EMF

FUNDING THE REAL ECONOMY

HYPOSTAT 2020

HYPOSTAT **2020** | A REVIEW OF EUROPE'S MORTGAGE AND HOUSING MARKETS

European Mortgage Federation
November 2020

DISCLAIMER

CONTACT DETAILS

EDITORS

Luca Bertalot
Secretary General
lbertalot@hypo.org
Tel: +32 2 285 40 35

Jennifer Johnson
Deputy Secretary General
jjohnson@hypo.org
Tel: +32 2 285 40 45

Daniele Westig
Economic Adviser
dwestig@hypo.org
Tel: +32 2 285 40 40

Sofia Garrido Pérez
Policy Adviser
sgarrido@hypo.org
Tel: +32 2 285 40 42

Richard Kemmish
External Consultant
richardkemmish@outlook.com

LIST OF CONTRIBUTORS TO DATA AND ANALYSIS

AUSTRIA
Wolfgang Amann
Institut für Immobilien, Bauen und Wohnen Gmbh
amann@iibw.at

Karin Wagner
Oesterreichische Nationalbank
karin.wagner@oenb.at

BELGIUM
Zoë Delhaye
Union Professionnelle du Crédit (Febelfin)
zoe.delhaye@febelfin.be

BULGARIA
Petar Ivanov
Tsvetkova Bebov Komarevski – TBK
petar.ivanov@tbk.bg

Kristina Dimitrova
Tsvetkova Bebov Komarevski – TBK
kristina.dimitrova@tbk.bg

CROATIA
Edin Karakaš
Žurić i Partneri, law firm, OD d.o.o.
edin.karakas@zuric-i-partneri.hr

CYPRUS
Ioannis Tirkides
Bank of Cyprus
ioannis.tirkides@bankofcyprus.com

CZECHIA
Martin Kotek
Komerční banka, a. s.
martin_kotek@kb.cz

DENMARK
Sandie Wrona
Finance Denmark
swr@fida.dk

ESTONIA
Kaire Husu
Luminor Group
kaire.husu@luminorgroup.com

FINLAND
Mariia Somerla
Finance Finland
mariia.somerla@finanssiala.fi

FRANCE
Patrick Stocker
Crédit Agricole
patrick.stocker@ca-fnca.fr

GERMANY
Thomas Hofer
Verband deutscher Pfandbriefbanken – vdp
hofer@pfandbrief.de

GREECE
Calliope Akantziliotou
Bank of Greece
cakantziliotou@bankofgreece.gr

HUNGARY
Gyula Nagy
Takarék Mortgage Bank Plc
nagy.gyulalaszlo@takarek.hu

IRELAND
Anthony O'Brien
Banking & Payments Federation Ireland
anthony.obrien@bpfi.ie

ITALY
Marco Marino
Italian Banking Association – ABI
marco.marino@abi.it

LATVIA
Jekaterina Petkevica
Bank of Latvia
jekaterina.petkevica@bank.lv

LITHUANIA
Jonas Grincius
AB Citadele Bankas
grinciusjr@hotmail.com

LUXEMBOURG
Benoît Cerfontaine
The Luxembourg Bankers' Association
cerfontaine@abbl.lu

MALTA
Karol Gabarretta
Malta Bankers' Association
info@maltabankers.org

NETHERLANDS
Nico de Vries
ING Bank
nico.de.vries@ing.com

Paul de Vries
Dutch Land Registry
paul.devries@kadaster.nl

POLAND
Agnieszka Nierodka
Polish Bank Association
agnieszka.nierodka@zbp.pl

PORTUGAL
Bráulio Silva
Caixa Económica Montepio Geral
braulio.silva@montepio.pt

Magda Ventura
Caixa Económica Montepio Geral
magda.ventura@montepio.pt

ROMANIA
Ştefan Dina
Romanian Association of Banks
stefan.dina@arb.ro

SLOVAKIA
Matej Bašták
Slovenská sporiteľňa
bastak.matej@slsp.sk

SLOVENIA
Daniele Westig
European Mortgage Federation – European Covered Bond Council
dwestig@hypo.org

SPAIN
Leyre Lopez
Spanish Mortgage Association – AHE
leyre.lopez@ahe.es

SWEDEN
Christian Nilsson
Swedish Bankers' Association
christian.nilsson@swedishbankers.se

ICELAND
Magnus Arni Skulason
Reykjavik Economics ehf
magnus@reconomics.is

Lúðvík Elíasson
Central Bank of Iceland
ludvik.eliasson@sedlabanki.is

NORWAY
Michael H. Cook
Finance Norway
mhc@finansnorge.no

UNITED KINGDOM
Joseph Thompson
Building Societies Association
joseph.thompson@bsa.org.uk

BRAZIL
Filipe F. Pontual
Brazilian Association of Real Estate Loans and Savings Companies -ABECIP
filipepontual@abecip.org.br

CANADA
Lily Shum
Canada Mortgage and Housing Corporation
lshum@cmhc-schl.gc.ca

JAPAN
Shoichiro Konishi
Japan Housing Finance Agency – JHF
konishi.9rh@jhf.go.jp

RUSSIA
Andrey Tumanov
DOM.RF Russia Housing and Urban Development Corporation
andrei.tumanov@domrf.ru

SINGAPORE
Colin YS Chen
DBS Bank Ltd
colinchen@dbs.com

TURKEY
Yener Coşkun
Capital Markets Board of Turkey
ycoskun@spk.gov.tr

CONTRIBUTORS TO HYPOSTAT ARTICLES

Christine Whitehead
London School of Economics
c.m.e.whitehead@lse.ac.uk

Max Riedel
Ca' Foscari University of Venice
max.riedel@web.de

Danae Kyriakopoulou
Official Monetary and Financial Institutions Forum – OMFIF
danae.kyriakopoulou@omfif.org

Luiz De Mello
Organisation for Economic Co-operation and Development – OECD
luiz.demello@oecd.org

Luca Bertalot
European Mortgage Federation – European Covered Bond Council
lbertalot@hypo.org

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

Between crisis and opportunities: building a better future for our next generation

By Luca Bertalot, EMF-ECBC Secretary General

As the COVID-19 pandemic has swept through Europe, it has filled us all with a deep awareness of and insight into the radical changes ahead of us. We all feel the winds of change blowing and we are preparing ourselves for a massive transformation of our society and with this also the economic and financial landscape. Never before in history have we seen a global pandemic which has simultaneously and dramatically impacted the supply and demand sides in all regions around the world, affecting the building blocks of our lives: how we work, how we study, how we interact with people, how we live. Underestimating the depth and the intensity of this change would be a mistake.

This crisis is highlighting and accelerating key drivers of change and dynamics which some have tried to overlook or hide. Today more than ever we see that in our society every change has an impact on the rest of the globe and every change in the rest of the globe has implications for our daily life: those who are hiding behind borders or walls must understand that no border or wall can shield from the magnitude of the wind of change. There are no walls that can shield from a pandemic, nor from new ideas, new economic models and financial crisis. Nothing can block the hope of looking for a better future, the promised land, which remains the only real driver of evolution for humankind. In fact, this is also a fundamental right to be guaranteed and a duty towards our future generations. Against this backdrop, for the majority there is a growing awareness that only global synergies and can preserve our civilisation and protect all of us from more dramatic scenarios.

The word crisis etymologically comes from the ancient Greek verb of “κρίνω” which means select, decide. In fact, in ancient times, “κρίσις” was the process after the wheat harvest of selecting the best seeds to be kept and used for planting, to prepare the fields for the next season. This selection allowed the community to survive, get through the winter and look forward to a better future with an abundant harvest.

This unprecedented crisis should help us to select the right seeds to allow our global community to plant the cultivation which will secure a fair and sustainable future.

The essence of this spirit is the basis for the action plan of the European Union called Next Generation EU. The COVID-19 has shaken Europe and the world to its core, testing healthcare and welfare systems, our societies and economies and our way of living and working together. To protect lives and livelihoods, repair the Single Market, as well as to build a lasting and prosperous recovery, the European Commission is proposing to harness the full potential of the EU budget.

The real long term objective is fighting climate change and the plan proposed is intended to turn the immense challenge we face into an opportunity, not only by supporting the recovery but also by investing in our future: the European Green Deal and digitalisation will boost jobs and growth, the resilience of our societies and the health of our environment.

Those are the seeds identified to prepare the future for our upcoming generation. The Green Deal should be seen as an essential pillar of the Recovery Plan, going hand in hand with efforts to foster social mobility and the capacity of the most vulnerable part of the society to improve their future prospects.

This cultural attitude is the fundamental of the welfare systems in Europe and the mortgage systems in the Old Continent are an integral way of providing a social lift in the different countries. For example, looking at benchmarks, Denmark is not only the largest mortgage market and, with on average EUR 55,000 per adult, one of the most mortgage intense economies in Europe but it is also the country where the young generation has the earliest access to housing and where a low-income Danish family can raise their wage and social status to the country’s average in two generations, whereas in other regions in the globe it can take up to nine generations. Moreover, in terms of sustainability, Danish buildings now use half as much energy as they did 40 years ago.

Between 1990 and 2015 Denmark’s carbon emission dropped 36% while its GDP more than doubled. This shows that economic and green can go hand in hand. In 1990 renewables supplied 6% of Denmark’s energy, now they supply 33%. Denmark is the most prepared country for the energy transition and to meet the goals of the Paris Agreement being by 2050 carbon neutral.

Our democracies are based on their capacity to guarantee social mobility, and capital markets and mortgage markets are, for their, part essential components of the balance mechanisms to guarantee fair and sustainable societies. So, their smooth functioning is not only economically significant but politically relevant.

If we select the right seeds, this crisis can pave the way for a new, green ‘renaissance’. This will open up new perspectives at global level, in much the same way as the Black Plague was the trigger for a deep revolution of the society, labour market, financial and technological landscape at that time, setting the preconditions for the socio-cultural revolution called the Renaissance.

As for the Renaissance, private stakeholders can play a significant role and act as catalysts for a change in mentality. Like pioneers, we need to develop constructive spirits, build bridges, undertake collaborative actions and show leadership in tackling key building blocks. All this will result in adapting financial mechanisms and best practices to the new reality.

The private sector can certainly contribute significantly by channelling financial resources to support social mobility and a transition economy towards low carbon standards. The challenge that we need to tackle is to convince the largest number of citizens to make the green Renaissance their hope for the future. We must be careful to highlight the green added value and not make the green wave an obstacle for their ambitions. From our perspective it would be very counterproductive socially and economically to implement binary policy solutions, i.e. stick and carrot policies, which could ultimately hit the most vulnerable part of our society making their access to credit more difficult. Capital cost is the real priority for banks, a fine tuning of the prudential framework with a gradual privileged treatment for energy efficient mortgages would be the most appropriate approach, based on the evidence produced by the H2020 EeDaPP project. This risk sensitive approach would allow banks to align their risk profiles without shocking their capital structures, and in this way facilitate the implementation of sustainable financial products and boost private sustainable investments towards the real economy.

With these considerations in mind, the EMF-ECBC is setting out new strategies and putting forward concrete sets of market actions to support Next Generation EU.

With EUR 7 trillion of mortgages outstanding, the mortgage industry a key driver for social mobility and economic growth. Moreover, the Covered Bond industry, with EUR 2.7 trillion of outstanding bonds is the CMU gateway for long term investors and for lender access to long term funding. Moreover, from a financial stability perspective, the asset class represents a unique solid macroprudential instrument which has also proven its value as a crisis management tool.

In the context of COVID-19 and against the backdrop of financial vulnerability for at least a quarter of European families, the EMF-ECBC took early action and created a European task force to coordinate and promote policy and market actions in order to support consumers in financial difficulty and facilitate access to credit for businesses. This immediate reaction during the lockdown period together with the introduction of measures such as moratoria across European markets prevented a worsening of the situation and relieved financial pressure on families. In parallel, the EMF-ECBC undertook efforts to increase market transparency by securing additional market disclosures through new COVID-19 and ESG sections in the Covered Bond Label's HTT.

In the context of the European Green Deal, the EMF-ECBC is reinforcing Industry capabilities to develop ESG funding and lending strategies.

For more than five years now, the EMF-ECBC has been leading on the Energy Efficient Mortgages Initiative (EEMI), which brings together the Horizon 2020 EU funded EeMAP, EeDaPP and EeMMIP projects. The EEMI has a threefold objective: First, to propose a private initiative promoting energy efficiency investments in buildings based on a common European definition of Energy Efficient Mortgages which helped to inform the work of the Technical Expert Group on the Taxonomy. Second, to create a standardised energy efficient mortgage (EEM) to facilitate the acquisition of energy efficient properties and the renovation of those not aligned with EE norms. Third, to evaluate the availability of EEM asset data across EU Member States and gather large scale datasets to investigate the link between building energy performance, market value, probability of default (PD) and loss-given-default (LGD). Indeed, the underlying assumption of the EEMI is that building energy efficiency reduces owners' payment disruption risk, increases property value, and, as a result, reduces credit risk for banks and financial institutions.

The end of August 2020 marked the conclusion of the Horizon 2020 Energy Efficient Data Protocol & Portal (EeDaPP) Project which has delivered, after 30 months of intense work, data collection, market analysis and consultations, very important results for both the Industry and policymakers:

1. The EeDaPP Master Template (& accompanying explanatory White Paper) (link to both), a protocol which provides a common Industry benchmark for the collection of data related to building energy performance and which will constitute the basis for the development of disclosure best practices in the Energy Efficient Mortgage Label;
2. A comprehensive analysis into the correlation between energy efficiency and credit risk (link). The econometric analysis demonstrates a negative and significant correlation between building energy performance and the probability of mortgage default, potentially paving the way for new policy considerations in relation to EEM.

The econometric evaluation provided in the analysis focuses on the specific case of Italy. According to the associated portfolio analysis, the percentage of more EEM has been increasing over the last decade, while less efficient properties are predominantly affected by default. Significantly and as indicated above, the econometric evaluations highlight a negative correlation between EE and the owners' PD, thus confirming that energy efficiency investments tend to improve owners'/borrowers' solvency. Additionally, the results indicate that the degree of energy efficiency also matters, i.e., more energy efficient buildings are associated with relatively lower risk of default. Once again, these findings highlight the role of energy efficiency in reducing the default probability of a borrower. All in all, this report shows that people with more energy efficient homes and lower energy bills, can better afford their mortgage payments, reducing financial risk for banks and investors.

The selection of the portfolio analysed with a data series of 10 years, was based on approximately 470,000 real estate valuations. After a data cleaning exercise of this real market dataset, the total number of mortgages analysed was 72,980.

These results are of great significance in relation to the current policy agenda given their relevance for key files including the EU Green Deal, the Renewed EU Action Plan on Sustainable Finance and the implementation of Basel III into EU legislation.

Indeed, the evidence produced by EeDaPP paves the way for a more risk sensitive approach in the regulatory treatment of EEM based on scientific confirmation that build energy performance has an impact on risk. Against this background, the EMF-ECBC is leading efforts to establish an EEM Label which together with the Covered Bond Label will not only facilitate further data collection to substantiate this correlation on an ongoing basis, but which will also secure quality and transparency for market stakeholders in the gathering, processing and disclosure of EEM & ESG data, stimulating market development.

Against this background, we are delighted to present Hypostat 2020, the EMF's annual statistical publication onEurope's 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 27 Member States of the and an additional twelve jurisdictions beyond the EU's borders. For the first time, Hypostat presents, besides the country chapters of the EU27 Member States chapters on Iceland and Norway.

These country chapters offer the most comprehensive and accurate source of data available on the respective markets and outline developments observed over the past year. Moreover, the country chapters have been complemented with a new section on green finance which provides insights into the most important initiatives developed at national level, confirming the relevance of this asset class in every single country.

