829	1.4897	1.4596	1.5346	1.622
Brazilian real	2.5914	3.2436	2.5113	2.2177	2.4159	2.7036	3.2576	3.2207	4.3117	3.4305	3.9729	4.444
Canadian dollar	1.4449	1.6998	1.5128	1.3322	1.3215	1.3137	1.4671	1.4063	1.5116	1.4188	1.5039	1.561
Icelandic krona*	91.64	169.33	179.76	153.78	158.98	168.89	158.29	154.31	141.38	119.15	124.209	133.206
Japanese yen	164.93	126.14	133.16	108.65	100.20	113.61	144.72	145.23	131.07	123.40	135.01	125.85
Norwegian krone	7.958	9.750	8.300	7.800	7.754	7.348	8.363	9.042	9.603	9.086	9.8403	9.948
Russian rouble	35.99	41.28	43.15	40.82	41.77	40.33	45.32	72.337	80.67	64.30	69.392	79.463
Singapore Dollar	2.06	2.08	2.02	1.81	1.75	1.61	1.66	1.6823	1.53	1.53	1.5588	1.5591
South Korean won	1377.94	1837.13	1666.97	1499.06	1498.69	1406.23	1450.93	1324.8	1280.78	1269.34	1279.61	1277.93
Swiss franc	1.6547	1.485	1.4836	1.2504	1.2154	1.2072	1.2276	1.2024	1.0835	1.0739	1.1702	1.1269
Turkish lira	1.717	2.149	2.155	2.069	2.443	2.355	2.961	2.832	3.177	3.707	4.5464	6.0588
US dollar	1.472	1.392	1.441	1.336	1.294	1.319	1.379	1.2141	1.089	1.054	1.1993	1.145

YEARLY AVERAGE	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
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	7.338	7.224	7.340	7.289	7.439	7.522	7.579	7.634	7.614	7.5333	7.464	7.4182
Czech koruna	27.766	24.946	26.435	25.284	24.590	25.149	25.980	27.536	27.279	27.034	26.326	25.647
Danish krone	7.451	7.456	7.446	7.447	7.451	7.444	7.458	7.455	7.459	7.4452	7.445	7.4532
Hungarian forint	251.350	251.510	280.330	275.480	279.370	289.250	296.870	308.710	310.000	311.44	309.190	318.89
Polish zloty	3.784	3.512	4.328	3.995	4.121	4.185	4.198	4.184	4.184	4.3632	4.257	4.2615
Romanian leu	3.335	3.683	4.240	4.212	4.239	4.459	4.419	4.444	4.445	4.4904	4.569	4.654
Swedish krona	9.250	9.615	10.619	9.537	9.030	8.704	8.652	9.099	9.354	9.4689	9.635	10.258
UK pound sterling	0.684	0.796	0.891	0.858	0.868	0.811	0.849	0.806	0.726	0.81948	0.877	0.885
NON-EU												
Australian dollar	1.6348	1.7416	1.7727	1.4423	1.3484	1.2407	1.3777	1.4719	1.4777	1.4883	1.4732	1.580
Brazilian real	2.6633	2.6737	2.7674	2.3314	2.3265	2.5084	2.8687	3.1211	3.7004	3.8561	3.6054	4.309
Canadian dollar	1.468	1.559	1.585	1.365	1.376	1.284	1.368	1.466	1.4186	1.4659	1.4647	1.5294
Icelandic krona	87.690	127.480	172.730	161.950	161.490	160.930	162.200	154.850	144.390	131.010	120.540	127.89
Japanese yen	161.250	152.450	130.340	116.240	110.960	102.490	129.660	140.310	134.310	120.2	126.710	130.4
Norwegian krone	8.017	8.224	8.728	8.004	7.793	7.475	7.807	8.354	8.9496	9.2906	9.327	9.598
Russian rouble	35.018	36.421	44.138	40.263	40.885	39.926	42.337	50.952	68.072	74.1446	65.938	74.042
Singapore Dollar	2.064	2.076	2.024	1.806	1.749	1.606	1.662	1.682	1.5255	1.5275	1.559	1.593
South Korean won	1.272.990	1.606.090	1.772.900	1.531.82	1.541.23	1.447.69	1.453.91	1.398.14	1256.54	1284.18	1276.74	1299.07
Swiss franc	1.643	1.587	1.510	1.380	1.233	1.205	1.231	1.215	1.0679	1.0902	1.1117	1.155
Turkish lira	1.787	1.906	2.163	1.997	2.338	2.314	2.534	2.907	3.0255	3.3433	4.121	5.7077
US dollar	1.371	1.471	1.395	1.326	1.392	1.285	1.328	1.329	1.110	1.1069	1.130	1.181

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 amortisation 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 securitisation 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. AMOUNT OF GROSS LENDING WITH A VARIABLE INTEREST RATE (FIXATION PERIOD OF UP TO 1 YEAR), PERCENT

This series, based on a dataset already collected for the EMF Quarterly Review, aims at looking at the size of gross lending with a variable interest rate.