Besides a general analysis of European mortgage and housing markets based on the pre-COVID-19 conditions in 2019, this year's Hypostat includes an overview on the Energy Efficient Mortgages Initiative as well as three external articles focusing on some key, relevant market developments:

- Considering deteriorating economic conditions of a significant share of the population due to COVID-19, this year's Hypostat presents an overview prepared by the London School of Economics and supported by the EMF Research & Data Committee of the policies implemented to provide affordable home ownership in the various EU jurisdictions. This article shows that policies are in place to varying degrees in Europe, although there is still no pure market product in place.
- Based on the information gathered in Hypostat, this year's edition also includes a study on the convergence of mortgage markets prepared by Ca' Foscari University, Venice, which suggests that smaller European mortgage markets are catching-up with the more mature ones, although both the relatively short time-series available and the market disruption which is expected due to COVID-19 do not provide conclusive statements at this stage. As more data becomes available, this research will be continued in the future.
- Finally, an article prepared by the OECD and OMFIF provides insight into the impact of COVID-19 on the real-estate sector. In particular, the article analyses the impact of the measures taken by governments to alleviate the effects of the outbreak, and considers measures that will need to be taken in the upcoming months and years to tackle the challenges that still lie ahead.

On behalf of the EMF Research & Data Committee and its Chairman, Paul de Vries, we would like to thank most sincerely all contributors for making the publication of Hypostat possible.

We trust you will find this publication interesting and useful.

MACROECONOMIC SITUATION

- In 2019 GDP in the euro area grew by 1.5%. This represents the lowest figure since 2014, but at the same time comes after the longest period of economic expansion since the introduction of the euro. This still positive evolution helped to improve the health of public finances, with the share of debt to GDP decreasing in most of the EU , whereas countries with an increasing Debt to GDP ratio in 2019 remained still below the 40% mark. For the first time since 2017, not all countries in the EU recorded both increasing GDP and decreasing unemployment in 2019.
- Inflation grew by only 1.2% mostly due to a reduction in the volatility of food and energy components. It is expected that the ECB will continue with its supporting programme regulating interest rates and purchasing assets in order to bring inflation closer to the 2% target.

HOUSING MARKET

- The House Price Index (HPI) in 2019 increased by 5.9%, further decelerating from the 6.3% registered in 2018. Despite differences among countries, 80% have already recovered their respective pre-crisis levels.
- Most countries experienced a trough in their HPIs between 2008 and 2019 with a majority of countries registering their lowest in 2013. Afterwards a general recovery emerged with heterogeneous dynamics in the different regions and countries marking their different position in the housing market cycle.
- Similar to the country data, house prices in the capital cities in aggregate terms also experienced a trough in 2013 before a subsequent period of recovery over the next seven years, during which they registered an increase of 8.6% more than that of the country index. This aggregate picture of course does not show the different realities ranging from Rome where house prices decreased by 10% more than the nearly 10% decrease in Italy as a whole, to Budapest where house prices rose by over 65% more than the already 120% increase experienced by Hungary. With house prices having grown significantly in aggregate terms in 2019, the affordability index – calculated as the ratio of house prices and disposable income – has seen a deterioration in 17 of the 27 EU countries with 15 of those now less affordable than their long term average over the last 13 years.
- In 2019 the European population spending more than 40% of its disposable income on housing was 9.3% and nearly everywhere homeowners with a mortgage are less affected than the general population by house cost overburden.
- Construction investment grew for the sixth consecutive year expanding by 3.2% and dwelling construction increased by 5.3% in 2019 from 5.1% the year before, which is still 1.3 pps below the peak reached in 2007.
- Building permits continued to increase in 2019 accounting for a 35% increase with respect to 2013, reaching 0.7% of the existing housing stock. Also in terms of transaction figures, 2019 saw an increase of nearly 1% with respect to 2018 and 38% with respect to 2013.

MORTGAGE MARKETS

- The latest available figures from 2018 suggest that in Europe 69.3% of the population were homeowners with 26.5% of the population being mortgage holders. However, the evolution of the share of mortgage holders is heterogeneous ranging from an increase in the share of mortgage holders of up to 10 pps in Slovakia to a contraction of over 6% in Sweden over the last seven years. In general, the more South-Easterly we move in Europe the fewer mortgage holders and the more homeowners there are.
- Average mortgage per adult indebtedness is around EUR 18,000 and of EUR 61,000 when only mortgage holders are considered. In the EU 27 the most mortgage intense country is Luxembourg with nearly EUR 72,000 of residential mortgage debt per adult.
- In the EU27 and the UK there are EUR 7.6 tn outstanding mortgages which account for 49% of the respective GDP (44% when the UK is not considered), marking a 4.8% y-o-y increase, the highest since 2008. Despite overall growth, some regions still experienced contractions in their mortgage markets, especially in Southern Europe.
- The EU mortgage market is dominated by a handful of countries, the UK, Germany, France, the Netherlands and Spain which represent nearly 75% of the outstanding mortgage market of the EU 27 and UK.
- The decreasing trend in interest rates resumed in 2019 when in aggregate terms the average interest rate for a mortgage was 2.33%, the lowest ever since the first ever edition of Hypostat.
- 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. For 2019 around 20% of all new mortgage lending was based on a variable interest rate, continuing the ongoing decreasing share observed since 2010. In absolute terms, however, origination with a variable interest rate grew for the first time since 2014, reaching EUR 215 bn in Europe.
- 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.

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 2020", focuses on developments till early 2020[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 2020	first quarter of 2020
bn	billion
bps	basis points
mn	million
pps	percentage points
q-o-q	quarter on quarter
td	thousand
tn	trillion
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 COVID-19 pandemic and real estate: Effects and policy challenges

By Danae Kyriakopoulou, OMFIF and Luiz de Mello, OECD

1. THE PANDEMIC AND ITS EFFECTS ON REAL ESTATE

A DIFFICULT MACROECONOMIC BACKDROP

The COVID-19 outbreak is having a devastating effect on economies and societies globally. Governments introduced containment measures at the onset of the pandemic to limit the spread of the virus, shutting down parts of the economy. Travel and hospitality, tourism, retailing, non-essential construction and other activities involving direct contact between customers and service providers account for 30-40% of GDP on average in OECD countries and have been severely affected (OECD, 2020a).

A deterioration of the public health situation during the Autumn has called for the reintroduction of confinement measures in many countries. The global economic outlook therefore remains uncertain and global GDP could remain well below its pre-crisis level at least until the end of next year (Figure 1). The associated contraction in activity and living standards far exceeds those of the last global financial and economic crisis.

WHAT HAVE GOVERNMENTS DONE?

Governments reacted swiftly to contain the adverse effects of the pandemic. Policy responses focused initially on strengthening the capacity of public health care systems, while supporting people and firms to cope with the economic shock brought about by crisis. Support packages have generally included enhancing unemployment insurance and/or job retention schemes, allowing for deferral of tax, loan and rent payments, and providing loan guarantees and wage subsidies (Box 1).

BOX 1 | GOVERNMENT RESPONSES TO THE COVID-19 CRISIS: KEY INTERVENTIONS

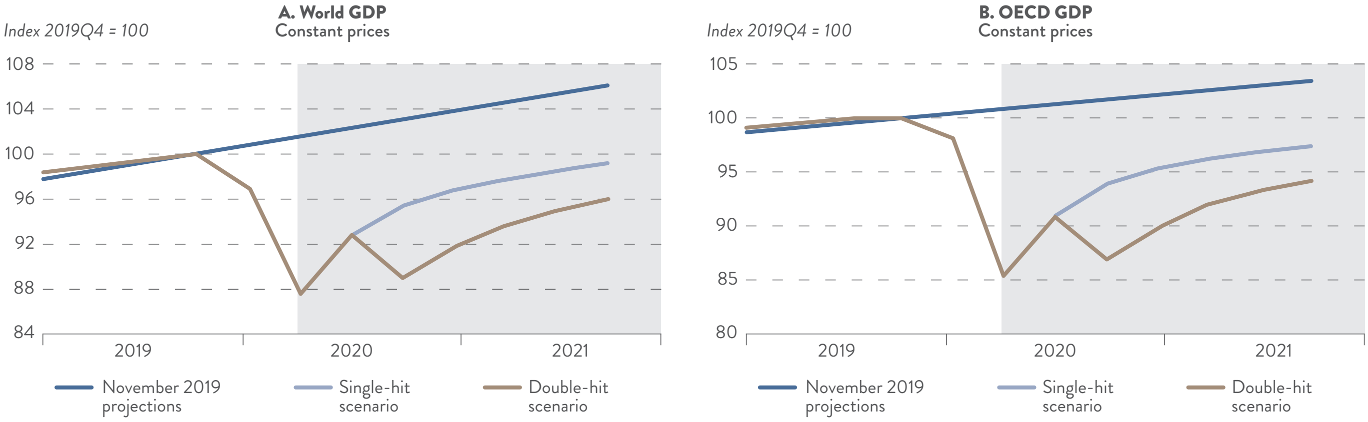
- Higher spending on public health care, subsidies, and unemployment and benefits insurance for the jobless and self-employed. Increased spending on active labour market policies, education and training.
- Temporary reductions in, and/or payment deferrals of taxes and/or social security contributions for individuals and firms, occasionally including the anticipation of government tax refunds.
- Off-budget support in the form of loans and loan guarantees, and equity injections in distressed firms.
- Extensions of social safety nets to seasonal workers in tourism and entertainment, one-off compensation to the jobless in those sectors, and special loans and/or loan guarantee programmes.
- In some cases, pandemic response measures were combined with other long-term goals, such as environmental transition, through the design of consumer bonus and car scrapping subsidies promoting the usage of electric vehicles.
- SMEs were targeted for specific support in many countries through grants, loans and/or loan guarantees.

Source: OECD (2020b).

WHAT HAVE CENTRAL BANKS DONE?

Complementing government action, the monetary authorities have played an important role in preventing this social and economic crisis from becoming a financial one too. Central banks have provided liquidity and ensured continuity of credit though interest rate cuts, asset purchases and targeted interventions in market segments under financial distress (Box 2).

FIGURE 1 | THE OUTLOOK FOR THE GLOBAL ECONOMY: OECD PROJECTIONS, 2020-21



NOTE: November 2019 projections are from the November 2019 OECD Economic Outlook.
Source: OECD (2020b).

BOX 2 | CENTRAL BANK RESPONSES TO THE COVID-19 CRISIS: KEY INTERVENTIONS

- Central banks behind the world's most used currencies took decisive measures early in the pandemic including expanding their asset purchases, lending facilities and open market operations. Their actions worked to calm markets and give breathing space to the financial sector until the real economy begins to recover.
- In their role as providers of liquidity for the world's reserve currencies they set up bilateral and other swap arrangements to help avoid disruptions in global capital flows.
- Emerging-market central banks have also begun experimenting with unconventional measures such as quantitative easing to support their domestic economies.

KEY ACTIONS BY THE FEDERAL RESERVE, EUROPEAN CENTRAL BANK, BANK OF ENGLAND AND BANK OF JAPAN DURING THE PANDEMIC

	FEDERAL RESERVE	EUROPEAN CENTRAL BANK	BANK OF ENGLAND	BANK OF JAPAN
Interest rates	Cut	No change	Cut	No change
Asset purchases	Increase in existing programme	Increase in existing programme. New Pandemic Emergency Purchase Programme	Increase in existing programme	Eased limits on existing programme
Lending facilities and open market operations	Existing facilities expanded and extended, new facilities introduced	Existing facilities expanded and extended, new facilities introduced	Existing facilities expanded and extended, new facilities introduced	Existing facilities expanded and extended, new facilities introduced
International liquidity	Expansion of swap lines and new repo facility	Expansions of swap lines and new repo facility		
Other		Relaxation of supervisory conditions	Loan to Treasury reopened	

Source: Based on OMFIF (2020a).

WHAT NEXT? MOVING FROM RESCUE TO RECOVERY

The social, economic and financial consequences of the public health crisis would have been much worse in the absence of these fiscal and monetary intervention. As economic activity begins to recover in earnest, policy will need to adjust course and move from support and rescue towards reallocation of resources to sustain long-term output and productivity growth. If support is withdrawn too quickly, the economic outlook may weaken further, leaving scarring economic and social effects. On the other hand, if support is maintained for too long, they may delay needed adjustment by posing obstacles or creating disincentives for workers and capital to move to sectors and activities with more promising economic prospects.

The recovery also presents an opportunity to put future growth on a more environmentally sustainable footing. For example, through their Network for Greening the Financial System, central banks and supervisors have also been vocal about ensuring the recovery from this crisis is sustainable and climate-resilient. Frank Elderson, Chair of the NGFS and Executive Board member at De Nederlandsche Bank, spoke of 'the twin challenges of a public health crisis and the necessity to build a sustainable economy', and urged policy-makers to 'do everything we can to support a green recovery' (NGFS, 2020). ECB President Christine Lagarde committed to examining 'greener' changes to all of the central bank's operations, including asset purchases.

2. THE REAL ESTATE SECTOR: CRISIS EFFECTS AND PRE-EXISTING VULNERABILITIES

THE CRISIS IS EXACERBATING LONG-LASTING CHALLENGES

The crisis is affecting the real estate sector in multiple ways. The economic slowdown is creating financial distress for renters and mortgage holders in both residential and commercial property. Landlords in turn are challenged by residential and commercial rent payment forbearance and business failures. The short-term rental segment is being particularly hard hit by the tourism slump. Banks and housing finance institutions holding a large share of housing loans in portfolios are exposed to an accumulation of non-performing loans. At the same time, construction activity is only beginning to recover from lockdowns and the slowdown in demand.

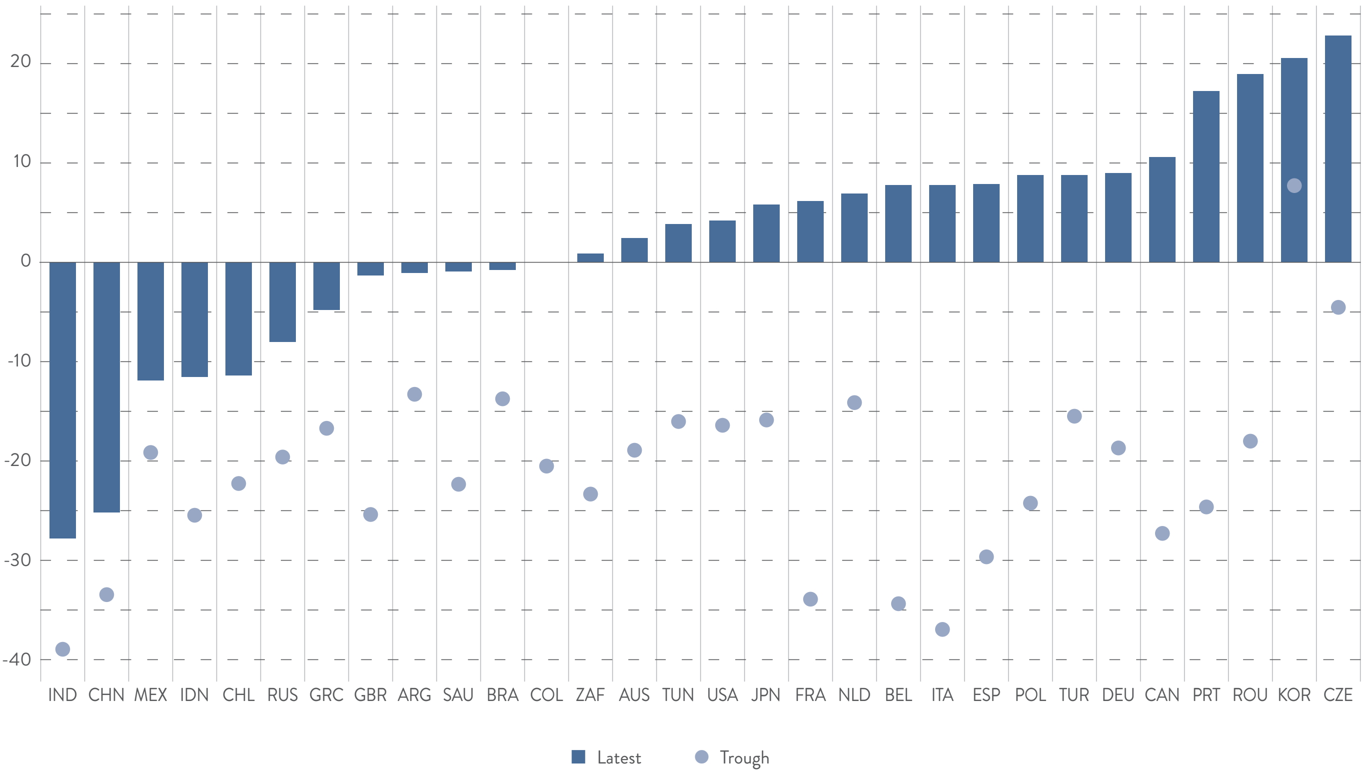
House prices are adjusting where activity remains depressed, but they are expected to hold up where the inventory of homes for sales is low and due to record low mortgage rates. High-frequency indicators show a sharp drop in activity and sentiment in the real estate sector followed by some signs of recovery as strict confinement was lifted earlier in the year (Figure 2; OECD, 2020c).

The pandemic is aggravating pre-existing housing affordability challenges. Housing-related expenditure accounts for about a third of household income on average in OECD countries, including rent and mortgage payments (Figure 3; Causa et al, 2019). Even in countries with strong safety nets, many households were already struggling to meet their housing-related commitments and now face the risk of material deprivation. Moreover, several vulnerable households, especially those on low incomes, live in overcrowded dwellings. This makes it difficult to enforce physical distancing, containment and confinement measures, in addition to remote schooling for children and teleworking for parents. Poor quality housing is another long-standing problem facing many vulnerable households. Poor energy efficiency, for example, leads to high utility costs, aggravating the economic backdrop for low-income households in addition to undermining their wellbeing.

WHAT HAVE GOVERNMENTS DONE?

Governments have supported renters and homeowners through loan and rent payment forbearance, eviction moratoria and direct income support for households and firms (Figure 4, Box 3; Kholodilin, 2020).

FIGURE 2 | BUILDERS' CONFIDENCE DURING THE CRISIS

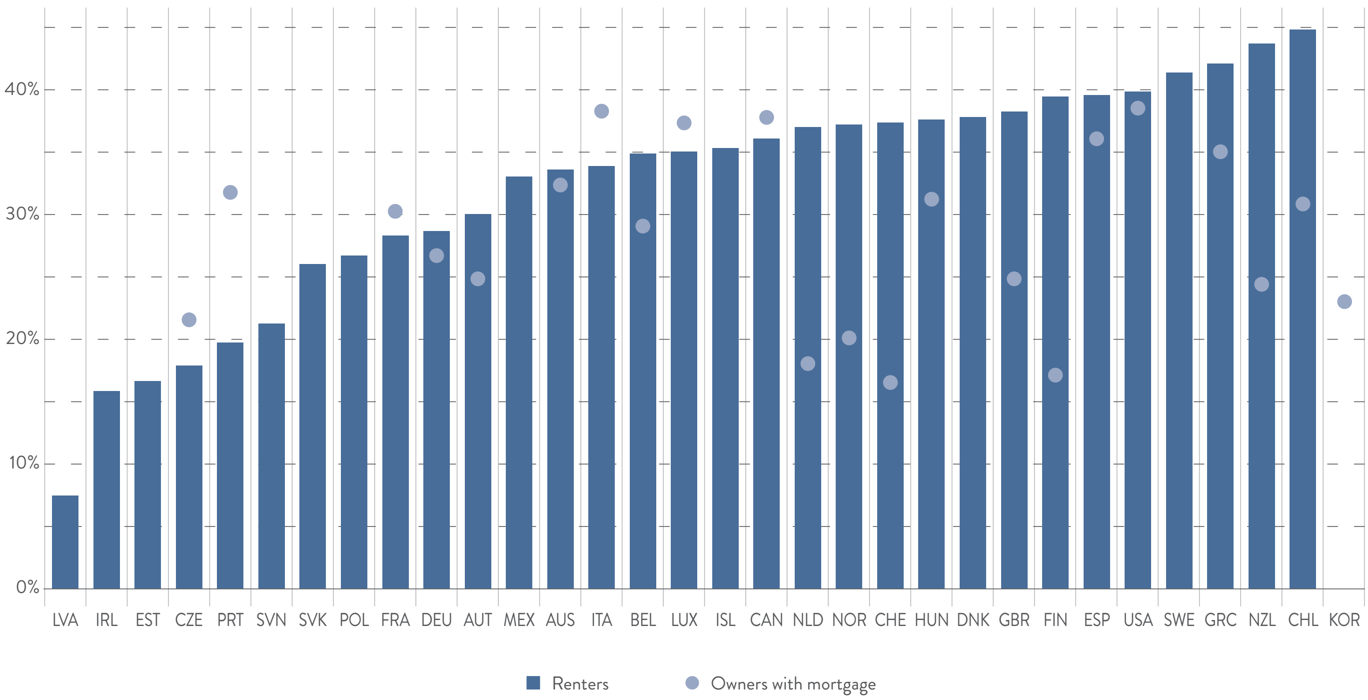


NOTE: "Latest" refers to the week ending on 31 May 2020. "Trough" denotes the low-point in confidence that typically occurred in March 2020.

Source: OECD (2020c), calculations based on Google Trends analysis.

FIGURE 3 | HOUSING-RELATED EXPENDITURE IN LOW-INCOME HOUSEHOLD BUDGETS

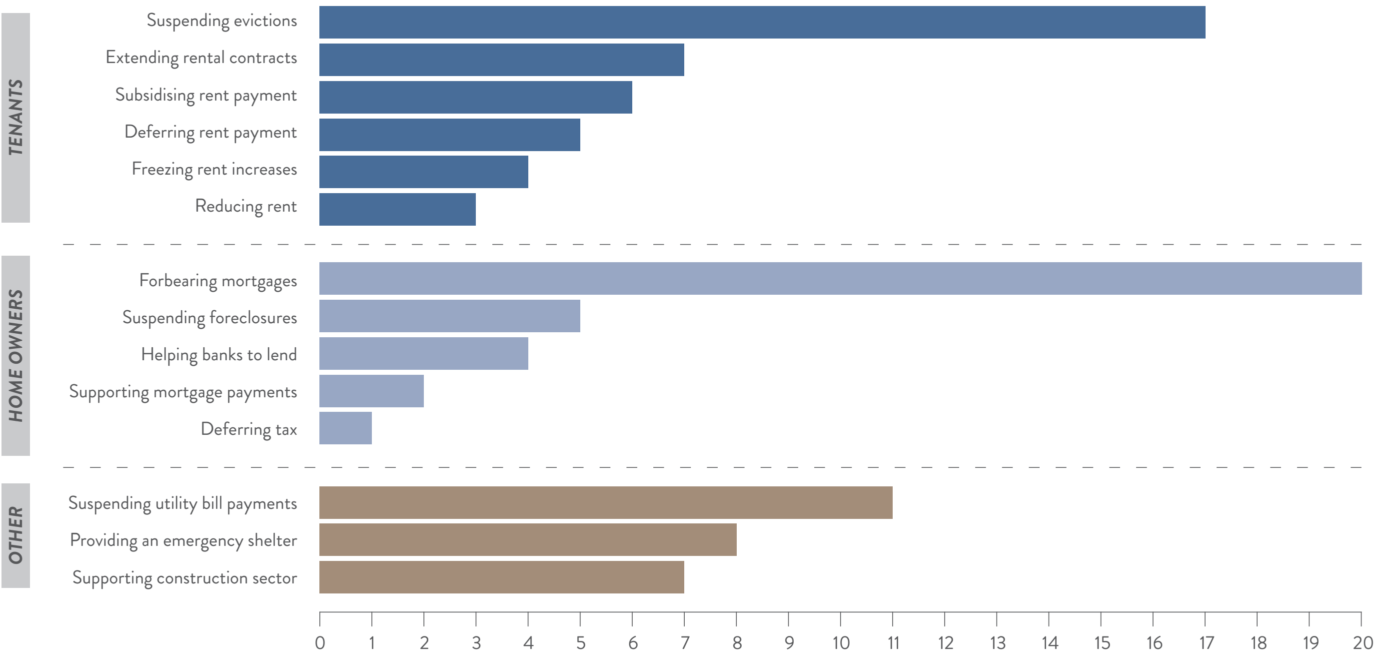
Rent and mortgage burden as a share of household disposable income in the bottom quintile of the income distribution



NOTE: Rent burden includes private market and subsidised rent. Mortgage burden includes principal repayment and interest payments.

Source: OECD (2020c) based on the OECD Affordable Housing Database.

FIGURE 4 | SUPPORT MEASURES IN THE HOUSING SECTOR



NOTE: The sample includes all 37 OECD and 9 non-OECD countries.
Source: OECD (2020c), DIW, Arena Housing Project.

BOX 3 | HOUSING SECTOR SUPPORT: KEY MEASURES

- **For renters:** Banning of evictions due to missed payments, enabling of deferral of rent payments, and temporary reduction/suspension of rent payments for some households. In some cases, rent increases have been banned temporarily, and financial support has been increased.
- **For mortgage holders:** Deferral of mortgage payments and prohibition of foreclosures due to missed payments. Renegotiation of mortgage contracts, often with payment deferrals on principal and occasionally on loan interests.
- **Other measures** of a more comprehensive nature have been taken in many countries, including the deferral of utility payments and/or continued service even in the event on non-payment. Reform of housing subsidy and job retention schemes favouring home owners unable to service their mortgage loans have also been introduced.

Source: Based on OECD (2020c).

MOVING FROM RESCUE TO RECOVERY INVOLVES POLICY TRADE-OFFS

When the recovery from the pandemic is firmly on course, short-term support will need to pave the way for more efficient real estate markets in the future. For example, rent payment forbearance and eviction moratoria have helped to contain the economic and social duress faced by renters during the crisis, but if maintained for an extended period they have the adverse side-effect of reducing return on investment and creating uncertainty for developers and lenders. Without investment in the upkeep and expansion of the housing stock, affordability problems may be aggravated, especially where supply is comparatively less responsive to changes in demand for new homes (Cavalleri and Özsöğüt, 2019).

Another policy trade-off between short-term rescue and long-term recovery is that tighter landlord-tenant restrictions tend to reduce residential mobility. This is because renters may find it difficult to move as job opportunities arise away from their place of residence (Orsetta and Pichelmann, 2020). The close association between residential and labour mobility puts housing policies at the core of the post-pandemic recovery debate, given that strong performance in the years to come will heavily depend on the reallocation of labour and capital towards sectors and activities with promising economic prospects.

Beyond the crisis, housing policies will need to respond to longer-term structural changes that may affect the demand for commercial and residential property over the longer term. They include more permanent changes in working relations and behaviour by owners, renters and investors that could change demand for residential real estate in a durable manner. For example, if teleworking becomes widespread, housing demand could shift towards less central urban areas, with implications for investment in both residential and commercial property, as well as urban development. These changes in demand patterns were already in motion. The pandemic-related containment and confinement measures has accelerated them.

3. BEYOND THE CRISIS: MAKING THE RECOVERY MORE SUSTAINABLE

THE LEGACY ON DEBT AND FINANCIAL STABILITY

To stay afloat during the crisis and finance the recovery, individuals, corporates and governments are taking on more debt. This is taking place in an environment of historically low interest rates, but also one of already high debt levels. Going into the crisis, several OECD economies had gross government debt higher than the level of their annual GDP. The pace of pandemic-related borrowing and the expected slowdown in GDP growth rates means these will rise even further, at least in the short term.

So far, stimulus measures have been designed to boost resources in the health care sector and shield businesses and households affected by lockdown measures. But over time, governments will need to start thinking about how to deploy fiscal stimulus in a different way: not just keeping today's economy in life support, but also helping it gain a more sustainable structure as it transitions. This will be crucial in ensuring that increased debt levels do not become unsustainable.

As economies, societies, businesses and individuals adjust to new habits and ways of working and living, some sectors will naturally recover faster than others. Some may suffer permanent hits, while new ones may also emerge. It is important that government stimulus programmes work towards, and not against, this transition, facilitating resource reallocation to promising sectors. They should also allocate some support to those more badly hit to ensure that the transition is just and inclusive. In some cases, short-term pain for long-term gain will be unavoidable to prevent situations of lingering allocation of public resources to zombie firms and sectors with no growth potential.

Real estate is one sector profoundly affected by the way the pandemic is shaping habits. More and more businesses and workers are questioning the value of 'the office' while adjusting to the practicalities of making home working feasible and efficient. Credit allocated to the sector will need to align with these trends to facilitate the transition to a different set of relationships among people, networks and buildings.

The pandemic has also acted as a stark reminder of the vulnerability of business practices and financial systems faced with a truly global crisis. With the climate crisis already in the not-so-distant horizon, real-estate related debt such as mortgages will also need to be a 'smart' enabler in the transition towards more energy-efficient, affordable and climate-resilient building infrastructure.

INCREASING FOCUS ON ENVIRONMENTAL SUSTAINABILITY

As policymakers have turned their immediate attention to fighting the pandemic, the environmental sustainability agenda has temporarily taken a back seat. For example, given pandemic-related pressures facing the banking industry, the Bank of England decided to postpone its climate stress tests scheduled from 2020 to 2021.

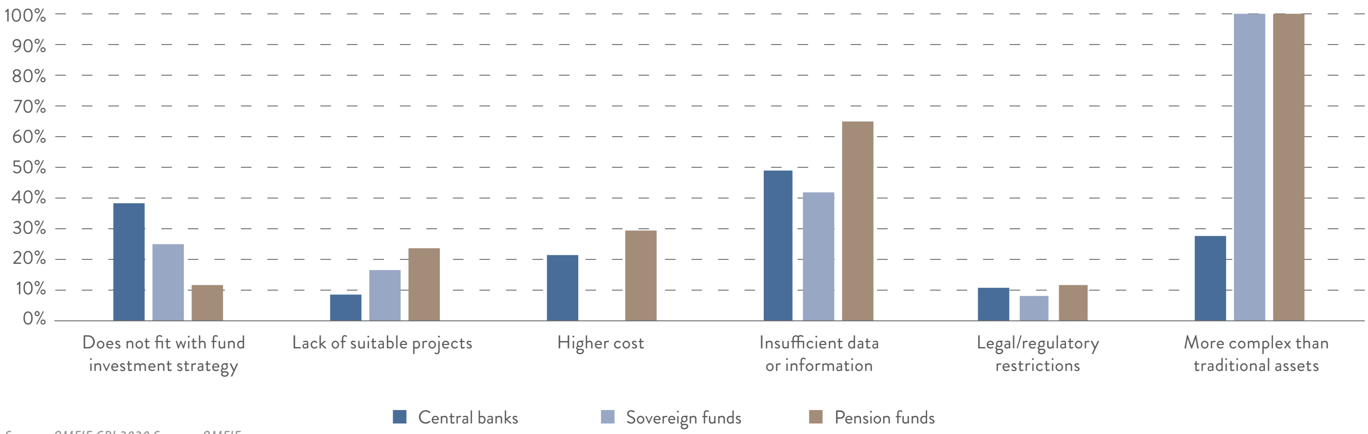
But when policy safely from the 'life support' phase to the 'designing the recovery' one, sustainability will emerge as a key guiding principle in designing next steps. 'Building back better' and 'green and smart recoveries' are becoming the slogans for the days after COVID-19. It is not just rhetoric. In Canada, companies have to disclose climate impacts consistent with the Financial Stability Board's Task Force on Climate-Related Financial Disclosures in order to qualify for stimulus funds. The European Commission's 'Next Generation EU' EUR 1 tn fund will also be guided by the EU's sustainable finance taxonomy. In the UK, the government introduced in July 2020 the Green Homes Grant. Starting in September 2020, the government will pay two-thirds of home improvements up to GBP 5,000 to help homeowners make their homes more energy efficient. It has calculated that households can save up to GBP 300 a year on energy bills following such improvements.

In designing conditionality in stimulus policies, governments will need to tread a fine balance between the need for immediate relief and the importance of ensuring it is sustainable. But while debates around timing may be difficult, the direction of travel should be clear. Sustainability is no longer a niche strategy for values-oriented investors and financial market participants, but a business case for protecting portfolios and activities against non-financial sources of risk. In a survey of sovereign funds and public pension funds globally, conducted by OMFIF and Bank of New York Mellon, superior risk-adjusted returns and the desire to minimise reputational risks were among the core motivations for these institutions to integrate ESG in their investment processes (Figure 5; OMFIF, 2020b).