6. 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.

7. 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.

8. 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 27).

9. 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 28).

10. TOTAL OUTSTANDING RESIDENTIAL LOANS PER CAPITA - POPULATION OVER 18, EUR

Total Outstanding Residential Loans is provided by the European Mortgage Federation (Table 1). Data on population is provided by Eurostat and the US Bureau of Census, and concerns the population whose age is 18 years or more (Table 29).

B — THE HOUSING MARKET

110. OWNER OCCUPATION RATE, PERCENT

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

12. 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.

13. 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).

14. 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.

15. 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*.

16. 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.

17. NUMBER OF TRANSACTIONS

Total number of new or second hand dwellings purchased or transferred in the period, including those occupied for the first time.

The national methodologies used to calculate this index are the following:

EU28

Belgium: transactions on second hand houses only.
Croatia: number of new dwellings purchased.
Denmark: excludes self-build.
Finland: 2000-2007 are estimates of Federation of Finnish Financial Services (FFI), calculated by utilising the average housing completions of the years 2008-2014.
France: new apartments as principal and secondary residence or rental.
Ireland: estimate based on mortgage approvals until 2011.
Latvia: new or second hand real estate purchased or transferred, including those occupied for the first time.
Netherlands: includes commercial transactions.
Romania: includes commercial transactions.
Sweden: from year 2000, not only one-family homes are included in the transaction figures but also apartment transactions.

NON EU28

USA: number of existing home sales..

18. NOMINAL HOUSE PRICES INDICES, 2007=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 based on bank evaluation data. *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 fomento.*
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.*

19. NOMINAL HOUSE PRICE INDEX – CITIES (2007=100)

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 and refers to apartments in Brussels, which constitute 70% of the market.

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 average 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

Portugal: yearly average on the Banking sector's valuations monthly data, Statistics Portugal

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 collateralised 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*

20. CHANGE IN NOMINAL HOUSE PRICES, ANNUAL % CHANGE

The annual percentage change computed using the house price indices found in Table 17.

21. NOMINAL HOUSE PRICE TO DISPOSABLE INCOME OF HOUSEHOLDS RATIO, 2007=100

This indicator is a measure of housing affordability. The nominal house price to disposable income ratio is also used by the OECD to provide a measure of housing affordability. However, this index is partially biased since it does not integrate financing costs: mortgage interest rate, taxes, notary costs, etc.

C – FUNDING OF THE MORTGAGE MARKET

22. TOTAL COVERED BONDS OUTSTANDING, BACKED BY MORTGAGES, EUR MILLION

Covered bonds are a dual recourse debt instruments issued by credit institutions and secured by a cover pool of financial assets, typically composed of mortgage loans, public-sector debt or ship mortgage. Three different models of covered bonds co-exist in Europe:

- Direct/on-balance issuance (German model): the originator issues the covered bonds and the assets are ring-fenced on the balance sheet of the originator.
- Specialist issuer (French model): an originator establishes a credit institution subsidiary which issues the covered bonds and holds the collateral.
- Direct issuance with guarantee (UK model): the originator issues the covered bonds, which are guaranteed by a special purpose entity of the originator, which holds the cover pool assets.

25. TOTAL RESIDENTIAL MORTGAGE-BACKED SECURITIES (RMBS) OUTSTANDING, EUR MILLION

A RMBS is a derivative whose value is derived from home equity loans and residential mortgages. In line with the other mortgage-backed securities, the owner is entitled to a claim on the principal and interest payments on the residential loans underpinning the security.

D – MACROECONOMIC INDICATORS

27. GDP AT CURRENT MARKET PRICES, EUR MILLION

Within the approach of GDP at current prices, the fundamental principle is that output and intermediate consumption is valued at the prices current at the time the production takes place. This implies that goods withdrawn from inventories by producers must be valued at the prices prevailing at the times the goods are withdrawn, and consumption of fixed capital in the system is calculated on the basis of the estimated opportunity costs of using the assets at the time they are used, as distinct from the prices at which the assets were acquired.

28. GROSS DISPOSABLE INCOME OF HOUSEHOLDS, EUR MILLION

According to the "1993 SNA", Gross Disposable Income of Households is the sum of household final consumption expenditures and savings (minus the change in net equity of households in pension funds). It also corresponds to the sum of wages and salaries, mixed income, net property income, net current transfers and social benefits other than social transfers in kind, less taxes on income and wealth and social security contributions paid by employees, the self-employed and the unemployed.

The indicator for the household sector includes the disposable income of non-profit institutions serving households (NPISH).

29. 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

30. 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.

NOTES

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2019

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September 2019

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FUNDING THE REAL ECONOMY