These risks are particularly prominent in the real estate and infrastructure markets. The increased frequency of natural disasters and the gradual changes in climate and temperature can affect the values of these assets directly through damages to their structures, or indirectly through higher insurance costs or falling demand for accommodation in ski or sea resort areas suffering from changing temperatures. As governments commit to climate action, financial market players must also increasingly pay attention to 'transition risks': the potential costs involved in transitioning to a low-carbon economy and complying with climate-aligned government regulations. These may involve

FIGURE 5 | DATA AND COMPLEXITY KEY BARRIERS TO ESG INVESTMENT INTEGRATION

Responses to "What do you see as the barriers to ESG adoption/further integration in your asset management? Please select all that apply."



Source: OMFIF GPI 2020 Survey, OMFIF.

higher energy prices, the need to transform buildings into more sustainable and energy-efficient structures, and higher taxes for unsustainable assets where sustainable alternatives are available.

But while the motivations are clear and the policy momentum is high, the financial sector still faces challenges in making the transition a reality. Supply of sustainable assets, in the real estate sector and elsewhere, are often cited as a key blocker especially from large investor groups such as central bank reserves managers, sovereign funds and pension funds that cannot easily engage in small-scale private equity or direct investments. Another major obstacle is data: regulators, investors and companies are still in the process of aligning expectations about what constitutes relevant and material information to incorporate in models, and the landscape around data privacy, collection and usage issues remains fragmented across asset classes and jurisdictions. Initiatives such as the Energy Efficiency Mortgages Initiative, presented in this publication, can help pave the way towards more harmonisation and standardisation, sharing best practice across the banking industry for the mortgages sector, and facilitating much-needed dialogue between regulators and financial market practitioners.

REFERENCES

Causa, O., N. Woloszko and D. Leite (2019), "Housing, wealth accumulation and wealth distribution: Evidence and stylised facts", *OECD Economics Department Working Paper*, No. 1588, OECD, Paris.

Causa, O. and J. Pichelmann (2020), "Should I stay or should I go? Housing and residential mobility in OECD countries", *OECD Economics Department Working Paper*, forthcoming, OECD, Paris.

Cavalleri, M. and E. Özsöğüt (2019), "How responsive are housing markets in the OECD? National level estimates", *OECD Economics Department Working Papers*, No. 1589, OECD, Paris,

Kholodilin, K.A. (2020), "Housing Policies Worldwide during Coronavirus Crisis: Challenges and Solutions", *DIW Focus*, No.2, DIW, Berlin.

NGFS (2020), *Message from the Chair*, Frank Elderson

OECD (2020a), *Evaluating the initial impact of COVID-19 containment measures on economic activity*, OECD, Paris.

OECD (2020b), Economic Outlook, OECD, Paris.

OECD (2020c), *Housing policy amid COVID-19*, OECD, Paris.

OMFIF (2020a), *Central Bank Policy Tracker*, OMFIF, London.

OMFIF (2020b), *Global Public Investor 2020*, OMFIF, London

Are European Mortgage Markets Converging?

By Monica Billio and Max Riedel, Ca' Foscari University of Venice

- Mortgage market growth is correlated in Southern Europe, less so in the north
- Average mortgage interest rates converged across Europe until 2017, but are now less correlated
- Countries with less mortgage debt per person are catching up to the European average, particularly within the Euro zone
- Hints of housing affordability issues as mortgage market growth is higher in low-GDP economies and in times of house price increases, irrespective of household income

Over the past two decades, the European Union has gone through a process of identifying and assessing the obstacles to the cross-border provision of mortgage credit services. Its aim has been to integrate the mortgage market, promote common standards, and protect consumers across the EU. These efforts finally culminated in the European Mortgage Credit Directive (MCD), which entered into force on 21 March 2016. As a result, one might wonder whether there has been a recent convergence of the individual European mortgage markets towards a state of equilibrium or whether this is a general trend that is taking place over a longer period of time.

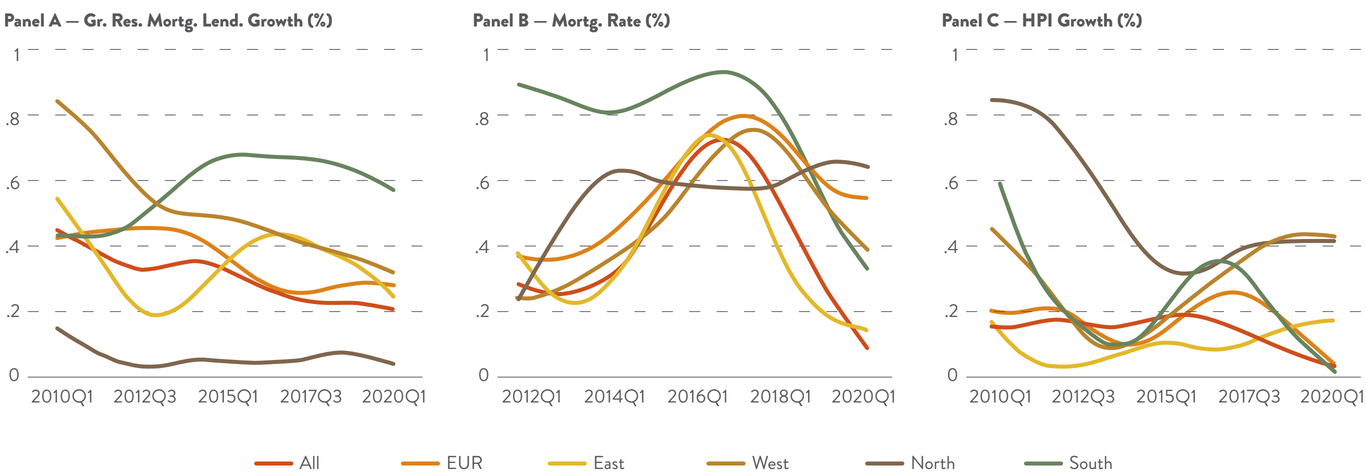
ARE MORTGAGE VARIABLES CONVERGING?

To explore this question, we first look at the correlation between essential mortgage variables within different groups of countries over time. The variables of interest are gross residential mortgage lending growth, mortgage rates, and house price growth. To account for regional difference, we differentiate between the following country groups: (i) Euro area countries, (ii) Nordic countries, (iii) CEE, (iv) Southern Europe, (v) Western Europe, and (vi) all countries combined.

Following Billio et al. (2017), we measure co-movement in the mortgage variables as pairwise absolute 3-year rolling correlation averaged across countries within each group. That is, the calculation involves a five-step procedure. In the first step, we restrict a mortgage variable's time series to an initial 3-year window (e.g., Q1 2007 to Q4 2009). Next, we calculate the Pearson correlation coefficient for all possible country pairs within the country group (e.g., there are six unique pairwise combinations of the four Eastern European countries in our sample). In the third step, we ensure that co-movement is captured regardless of the sign by taking the correlation coefficients' absolute values. In the fourth step, we average the absolute correlation coefficients across all country pairs and use the resulting value as a proxy for co-movement. This measure is then assigned to the last observation date of the sample window (i.e., Q4 2009). Finally, we move the 3-year window forward by one quarter (i.e., the new sample window becomes Q2 2007 to Q1 2010) and re-run the above steps iteratively until the entire sample period is exhausted.

Figure 1 presents the results. Panel A shows that lending growth rates are highly synchronised in Southern Europe (a higher value indicates a higher average correlation within the group). In stark contrast to this finding is the situation in Northern Europe, where countries tend to move independently of each other, as indicated by an average correlation below 0.2 over the sample period. Among the Euro area countries, growth was increasingly divergent until 2017 when it reversed. As mortgage rates generally declined over the last decade, it is unsurprising that they were increasingly correlated until 2017, as depicted by the hump-shape in Panel B. Since then, the persistent wide-spread decline in mortgage rates came to a halt as shallow levels were reached, which lead to a plateau effect, i.e., there were relatively small variations both upwards and downwards in the following years. This development is most pronounced for

FIGURE 1 | CHANGING CORRELATIONS IN MARKET VARIABLES OVER TIME



NOTE: The measure of co-movement is defined as the average of pairwise cross-country absolute correlations of quarterly gross residential mortgage lending growth (Panel A), mortgage rates (Panel B), and growth rates of house price indices (Panel C). The pairwise correlations have been computed over a three-year rolling window beginning in Q1 2007 (or slightly later, depending on data availability). Five different groupings are considered: ALL (16 countries: BE, CZ, DE, DK, ES, FI, FR, HU, IE, IT, NL, PL, PT, RO, SE, UK), EUR (nine Euro area countries within the ALL group), EAST (CZ, HU, PL, RO), WEST (BE, DE, FR, IE, NL, UK), NORTH (DK, FI, SE), and SOUTH (ES, IT, PT). The plotted mean rolling absolute correlations are smoothed using the Hodrick-Prescott filter and a smoothing parameter of 100. The latest observation is Q3 2019 in Panel A and Q1 2020 in Panels B and C.

Source of data: EMF-ECBC.

the aggregate value, which is represented by the red line. Only in the Nordic countries did mortgage rates continue to converge. Finally, Panel C points to a recent upward trend in house price co-movement within the Eastern, Western, and Northern European country subgroups, while the Southern countries are diverging. This development could be explained by the different stages of house growth cycles in individual countries. For instance, in Southern Europe, Italy has somewhat stagnant and even decreasing house prices while Spain and, in particular, Portugal have seen an upward trend in recent years.

The general takeaway from Figure 1 is that co-movement in regional mortgage market variables has been prevalent over the whole sample period, although it varies over time and region. Nevertheless, the recent increase in market growth and house price appreciations could be partly attributed to MCD.

ARE OTHER ECONOMIC VARIABLES CONVERGING?

Next, we investigate if there was a trend in convergence among other economic indicators, which are available at yearly frequency for a larger group of countries. For this purpose, we employ the beta-convergence analysis (see Barro and Sala-i-Martin, 1992, Paas et. Al, 2007) that is traditionally used in economic growth literature to study the income gap between rich and poor countries.

Beta-convergence is estimated using the following ordinary least squares (OLS) regression:

$$ln\left(\frac{y_{i,f}}{y_{i,b}}\right) = \alpha + \beta\, ln\,(y_{i,b}) + \varepsilon_i$$

where $ln()$ is the natural logarithm, $y_{i,b}$ is a macroeconomic variable in country i in base year b, $y_{i,f}$ is a macroeconomic variable in country i in final year f, α, β are parameters to be estimated and ε_i is the error term. Our variable of interest is the regression coefficient β. A negative and significant β-estimate indicates a variable convergence towards a steady state point, represented by the coefficient α. For instance, if the variable y represents the level of GDP, then a negative relationship between the initial GDP level and subsequent GDP growth rate indicates that smaller economies grow faster than bigger ones as they are both approaching the steady state equilibrium. Furthermore, we can measure how fast an economic variable is converging to the steady state by calculating the speed of convergence $s = -ln\,(1+\beta)/T$, where T is the number of periods for which data is available.[1]

In the analysis, we use a data sample that is available at yearly frequency for the period 2000 to 2019 for 29 European countries[2]. Table 1 reports the β-estimates for different economic indicators and the six country groups, respectively. The first striking observation is that for most economic variables the regression coefficients exhibit a negative sign, thus indicating convergence. For instance, the estimate -0.1739 for GDP in the ALL group suggests that low-GDP economies are catching up with the larger ones by growing much quicker during the sample period – the coefficient is significant at a 5% level. Similarly, the catch-up effect is also taking place for total residential loans per capita as indicated by the β-coeffient of -0.2538 for the ALL group. The only variable that does not seem to converge within any group of countries is the number of commercial bank branches per 100,000 adults. This might be due to the digital transformation of the banking sector or market saturation. By contrasting the ALL and the EUR group and the respective variables' speed of convergence (not reported in the table for reasons of space), we observe

TABLE 1 | β-CONVERGENCE OF ECONOMIC INDICATORS

	ALL	EUR	EAST	WEST	NORTH	SOUTH
Building Permits	**-0.2033***	**-0.3143*****	-0.0336	**-0.1361***	-0.5856	**-0.5398****
GDP at Curr. Market Prices	**-0.1739*****	**-0.1623*****	**-0.0938***	**-0.1521*****	**-0.0656***	**-0.1367***
Gross Disp. HH Income	**-0.2386****	**-0.1516*****	**-0.1413*****	-0.2874	-0.0901	-0.0503
Gross Res. Loans	**-0.0965***	-0.0818	-0.1869	**-0.2093***	-0.3603	0.2835
Housing Completions	**-0.2521***	**-0.4840*****	0.0129	0.1191	-1.0658	**0.4756****
Inflation Rate	**-0.7645*****	**-0.9712*****	**-0.8450*****	**-1.2338*****	-1.7841	-1.0031
No of Commercial Bank Branches	-0.0284	-0.0472	-0.1067	-0.2711	0.1800	-0.1944
No of Transactions	-0.0529	-0.0277	-0.0186	**-0.0923****	-0.4509	0.0817
Nom. HPI (2015=100)	**-1.1297*****	**-1.0392*****	**-1.0933*****	**-0.8951*****	**-1.2074****	**-1.2166****
Owner Occupancy Rate	-0.1052	-0.1046	**-0.6500*****	-0.5213	-0.0610	**-1.1813****
Repres. Rates on New Res. Loans	-0.0394	-0.4533	0.0515	-0.5323	2.9420	**-1.9869****
Tot Res. Loans per Capita	**-0.2538*****	**-0.5204*****	**-0.4710*****	**-0.4264****	-0.1152	0.6970
Total Dwelling Stock	0.0002	-0.0357	**0.0157***	**-0.0830*****	-0.1260	-0.0316
Total Res. Loans	**-0.1093*****	**-0.3340*****	-0.0312	**-0.2207*****	-0.0643	**-0.3145*****
Unemployment Rate	**-0.8170*****	**-0.7357*****	**-0.5669****	**-0.8289****	**-0.5566***	-0.2064

NOTE: This table presents the β-convergence estimates for the macroeconomic variables reported in column 1. In each regression, the dependent variable is defined as the macroeconomic variable's compound growth rate between the base and the final year and the explanatory variable is the natural logarithm of the macroeconomic variable in base year. The base year varies 2000 and 2010, depending on data availability and country group. The final year is 2018. Data is available at yearly frequency. The results are reported for six country groups (columns 2 to 7). Country group ALL is comprised of 29 countries (AT, BE, BG, CY, CZ, DE, DK, EE, ES, FI, FR, GR, HR, HU, IE, IT, LT, LU, LV, MT, NL, NO, PL, PT, RO, SE, SI, SK, UK), the EUR subgroup is comprised of the 19 Euro area countries, EAST (WEST, NORTH, SOUTH) is a subset of ALL and consists of 11 (8, 4, 6) countries. Statistical significance is denoted by ***, **, and * at the 1%, 5%, and 10% level, respectively.

Source of data: EMF-ECBC

1 Please note that the speed of convergence is defined only for $-1 < \beta < 0$.

2 Not all of the variables that we looked at were available for all 29 countries for the whole time period covered, i.e., our panel dataset is unbalanced. Thus, the presented individual results are calculated using a varying number of observations, depending on the respective variable and country group.

that the majority of the indicators exhibit a higher speed of convergence within the Euro area. The fastest converging variables are inflation rate, unemployment rate, representative rates on new residential loans, and total residential loans per capita. This can be interpreted as a benefit of being a member of the monetary union. However, the presented variable convergence is not recent. By restricting the sample period to 2000-2015, the additional results (not reported in the table) suggest that for most of the variables convergence was also taking place prior to the implementation of the MCD.

WHAT ABOUT THE LINKS BETWEEN THE ECONOMIC AND MORTGAGE VARIABLES?

In the following, we run an OLS regression in order to investigate whether the above variables are associated with the main mortgage market indicators. We employ the following regression model:

$$y_{i,t} = \alpha + \beta' x_{i,t} + \varepsilon_{i,t}$$

where $y_{i,t}$ is the dependent variable in country i in year t, $x_{i,t}$ is a vector of explanatory variables, α and β' are the coefficients that have to be estimated, and $\varepsilon_{i,t}$ is the error term.

Our main variables of interest y are: (i) total residential mortgage lending growth (a proxy for mortgage market growth), (ii) growth in the number of transactions (a proxy for the general activity in the housing market), and (iii) the representative rate on new residential loans (a proxy for the cost of borrowing). The vector of explanatory variables x is chosen such that countries' household characteristics, housing circumstances, and the general economic situation are accounted for. The regression sample consists of mortgage market, household and economic variables at yearly intervals for the same 29 countries that were investigated in the beta-convergence analysis. Following the above definitions, countries are categorized into five subgroups in order to capture regional differences.

Tables 2 and 3 report the regression estimates. In Table 2, the first striking observation is that mortgage market growth is highest in low-GDP economies within the subgroups ALL, WEST, and SOUTH (cf. columns 2, 5, and 7), suggesting that the smaller economies not only grow faster in terms of GDP, as initially observed in Table 1, but also in terms of mortgage lending. A foreseeable result is the positive significant correlation between HPI and lending growth since more expensive houses require larger loans. However, this is not mirrored by the disposable income evolution, hinting to an affordability deterioration. In general, the findings indicate that high owner occupancy rates, low unemployment rates, and high central bank rates are positively associated with mortgage lending growth. However, the results are less obvious for total dwelling stock and density of commercial bank branches; both variables have a positive correlation with lending growth in the Western European country group while the opposite is true for Southern Europe. The reason for this discrepancy might lie in some general structural differences between the two country groups. For instance, Spain and Italy experienced in recent years a rapid decline in the number of bank branches, suggesting that customers have increased the usage of digital banking and might, thus, be less dependent of bank branches than other regions.

Turning to housing transactions (last six columns in Table 2), we can observe a positive correlation with unemployment, which might be explained by an increase in foreclosures in times of economic distress. Inflation seems to be negatively associated with transactions as real estate is generally considered as a hedging instrument. The positive correlation between house price growth

TABLE 2 | WHAT IS LINKED WITH MARKET GROWTH?

	TOT. RES. LOANS GROWTH						TRANSACTIONS GROWTH					
	ALL	EUR	EAST	WEST	NORTH	SOUTH	ALL	EUR	EAST	WEST	NORTH	SOUTH
Owner Occ. Rate	0.0109	0.4663***	-0.2214	-0.0651	1.0253*	1.6570***	0.1192	-0.2971*	0.3499	-0.2781	-0.4533	-0.5455
	[0.1125]	[0.1348]	[0.2907]	[0.0965]	[0.6015]	[0.3751]	[0.1327]	[0.1667]	[0.4528]	[0.2119]	[0.8211]	[0.8156]
Disposable HH Income	0.0203	0.0068	0.3807	-0.0153	-0.4819	0.2603***	-0.0533	-0.0263	-0.1847	-0.0145	0.0222	0.0228
	[0.0427]	[0.0615]	[0.3030]	[0.0135]	[0.3278]	[0.0720]	[0.0398]	[0.0685]	[0.6205]	[0.0203]	[0.3872]	[0.1534]
HPI Growth	0.7563***	0.6502***	1.0047***	0.3463***	0.3727***	0.2627**	0.6293***	0.8267***	0.3110	1.0233***	0.3851	1.5365***
	[0.0966]	[0.0916]	[0.1716]	[0.1149]	[0.0966]	[0.1257]	[0.1355]	[0.1506]	[0.2229]	[0.2530]	[0.3348]	[0.4047]
Total Dwelling Stock	0.0367*	0.0491	-0.0528	0.0757***	0.1315	-0.0849**	0.0120	-0.0055	-0.1003	-0.0509	0.1959	-0.0210
	[0.0188]	[0.0314]	[0.0881]	[0.0210]	[0.0979]	[0.0349]	[0.0191]	[0.0246]	[0.1000]	[0.0504]	[0.1268]	[0.1164]
No of Comm. Bank Branches	0.0042	-0.0007	0.0775	0.0336***	0.0027	-0.0576**	-0.0235**	-0.0094	-0.0158	-0.0058	0.0159	-0.0573
	[0.0123]	[0.0093]	[0.0727]	[0.0097]	[0.0122]	[0.0242]	[0.0118]	[0.0122]	[0.0683]	[0.0257]	[0.0164]	[0.0687]
GDP	-0.0798**	-0.0625	-0.3989	-0.0791***	0.3300	-0.1953**	0.0439	0.0219	0.3125	0.0687	-0.2095	0.0039
	[0.0368]	[0.0406]	[0.3291]	[0.0224]	[0.3114]	[0.0772]	[0.0380]	[0.0609]	[0.6168]	[0.0604]	[0.4004]	[0.1290]
Unemployment Rate	-0.3381*	-0.7030***	-0.9089	-0.8982***	-0.3020	-0.2259	0.4825*	0.7429**	1.2008	1.6583***	0.7155	0.8903
	[0.2022]	[0.2603]	[0.6947]	[0.2121]	[0.5838]	[0.2039]	[0.2511]	[0.3125]	[0.7220]	[0.5101]	[1.6347]	[0.6874]
Inflation Rate	0.6163	-0.0011	-0.5586	0.4555	-0.8764	-0.5495	-1.9911***	-1.1571**	-2.0546***	0.2872	-3.9757***	-2.7810
	[0.5454]	[0.7342]	[0.7610]	[0.6716]	[0.8305]	[0.5739]	[0.5548]	[0.5845]	[0.6536]	[1.2736]	[1.4442]	[1.8784]
Central Bank Policy Rate	3.0073***	4.3607***	5.5726***	0.7788**	-0.8474	5.0612***	-0.3416	-2.5502***	0.3261	-1.8921**	-1.3920	-1.5268
	[0.7190]	[0.7297]	[1.2565]	[0.3739]	[1.2963]	[0.6783]	[0.5579]	[0.7216]	[1.1068]	[0.9337]	[1.5834]	[1.6056]
Observations	428	297	155	139	54	80	333	233	84	121	54	74
R-squared	0.3405	0.3926	0.3219	0.4718	0.5041	0.7306	0.1935	0.2893	0.2035	0.3245	0.3995	0.3806

NOTE: This table presents regression results for the dependent variables; Total Residential Loans Growth (columns 2-7) and Transactions Growth (columns 8-13). The explanatory variables are; owner occupancy rate, logarithm of gross disposable household income, house price index growth rate, logarithm of total dwelling stock, logarithm of the number of commercial bank branches, the logarithm of GDP at current prices, unemployment rate, inflation rate, and central bank policy rate. The sample period covers the years 2000 to 2019, where data for individual countries and variables is available. Robust standard errors are reported in squared brackets. Statistical significance is denoted by ***, **, and * at the 1%, 5%, and 10% level, respectively.

Source of data: EMF-ECBC

TABLE 3 | WHAT IS LINKED TO NEW LOAN INTEREST RATES?

	TOT. RES. LOANS GROWTH					
	ALL	EUR	EAST	WEST	NORTH	SOUTH
Owner Occ. Rate	-0.0025 [0.0080]	**-0.0230***** **[0.0080]**	-0.0251 [0.0195]	**0.0265**** **[0.0105]**	-0.0102 [0.0502]	**0.0702**** **[0.0311]**
Disposable HH Income	-0.0035 [0.0032]	**-0.0120***** **[0.0046]**	**0.0269*** **[0.0155]**	-0.0004 [0.0035]	0.0210 [0.0230]	**0.0231***** **[0.0068]**
HPI Growth	**-0.0376***** **[0.0076]**	**-0.0381***** **[0.0065]**	**-0.0243**** **[0.0109]**	**-0.0393***** **[0.0109]**	**-0.0437***** **[0.0082]**	**-0.0587***** **[0.0127]**
Total Dwelling Stock	**0.0074***** **[0.0012]**	**0.0078***** **[0.0018]**	**0.0094***** **[0.0031]**	0.0033 [0.0026]	0.0031 [0.0068]	**-0.0171***** **[0.0047]**
No of Comm. Bank Branches	-0.0001 [0.0010]	**0.0026***** **[0.0009]**	-0.0017 [0.0029]	**-0.0030**** **[0.0014]**	**0.0037***** **[0.0013]**	-0.0019 [0.0030]
GDP	**-0.0049*** **[0.0029]**	0.0033 [0.0036]	**-0.0347**** **[0.0167]**	-0.0029 [0.0035]	-0.0141 [0.0249]	-0.0110 [0.0078]
Unemployment Rate	-0.0036 [0.0125]	-0.0161 [0.0137]	0.0477 [0.0353]	0.0406 [0.0356]	0.0295 [0.0873]	0.0343 [0.0223]
Inflation Rate	**0.0573**** **[0.0284]**	**0.0952***** **[0.0257]**	0.0445 [0.0349]	**0.1207**** **[0.0569]**	0.1526 [0.1083]	**0.1518**** **[0.0597]**
Central Bank Policy Rate	**0.8310***** **[0.0501]**	**0.6810***** **[0.0414]**	**0.8951***** **[0.0750]**	**0.6370***** **[0.0439]**	**0.9140***** **[0.0870]**	**0.7618***** **[0.0932]**
Observations	406	279	145	133	51	77
R-squared	0.7518	0.6685	0.7628	0.7006	0.9191	0.7817

NOTE: This table presents regression results for the dependent variable Representative Rate on New Residential Loans. The explanatory variables and the sample period are the same as stated in Table 2.

Source of data: EMF-ECBC.

and transaction growth is not accompanied with disposable household income increases, thus, further hinting towards general housing affordability issues.

Table 3 presents the empirical links between the macroeconomic factors and the interest rate on new residential loans. The first intuitive observation is that inflation and central bank policy rates are associated positively with the cost of borrowing. A rather inconclusive finding is whether the supply of credit (as proxied by the number of commercial bank branches), is positively (cf. subgroups EUR and NORTH) or negatively (cf. WEST) correlated with mortgage rates. The significantly negative coefficients for house price growth indicate that rates are lower in times of house price booms within all country subgroups. Among the Euro area countries, mortgage rates are higher in regions with low owner occupancy rates and low disposable household income. Furthermore, rates tend to be higher in smaller economies as indicated by the negative regression coefficients for the explanatory variable GDP across all country groups.

CONCLUSION

To summarise, the presented findings suggest that the mortgage market and the general economic convergence has been taking place during the last two decades in Europe. The introduction of MCD might have facilitated this development in recent years, but the time span is too short for making general statements. In the long term, the catch-up effect of smaller economies will probably continue, which shall be reflected both in the strengthening of the general economy and increased activity in the mortgage market.

However, the recent developments in light of the global COVID-19 outbreak will likely affect the European housing markets negatively in short to medium term as consumer confidence in the economy has deteriorated. This is confirmed by surveys documenting that since March 2020, home sales have decreased and sales times have lengthened. Furthermore, an increasing number of borrowers cannot repay their debt on time, putting the banking system's resilience on a test. Governments responded to this challenge with a plethora of policies. The effectiveness and success of these measures are yet to be evaluated.

BIBLIOGRAPHY

Barro, R. J., & Sala-i-Martin, X. (1992). Convergence. *Journal of political Economy, 100*(2), 223-251.

Billio, M., Donadelli, M., Paradiso, A., & Riedel, M. (2017). Which market integration measure, *Journal of Banking & Finance*, 76, 150-174.

Paas, Tiiu, et al. (2007). Econometric analysis of income convergence in selected EU countries and their NUTS 3 level regions. *The University of Tartu Faculty of Economics and Business Administration Working Paper* 60-2007.

Financing Affordable Home Ownership in Europe

By Christine Whitehead and Peter Williams, London School of Economics and Department of Land Economy, University of Cambridge

INTRODUCTION

In Hypostat 2019 the Secretariat presented an overview of the funding mechanisms available to support affordable housing in Europe – including social rented housing, affordable (or intermediate) rental housing and affordable home ownership (EMF-ECBC Secretariat, 2019). This year the EMF took part in a UK based project led by Christine Whitehead and Peter Williams looking more specifically at the policies available to support affordable home ownership and the public and private financial arrangements that enable these initiatives to be attractive to households and providers alike (Whitehead and Williams, 2020) [1].

The paper looks at experience of affordable homeownership in the UK and Europe together with some comparison of countries with well-developed financial systems, notably Australia and Canada. This article reflects on some of the findings mainly with respect to government supported schemes but also the potential for market initiatives.

DEFINITION OF AFFORDABLE HOUSING

Across countries the definition of affordable housing varies enormously – but in principle and policy terms it almost always involves some form of subsidy to allow lower-income households to be able to afford adequate housing, while leaving them enough money for other necessities of life. Importantly however it can also involve both government and market approaches to reducing risk and overcoming barriers to home ownership by reorganising payments and limiting deposit requirements.

Historically across Europe affordability has tended to be addressed by the provision of rental housing let at below market rents, usually owned either by local government or non-profit housing providers. Traditionally provision has been funded by governments and since financial market liberalisation by mixed funding regimes (Lunde and Whitehead, 2015). But in emerging economies that came late to affordable housing policy, home ownership initiatives have tended to become the norm (RICS, 2019; Garcia de Freitas, 2015).

Even in countries with significant social rented sectors there has been increasing interest in providing low-cost homeownership products, in part because of consumer preferences but also reflecting the more general growth in asset-based welfare models (Stephens, 2020). More practically it enables mixed funding regimes to develop under which households can access private mortgage and, potentially, equity finance with relatively low risk thus reducing the direct costs to government. Ultimately, it may prove possible to develop wholly market based products which both reduce risk and re-organise household expenditure so that no subsidy is required – although current attempts are extremely limited.

A WIDE RANGE OF POLICY APPROACHES TO FINANCING AFFORDABLE HOME OWNERSHIP

The evidence from the EMF Research and Data Committee survey reflected three main approaches to government support for homeownership among lower income households. The instruments identified are almost all concentrated on supporting an 'intermediate' market, particularly those buyers who with some initial support could be expected to be able to pay their housing costs into the longer term.

(a) *Grants directed at new building:* sometimes only for rent, sometimes for all tenures but increasingly for owner-occupation. These types of grant are most prevalent in ex-transition countries where the vast majority of households are owner-occupiers but demand pressures are inadequate to provide incentives for enough additional market housing. These types of grants often supplement other mechanisms to reduce the costs of producing these properties, notably through lower land costs.

(b) *Subsidies to individuals:* these reduce the costs of owner-occupation – either through a direct payment to eligible households or through reductions in mortgage costs - are being adopted by an increasing number of European countries. Examples include: Croatia where there are mortgage subsidies for younger households; Hungary: which provides grants to family households to help them buy; Germany: which also has a system of grants for low income families as well as savings schemes and subsidised mortgage loans; France: where there is a long history of zero and low interest rate loans for home owners; the Netherlands: where they have developed starter loans in addition to basic mortgages for first-time buyers from municipalities which are to be repaid when the household's income reaches a specified higher level; Spain where there are both favourable mortgage loans and direct grants.

(c) *Mortgage Guarantees:* which reduce the risks to mortgagees and help reduce the interest rate charged and extend the market to lower income households. Examples include: Latvia: where there has been a government supported guarantee for family households for many years which has been extended during the pandemic to other types of household; Finland: where there are savings/deposit guarantees as well as guarantees for first time buyers; the Netherlands: where there have been multiple levels of guarantees available for decades, first concentrated on new build and then on lower priced dwellings more generally.

GROWING INTEREST IN SHARED OWNERSHIP AND PARTIAL EQUITY PRODUCTS

Shared ownership and partial equity products which involve innovative financing methods are seen to be of increasing interest. However, they are still limited to

[1] This LSE London project was funded by the Building Societies Association and the UK Collaborative Centre for Housing Evidence and included a review of international, notably European, experience. Seven EMF members provided detailed examples of affordable home ownership instruments. The report authored by Christine Whitehead and Peter Williams will be available on the CaCHE website at https://housingevidence.ac.uk/.

a relatively small number of countries, partially because of the complex legal issues associated with equity sharing[2].

The European country with the longest experience of shared ownership products is the UK where they were introduced in 1980. In this system the purchaser buys a proportion of a property typically from a housing association and pays rent to the association on the proportion still owned by that association. Agreements are always based on leasehold arrangements but the purchaser has a right to 'staircase' up to 100% at any time. It was originally expected that most households would become full owners relatively quickly but nowadays they may remain partial owners.

In 2013 the UK government introduced Help to Buy, a partial equity mortgage product where the government provided an equity mortgage of up to 20% (40% in London) of the value of the property, thus sharing the risks of gains and losses and reducing both the deposit required and repayments. The purchaser puts in a minimum of a 5% deposit and borrows the rest from a traditional mortgage provider. The product is only available on new build properties and was introduced in part to support the development industry after the 2008 financial crisis. The scheme has been very popular but will be phased out in 2023.

The Netherlands is the other European country that has used similar products to a significant degree. The latest, Koopen naar Wens, scheme delays payment on up to 50% of the value of the property (although usually only 25%) with that share taken by a housing association as equity to be paid for at current prices when income allows. This is only the latest in a wide range of shared ownership/equity products provided by housing associations (see e.g. Elsinga et al, 2015).

Other similar products referenced by EMF members included: Ireland: where eligible households may buy a new home built by a housing association with government subsidy and pay a discounted price (up to 40%) with the relevant proportion taken as an equity share by the local authority; and Slovenia: where one municipality has taken an equity share in a small number of dwellings but where it is intended that the programme will be expanded. The availability of these more complex products generally depends on governments' preparedness to develop the necessary legal and regulatory frameworks.

MARKET BASED FINANCIAL PRODUCTS

Market based products aimed not only at reducing payments but also at managing risk more effectively have been a subject of discussion for many years (see Smith et al, 2013 for a review). At that time there were a number of private sector products coming to market.

However, there have been relatively few initiatives and most have died quite quickly. Examples are mainly limited to the USA, the UK, Australia and Denmark. Early products such as shared appreciation mortgages had fundamental flaws and required higher quality house price data than was readily available. Funding has mainly been through retail products, although there is a growing interest from institutional investors who want to have a role in affordable housing of all types and are now keen to add residential property to their portfolios.

The few examples of products that have got close to market reflect the fact that they are expensive and often do not protect against the possibility of capital losses. A Danish example based on US finance (an interest-free and zero repayment loan until sold on, when the finance company gets 25% of the value in the Danish case) was on the verge of being launched pre-COVID-19 – but is unlikely to be launched in current circumstances. The same is true in the UK where a number of products were being developed but to date none have been launched. They include a top-up structure using institutional finance blended with a conventional mortgage product; collective funding often combined with parental contributions; shared household contributions alongside a traditional mortgage; and a simpler joint investor equity loan together with a mortgage funded by the purchaser.

Considerable legal and regulatory hurdles have to be overcome to make any of these work. Unsurprisingly potential investors are currently holding back. Products are unlikely to be launched into a market where capital values may well decline in response to the pandemic and Brexit. For such initiatives, timing is everything because so much flows from the market context. To date, most borrowers will always opt for fairly standard mortgage products if they have a choice

CONCLUSIONS

The issue of how best to finance affordable home ownership is high on the list of government priorities in many countries. Almost all significant initiatives still involve government support and are often government led, even though they are increasingly looking for market involvement to limit their own contribution. These products are often made available in partnership with municipalities or housing associations.

In many European countries there is a growing range of government sponsored products often concentrated on supporting the construction of additional affordable homes as well as making that housing more affordable through a range of grants, subsidised mortgages and other loans and guarantees. In the main these products support an intermediate market in which beneficiaries have incomes that are relatively close to those anyway able to access market products.

The availability of more complex products such as shared ownership and shared equity mortgages depends on governments' preparedness to develop the necessary legal and regulatory frameworks as well as (often) to take some of the risks. The products are mainly restricted to Western European countries with mature mortgage markets which continue to provide the necessary traditional mortgage products.

There is interest in developing wholly market products mainly in Anglo-Saxon based countries. In reality these have not taken off in any country, except to a limited extent in the USA.

COVID-19 will probably bring market initiatives to a halt – as occurred after the global financial crisis. Lenders and investors are coming back down the risk curve and retreating from innovation.

2 A number of countries (eg Denmark, Germany and Sweden) have a history of co-operative ownership. In the USA and Canada affordability is ensured by the separation of land and building through Community Land Trusts. While both aim to provide affordable home ownership they do not involve innovative financing mechanisms.

REFERENCES

Barton, C. and Cromarty, H. (2020) *Shared ownership: the fourth tenure?* House of Commons Library, London: Parliament

EMF-ECBC Secretariat (2019) The funding of affordable housing in Europe, *Hypostat* 2019; Brussels: EMF

Garcia de Freitas, F., A. Rossbach, J. Santa Rosa, J. and Whitehea, C. (2015). *Dialogue Brazil and European Union: Social Housing*, Finance and Subsidies. Brasilia: Ministry for Cities

Elsinga, M., Hoekstra, J. & Dol, K. Financial implications of affordable home ownership products: four Dutch products in international perspective (2015). *Journal Housing and the Built Environment* Vol 30, 237–255

Lunde J and Whitehead C (2015) *Milestones in European Housing Finance*, Oxford: Wiley Blackwell

RICS (2019) International Models for delivery of affordable housing in Asia, Insight Paper. Available at : https://www.rics.org/uk/news-insight/research/insights/international-models-for-delivery-of-affordable-housing-in-asia/

Smith, S. Whitehead, C. and Williams, P (2013) *A Role for Equity Finance in UK Housing Markets*, York: Joseph Rowntree Foundation.

Stephens, M. (forthcoming, 2020) How housing systems are changing and why: a critique of Kemeny's theory of housing regimes, *Housing Theory and Society*.

Whitehead, C. and Williams, P. (2020) Thinking outside the box. Exploring innovations in affordable home ownership. Glasgow, CaCHE.

Energy Efficient Mortgages Initiative: Firm Steps Towards Making EEM a Reality in the Market

By Luca Bertalot, EEMI Coordinator[1], Jennifer Johnson, Sofia Garrido, European Mortgage Federation - European Covered Bond Council

INTRODUCTION

With climate change being the focus of policymakers for several years and with a society that continues to demand additional commitment from politicians and different industry sectors to fight climate change, in December 2019 the European Commission presented the European Green Deal, a roadmap to make the European economy more sustainable. The European Green Deal was conceived as a growth strategy that would change our way of living and working in order to achieve the green transition in the coming years. It marked the first milestone of achieving the EU's climate neutrality by 2050 as proposed in the European Climate Law. It is clear that to achieve this climate neutrality all economic sectors and society members will need to face an important transformation that will not be exempt of important investments.

In this context, the European Commission signalled buildings as the major consumers of energy and producers of emissions and therefore highlighted the need to make buildings more energy efficient as one of the requirements to get close to the target of climate neutrality.

The strategic importance of energy efficiency, and therefore of the EMF-ECBC led Energy Efficient Mortgages Initiative (EEMI), was not only signalled in the EU 2020 goals but also in the EU 2030 goals. However, when these priorities were set nobody could anticipate what 2020 would bring. In the past months, we have experienced a global pandemic without precedent, the COVID-19 outbreak has changed all we knew before consequently altering most of our priorities. However, if there is one thing that this pandemic and the subsequent crisis has made clearer than ever is the need to fight climate change, as this is one of the factors that directly affects pandemics. While most policy and social priorities have shifted as a result of this phenomenon, the need to take care of our environment to avoid future health crises is now more present than ever.

The fact that climate change continues to be a priority was reinforced during the 2020 State of the Union Speech from the European Commission's President. Ursula Von der Leyen announced a new target of reducing emissions by 55% by 2030 in order to achieve climate-neutrality by 2050. This new goal increases the pressure on society and across industries to fast forward the transition.

These changes are not only needed to achieve climate neutrality goals but are also the fastest way to recover from the current crisis. A Green Recovery for the EU will be the moto for the upcoming months.

This news arrived at a time when the EEMI was making some of its most important progress to date, which will be presented below. To recall, the EMF-ECBC, together with several partners, 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 as developed by the EU-funded Energy Efficient Mortgages Action Plan (EeMAP) is supported by a data infrastructure developed by the EU-funded Energy Efficiency Data Protocol & Portal (EeDaPP) and intended to facilitate the collection of and access to large-scale empirical evidence relating to energy efficient mortgage assets, allowing a comprehensive analysis of the energy efficiency features which are believed to have a positive impact on property value and a bank's credit risk.

STEP 1 – 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.

As indicated above, 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) 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].

FIGURE 1 | ENERGY EFFICIENCY DRIVERS IMPACTING RISK PARAMETERS

Source: EeMAP

[1] The EeMAP, EeDaPP, EeMMIP project have received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 746205, No. 784974 and No. 894117 respectively.

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. As will be described later in this article, the establishment in the meantime of a strong negative correlation using large-scale empirical evidence could lead regulators to realignment capital requirements to reflect the lower risk of energy efficient mortgages.

FIGURE 2 | UNDERLYING BUSINESS CASE

Source: EeMAP

Indeed, 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. 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.

In recent times, the importance of the financing industry has been recognised by European legislators across a range of policy actions aimed at bringing the financial sector into line with commitments on climate change. As part of these efforts in March 2018, the European Commission published an Action Plan on Financing Sustainable Growth with the aim of: (a) reorienting capital flows towards sustainable investment, in order to achieve sustainable and inclusive growth; (b) managing financial risks stemming from climate change; (c) fostering transparency and long-termism in financial and economic activity. This strategy has not only been boosted by the EU Green Deal and the focus on a 'Renovation Wave' for which significant private financing will be required, but will be further boosted later this year when the European Commission presents its Renewed Sustainable Finance Strategy. Finally and in parallel, the European Banking Authority continues developing its work on Sustainable Finance which is expected to culminate in 2025. Of particular relevance for the EEMI is the planned assessment by the EBA of the appropriateness of a different assessment of prudential treatment for exposures associated with environmental and/or social objectives in the upcoming years. 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.

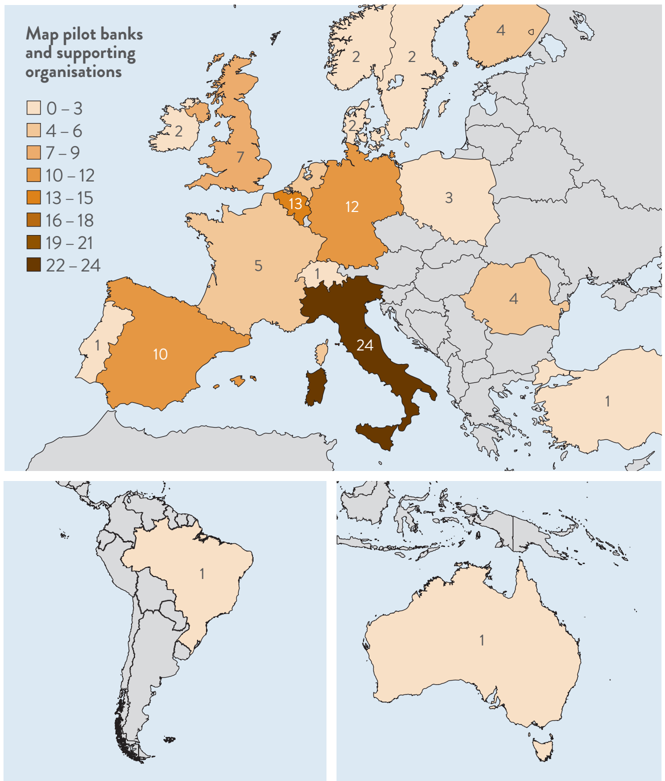
All the above-mentioned initiatives confirm the timely development and relevance of the EEMI in the broader policy context.

STEP 2 – THE LENDING INSTITUTIONS BEHIND THE INITIATIVE

A number of ingredients are key to making the EEMI successful and to securing large-scale market uptake. First, the energy efficiency mortgage framework relies on trust and a carefully aligned value chain among all market participants: financial institutions, investors, regulators, energy assessors, utility companies, contractors and valuers to name but a few. 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.

The EEMI represents the first time a group of major lenders and other stakeholders from the building and energy industries have proactively come together to discuss private financing of energy efficiency. Currently, sixty-one lending institutions have committed to being part of the Initiative. As of September 2020, these lending institutions represented 76.3% of mortgages outstanding in the European Union, equal to 34% of EU GDP, so they represent a significant critical mass on the market. The Initiative 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.

FIGURE 3 | NUMBER OF PARTICIPANTS



Source: Energy Efficient Mortgage Initiatives (EEMI)

The map displayed above shows the location of the participants in the EEMI with a clear national link. In addition, seven international/European supporting organisations have to be taken into account. The number of lending institutions and supporting organisations has grown by almost 33% in the course of a year reflecting the growing support to the initiative which is expanding beyond Europe and gaining the confidence of market participants in countries such as Australia and Brazil.

The map below displays the latest state of commitment made by 61 banks across Europe to participate in the EEMI which, in total, represent EUR 5.9 bn (76.3%) in terms of outstanding mortgage loans in the EU.

FIGURE 4 | LIST OF PARTICIPANTS TO THE EEMI PILOT-SCHEME AS END-SEPTEMBER 2020

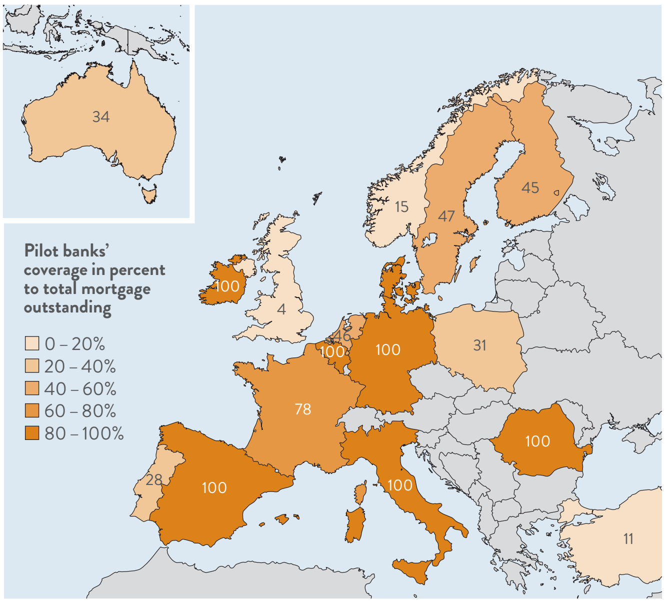
COUNTRY	PILOT PARTICIPANTS	PILOT BANKS	TOTAL OUTSTANDING MORTGAGE MARKET*	MORTAGE LOAN PORTFOLIO OF PARTICIPANTS**	COVERAGE IN %
BE	13	9	263,419	263,419	100.00
DE	12	7	1,530,434	1,530,434	100.00
DK	2	1	258,799	258,799	100.00
ES	10	3	487,561	487,561	100.00
FI	4	3	100,354	44,746	44.59
FR	5	4	1,078,000	845,433	78.43
HR	1	0	—	—	—
IE	2	1	81,637	81,637	100.00
IT	24	17	382,583	382,583	100.00
NL	4	3	722,672	335,896	46.48
PL	3	2	100,579	31,564	31.38
PT	1	1	93,846	26,067	27.78
RO	4	2	16,999	16,999	100.00
SE	2	2	422,742	200,334	47.39
EU	5	0	—	—	—
AU	1	1	739,544	253,140	34.23
BR	1	0	—	—	—
CH	1	0	—	—	—
NO	2	2	298,318	45,519	15.26
TR	1	1	29,784	3,157	10.60
UK	7	2	1,708,134	63,441	3.71
Total EEA	94	57	6,203,309	4,550,990	73.36
Total EU	92	55	5,904,991	4,505,471	76.30
Total euro area	84	50	5,021,591	3,997,775	79.61
TOTAL	105	61	—	—	—

* Figures taken from Hypostat 2020

** Figures taken from investor reports of the participating institutions

Source: Energy Efficient Mortgage Initiatives (EEMI)

FIGURE 5 | COVERAGE OF PILOT BANKS TO TOTAL MORTGAGE OUTSTANDING IN 2019



Source: Energy Efficient Mortgage Initiatives (EEMI)

To support participants, National Market Hubs were set up across Europe as a next step with a view to achieving coordination at national level and ensuring market consensus and implementation for energy efficient mortgages. The objectives of this stakeholder collaboration are to:

- Address and overcome 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 have been 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.

Lending institutions and national market hubs are supported by an Advisory Council, which includes 17 national, European and international authorities or organisations. The aim 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 to address specific market failures and the criticalities identified during the implementation phase, and ensure policy alignment.

STEP 3 – ESTABLISMENT OF ENERGY EFFICIENT MORTGAGE DEFINITION

The work of the EU Commission on Sustainable Finance and the EEMI both rest on standardised classifications and benchmarks 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 will 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.

For its part, the EU Commission finalised is Taxonomy Regulation earlier in the year providing 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. Further policy action based on these common metrics, including standards, labels, and any potential changes to prudential rules is currently being developed.

In this context, 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, the 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.

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 was 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.

EEM DEFINITION

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 Energy Performance Certificate [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
https://eemap.energyefficientmortgages.eu/eem-definition/

The launching of the definition was timely and the efforts to influence the taxonomy debate were fruitful as the final Taxonomy is aligned with the EEM definition. Nevertheless, 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.

STEP 4 – CORRELATION ANALYSIS BETWEEN ENERGY EFFICIENCY AND RISK

After the major achievement of the EEM definition, the work of the EEMI did not stop there. Indeed, through EeDaPP, the EEMI has delivered additional important results, including the EeDaPP Master Template intended to support the collection of data on EEM, and the final results of the analysis of the correlation between energy efficiency and credit risk.

As stated above the main underlying assumption of the EEMI is that energy efficient mortgages represent several advantages for lending institutions, borrowers and policymakers. Namely, they are believed to reduce the owners' payment disruption risk, increase property value and, as a result, reduce credit risk for banks and financial institutions. One of the key focuses of EeDaPP was on substantiating this correlation.

In August, after more than two and a half years of work, the findings of EeDaPP were published: importantly, the analysis finds that there is a negative and significant correlation between building energy efficiency and the probability of mortgage default. This important result in the current policy context could potentially pave the way for new policy considerations in relation to energy efficient mortgages. Additionally, the results indicate that the degree of energy efficiency also matters, i.e., more energy efficient buildings are associated with relatively lower risk of default. Once again, these findings highlight the role of energy efficiency in reducing the default probability of a borrower.

The econometric analysis undertaken took as its starting point on a portfolio of approximately 470,000 real estate valuations. After a data cleaning exercise, the total number of mortgages analysed was 72,980, focusing on the specific case of Italy. For the econometric evaluations, two major methodologies are applied: the Logit model and the Cox model. It is important to note that in order to arrive at the above-mentioned results it was necessary to overcome several difficulties in terms of data availability and heterogeneity of Energy Performance Certificates (EPCs) within the EU, which made comparison more difficult. Furthermore, the recent implementation of the GDPR and challenges in matching energy efficiency and financial data further complicated the exercise. With these considerations in mind, there is significant room for action at EU level to overcome in particular differences between and availability of/access to EPCs.

Despite these challenges, the results of the analysis deliver strong evidence of the positive effect of EE investments on the reduction of risk of default and on increasing the value of the property. Commenting on these:

Monica Billio, Professor (Full) of Ca' Foscari University, Venice, commented:

"After two years of data collection and markest analysis, the EeDaPP project is fundamentally shifting the energy efficiency financing debate towards an accurate analysis of correlation between credit risk and building energy performance, offering a solid quantitative basis for future policy reflections."

Daniele Vergari, CRIF, commented:

"By uncovering the correlation between collateral's environmental impact and credit risk, EdDaPP has introcuced a new 'green' paradigm shift into credit risk management: not only collateral value, but also collateral's energy performance proves to be a key determinant of risk providing further aid to the ecological transition."

All in all, this analysis is crucial in defining the benefits in addressing EE aspects in order to complement already existing public and private initiatives. These results open the possibility for a more risk sensitive regulatory treatment of EEM based on the prove that build energy performance has an impact on risk, a new tool that would allow governments to achieve climate change targets and reduce dependence of fossil fuels most importantly without any additional direct cost.

STEP 5 – EEMMIP & THE EEM LABEL

After the conclusion of EeMAP in 2018 and the finalisation of EeDaPP in August 2020, the EEMI will continue to move forward under the Energy Efficient Mortgage Market Implementation Plan (EeMMIP)Plan, which commenced at the beginning of September 2020. This will constitute the third project developed under the EEMI umbrella to continue responding to the objectives of the EU in the areas of sustainable finance and climate change, all against the background of Capital Markets Union, and with the aim of influencing the entire value chain, from consumer to bond investor, stimulating a change in mentality and securing energy efficiency in market attitudes and best practices both in Europe and globally.

This third project will build on efforts to develop energy efficient mortgages by delivering an integrated market and a blueprint for established and emerging markets around the globe. As part of the project an analysis of the current market systems relevant to the development of an EEM market will be carried out. Furthermore, demonstrators to support the end-to-end customer journey and EEM life-cycle will be established. EeMMIP will also establish market-based governance and an EEM Label to support recognition of and confidence in EEM and facilitate access to quality information for market participants. It will deliver guidance for the inclusion of energy efficiency in credit risk assessments for lending institutions and supervisors and policy recommendations for the prudential framework in line with the principle of risk sensitivity and based on the promising findings of the correlation analysis presented above. It will most of all promote a well-functioning banking market. Finally, it will support global take-up of EEM through the Label and institutional cooperation.

In this context, the EMF-ECBC is now working to establish an EEM Label which will first and foremost secure quality and transparency for market stakeholders in the gathering, processing and disclosure of EEM data, stimulating market development. It will also only facilitate further data collection to further substantiate the negative correlation between energy efficiency and risk on an ongoing basis. The Energy Efficient Mortgage Label will be the key market enabler of the large-scale uptake of energy efficiency mortgages.

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 to 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 EEM Label will take advantage of the experience the EMF-ECBC has obtained through the creation and development of the Covered Bond Label. The Covered Bond Label's Harmonised Transparency Template (HTT) will serve as a model for a Harmonised Disclosure Template (HDT) for the EEM Label, which will allow lending institutions to disclosure information on energy efficient mortgages in a harmonised way. Following the example of the Covered Bond Label, the HDT will be updated by lending institutions on a regular basis.

The EEMI Label arrives in the market at a time when green bonds are at the top of the political agenda and with the European Union standing as the leader in green finance and as the largest issuer of green bonds in the world. With sustainable covered bonds currently representing less than 1% of the market, there is significant room for growth which has the potential to be significantly boosted by the EEM Label.

NEXT STEPS

Important progress has been made on the road to making EEM a market reality and the milestones in place are clear. However, there is still a long way to go and this will not be free from obstacles.

Indeed, the origination of energy efficiency mortgages may include additional challenges for defining, assessing, monitoring and maintaining improved environmental performance, and transparently communicating performance to regulators and other market actors over the lifetime of the mortgage will require significant market efforts.

In this sense and as a result of clear and measurable criteria, the Label will help lending institutions to effectively de-risk their portfolios by identifying energy and climate risks and determining which loans and underlying assets are more robust, and disclose information on this. indeed, 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 tool to secure the appropriate prudential treatment of this asset class and further support the securitisation and issuance of green (covered) bonds.

Against this background, the efforts of the EMF-ECBC and its partners will be focused on successfully developing EeMMIP and on making of the EEM Label a market reality. In parallel a close eye will be kept on the political agenda in order to make sure that, as has been the case so far the EEMI, it remains aligned with policy actions and continues to set standards in the market.

Housing and Mortgage Markets in 2019

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

DISCLAIMER

1) The current review focuses on housing and mortgage markets up to the end of 2019, thus it does not take into account the profound impact caused by the COVID-19 pandemic, which will be tackled in detail in the EMF Quarterly Reviews and next year's Hypostat. In some cases in this review we use data as of Q2 2020 when available at the time of writing.

2) Due to the current still unclear relation between the EU27 and the UK this review has considered the UK as part of the analysis, however, in order to mark the ongoing separation, in the various charts the UK has been represented in a separate colour or with a distinct pattern. In the text depending on the context or on the data availability the sample are EU27, EU27 and UK or EU28.

MACROECONOMIC OVERVIEW

With the ongoing pandemic the figures currently registered for 2020 have marked the steepest recession since World War II and the forecast predict a contraction of the Euro area economy of 8.75% with double-digit peaks especially in the South of the area coupled with a significant increase of unemployment since March 2020 reaching over 8.1% in August 2020. Inflation in this context remains stubbornly subdued notwithstanding the accommodative policies of the ECB.

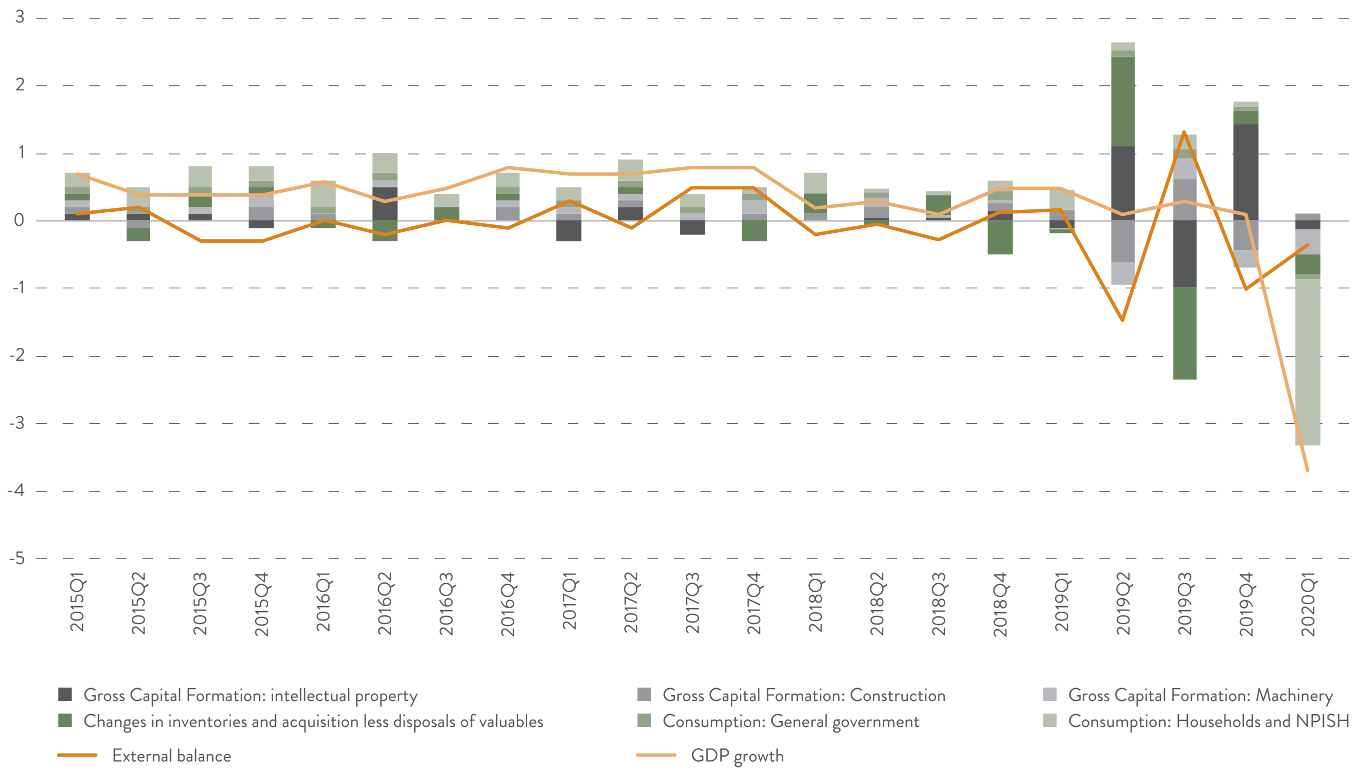
Against this background in 2019 economic fundamentals continued the still positive trend which started in 2017. All countries experienced GDP growth, unemployment continued to fall and inflation picking up.

In 2019 the Euro area grew by 1.5%, the lowest figure since 2014, marking nevertheless the longest period of economic expansion since the introduction of the Euro. This subdued figure is a result of many factors including uncertainty linked to trade policies, cyclical and structural factors such as the sharp decline in global growth , the economic transition in China, where growth declined to its lowest rate since 1990, the demographic shift and changes in car production in light of the new environmental standards, technological evolution and regulatory measures.

Looking at the global economic slowdown by sector, it was driven by a decline in manufacturing, weak trade and investment growth and partly mitigated by the growth in the service sector, and consumption and a continued improvement in labour markets. The uncertainty and the related geopolitical tensions concerning global trade remained elevated causing an increase of tariffs.

As can be seen below (Chart 1), the Euro area economy a modest 0.3% per quarter over 2019, roughly in line with the figures of 2018 and 0.5 pps smaller than the last quarter of 2017. Private consumption remained the backbone of

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



Source: Statistics Data Warehouse – European Central Bank growth in the Euro area with household income continuing to benefit from an improved labour market through increase in wages and fiscal measures in several countries. The sectorial contribution to value added in the Euro area has been quite heterogeneous with an ongoing decline of manufacturing, falling for a fifth consecutive quarter, in part due to the development in Germany where troubles in the car industry persist. However, an area of strength was the construction industry which grew by 3.2% y-o-y.

Looking at the economic sentiment confidence indicator in the euro area, a similar picture is seen with higher confidence in services and construction, and worse confidence among consumers and virtually unchanged sentiment in industry. The increase in construction confidence was fuelled by optimistic employment expectations and increased of order books.

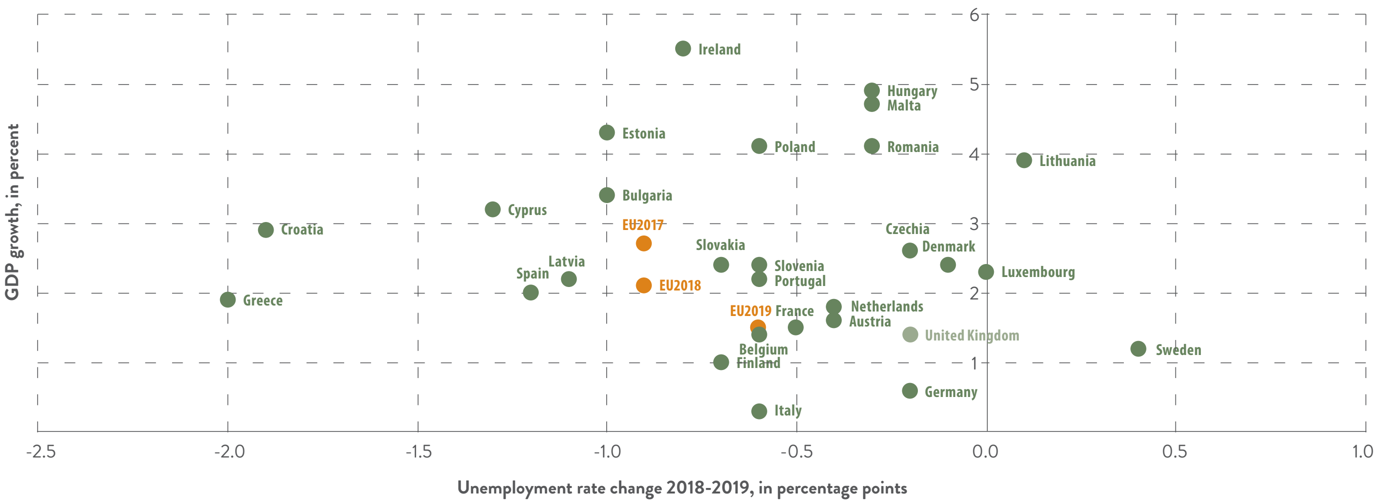
Notwithstanding slowing figures of economic growth, the labour market proved to be quite resilient in 2019 with an ongoing reduction in aggregate unemployment to 6.5% of the active population in December 2019, lower than the 2007 before the global financial crisis (GFC). Moreover, employment in the EU 27 reached 73.1%, the highest since the start of measuring in 2008 when it stood at 69.5% and after the decrease until 2013 when it reached 67.5%, therefore nearly reaching its 2020 goal of 75% in aggregate terms.

Chart 2 shows the improvement in total employment in all countries (except Sweden and Lithuania) in 2019 with respect to 2018. This was the third consecutive year of employment growth. Employment helped to counteract weak labour productivity growth.

For the first time since 2017 not all countries in the EU had both increasing GDP and decreasing unemployment 2019. Among the outliers Sweden had an increase in unemployment by nearly 0.5 pps, but Statistics Sweden consider this to be somewhat overstated due to methodological changes in data collection. Moreover Lithuania had a 0.1 pps increase while in Luxembourg the unemployment rate remained constant. Nevertheless, the differences among countries when it comes to unemployment are still remarkable with Greece having a level of 17.3%, whilst Czechia has only 2% unemployment. Improvements in 2019 were still visible especially in the countries with higher unemployment, albeit at a slower pace than in previous years.

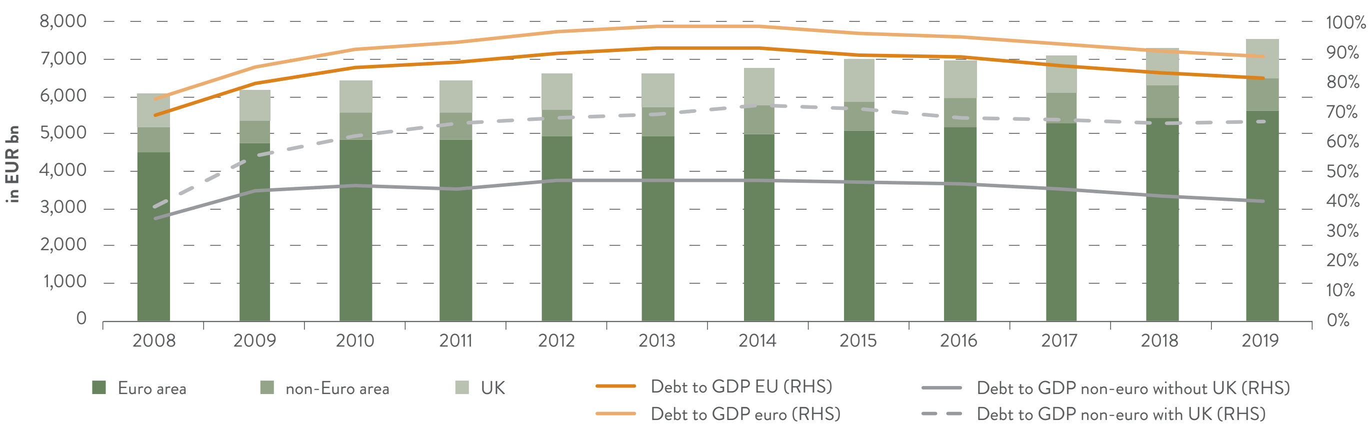
Public expenditure of national governments continued to expand passing the EUR 5.6 tn mark for the euro area countries and the EUR 1 tn mark in the UK. The debt to GDP ratio in aggregate continues its downwards path with 21 EU Member States decreasing the ratio in 2019 reaching 88% for the euro area countries and 80% for the EU 27, while the UK saw a first increase since 2014 to 67%.

CHART 2 | UNEMPLOYMENT CHANGE AND GDP GROWTH IN 2019, PERCENT



Source: Eurostat

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



Source: Eurostat

Looking at the public finances of individual countries shows an heterogeneous policy approach.

As of 2019 11 out of 27 EU Member states had public debt to GDP ratios higher than the 60% set out in the Growth and Stability Pact, which is currently suspended due to the COVID-19 outbreak, but which provides a long-term indication. Chart 4, shows that a majority of countries reduced their public debt burden. The only countries which increased their public debts had ample margin to do so as they started from below 40% debt to GDP. France and Italy with relatively high debt relative to GDP remained constant in 2019. In the current COVID-19 outbreak due to the significant public support granted by governments to effected businesses and industry sectors this picture will be very different 2020.

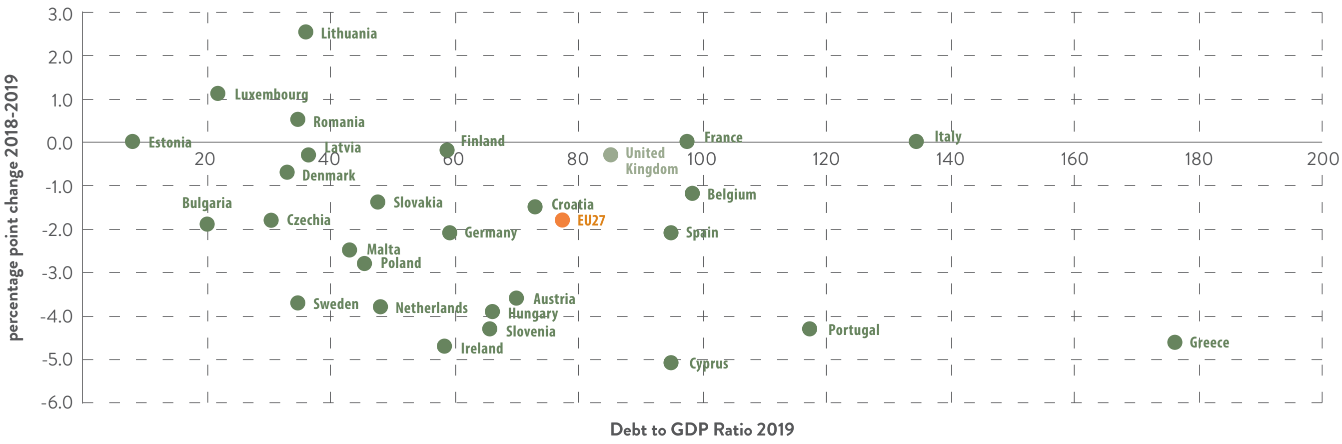
During in 2019, inflation (as measured by the Harmonised Index of Consumer Prices, 'HICP') decreased to 1.2% from an average 1.8% in 2018, mainly because of reductions in the volatile food and energy components. Excluding these inflation averaged 1.0%, in line with the two previous years.

The reasons behind inflation were the favourable labour market, rising wages and the positive macroeconomic environment. Despite these , the monetary policy support by the ECB supported price pressure. It is expected that the ECB will continue with its supporting programme regulating interest rates and purchasing assets in order to put inflation closer to the 2% target.

Both market-based and survey-based measures of expected future inflation continue to decline, as shown in chart 5, with low expectations of inflation reaching its 2% medium-term target. Over 2019 and the beginning of 2020, inflation expectations continued to fall.

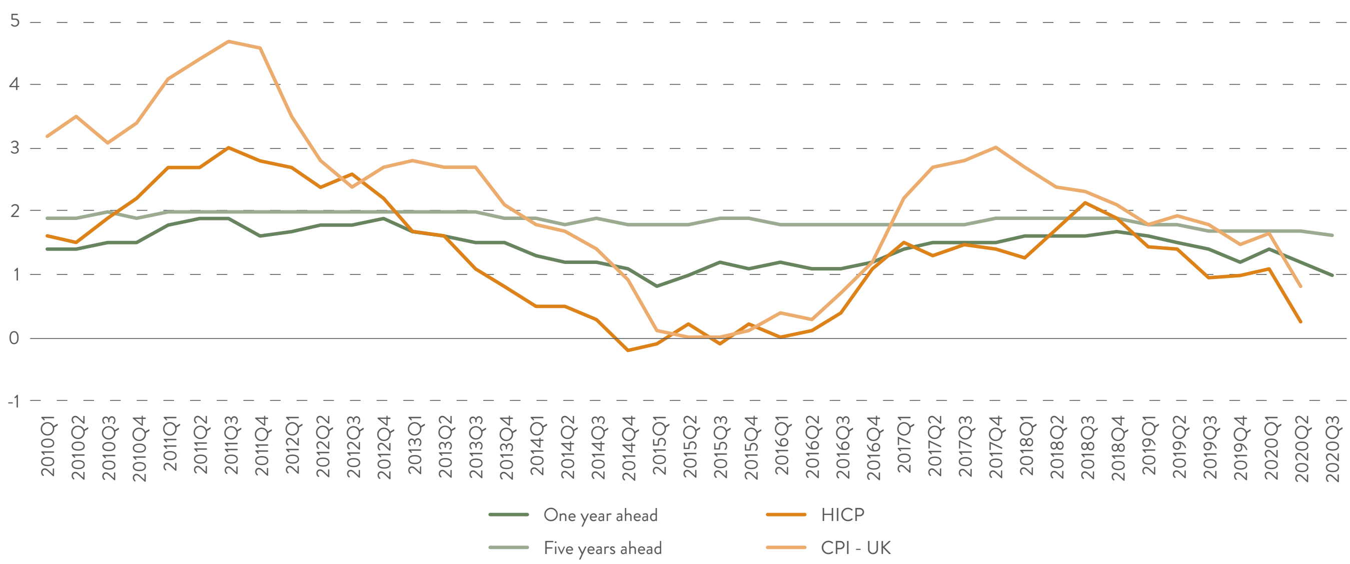
Globally economic growth remained moderate at around 3.2% and the risk of a sharper slowdown did not materialise. In most developed economies outside the EU, GDP growth decelerated. In China reflecting both domestic and external downward pressures the growth rate decreased. In emerging markets the figures remain highly differentiated, but in aggregate terms an improvement can be seen. Global business sentiment recovered especially in the last quarter

CHART 4 | PUBLIC DEBT TO GDP



Source: Eurostat

CHART 5 | 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 of 2019 due to improvements in the US-China trade relationship, in particular the agreement of a "Phase One" trade deal, thus easing tension.

TRENDS IN HOUSE PRICES

In 2019 all of the countries in our sample, except Italy, have experienced annual price increases. Only seven Member States – all from Eastern or Southern Europe – have not returned to pre-crisis house price levels. Dynamics remain mixed and the pace of price growth differs notably in the sample. In aggregate house prices grew by nearly 5.9% in 2019, slightly less than in 2018 when it grew by 6.3%.

Following EU Regulation 2016/792, the statistics of Hypostat have been rebased to 2015 to ease comparison with European and international datasets.

CROSS COUNTRY COMPSARISON

As shown in chart 6, in most countries growth in 2019 was above the average for 2013 to 2019, a period which for most countries marked a period of recovery period from the widespread contraction after the GFC and the public debt crisis in Europe.

In Southern Europe all countries grew in 2019 more than the average since 2013. In Greece and Cyprus the long contraction of previous years allowed significant house price increases. In Italy the constant prices in 2019 were an improvement on the average -2.3% contraction of previous years. On the other end of the spectrum Portuguese house prices continued to grow at a higher pace in 2019, compared with the already relatively hight average growth of 6.8% since 2013.

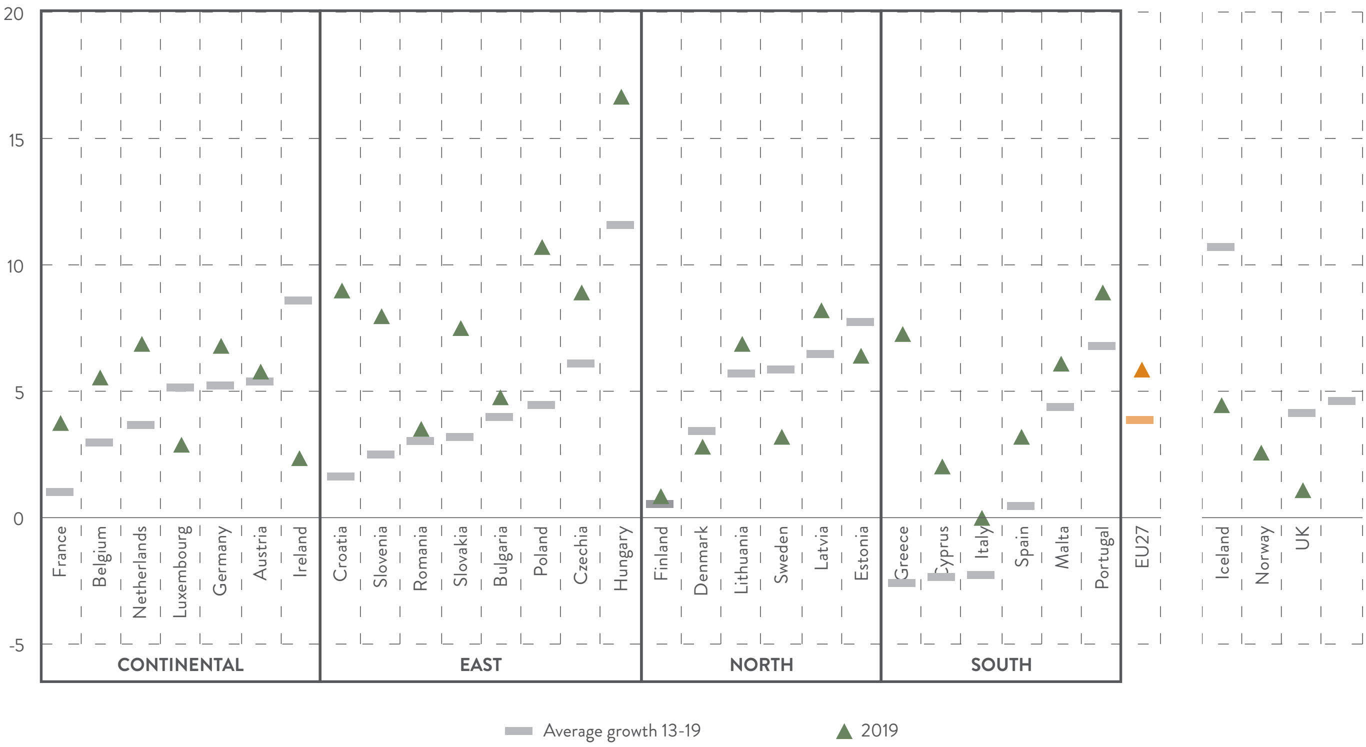
In countries especially in North Europe, such as Sweden, Estonia, Denmark and Ireland, but also In Iceland, Norway and the UK, growth in 2019 was below recent trend indicating houseprice deceleration

Noteworthy is the still very strong growth in Eastern Europe where, for example in Hungary house prices grew by over 16% in 2019, compared with an average rateof over 11% over the last seven years. Similar dynamics, though less high can also be seen in Poland, Czechia, Slovenia, Slovakia and Croatia. In continental Europe growth dynamics were less heterogeneous keeping both 2019 growth and their respective average quite close to each other.

Looking at the evolution of House Prices in the various European regions since 2008, the year of peak prices before the GFC, for 24 out of 27 countries of the EU (and Iceland and the UK) there was a trough in the house price index between 2008 and 2020. Austria, Sweden, Norway and Switzerland experienced continuous house price growth over the last 13 years, creating an accumulated increase of over 80% in Austria and Norway, 60% in Sweden and 30% in Switzerland. An exception is Italy, the only country with a price peak in this period in 2011 followed by slow decreases until 2019 when the figures of 2018 were confirmed. The trough in other countries in aggregate terms was as little as less than one percentage point in Belgium, Finland and Germany, a collapse of over 40% in Bulgaria and Lithuania and nearly 50% in Greece and Ireland. The timing of the trough differed across in Europe. The majority of recoveries started in 2013, as can be inferred by the change in direction of the EU aggregate figures, with others recovering since 2009. In Cyprus and Greece the recovery started respectively in 2016 and 2017 while in Italy prices have yet to start rising again.

Looking at continental Europe and Ireland, for most since the contraction in 2009 prices have risen in a liner fashion, Behind Austria the largest increase

CHART 6 | HOUSE PRICE INDEX GROWTH, 2013-2019 AVERAGE AND 2019 GROWTH



NOTE: the countries are grouped according to geographic regions and ordered within their reference region from the lowest to the highest average HPI growth.

Source: European Mortgage Federation

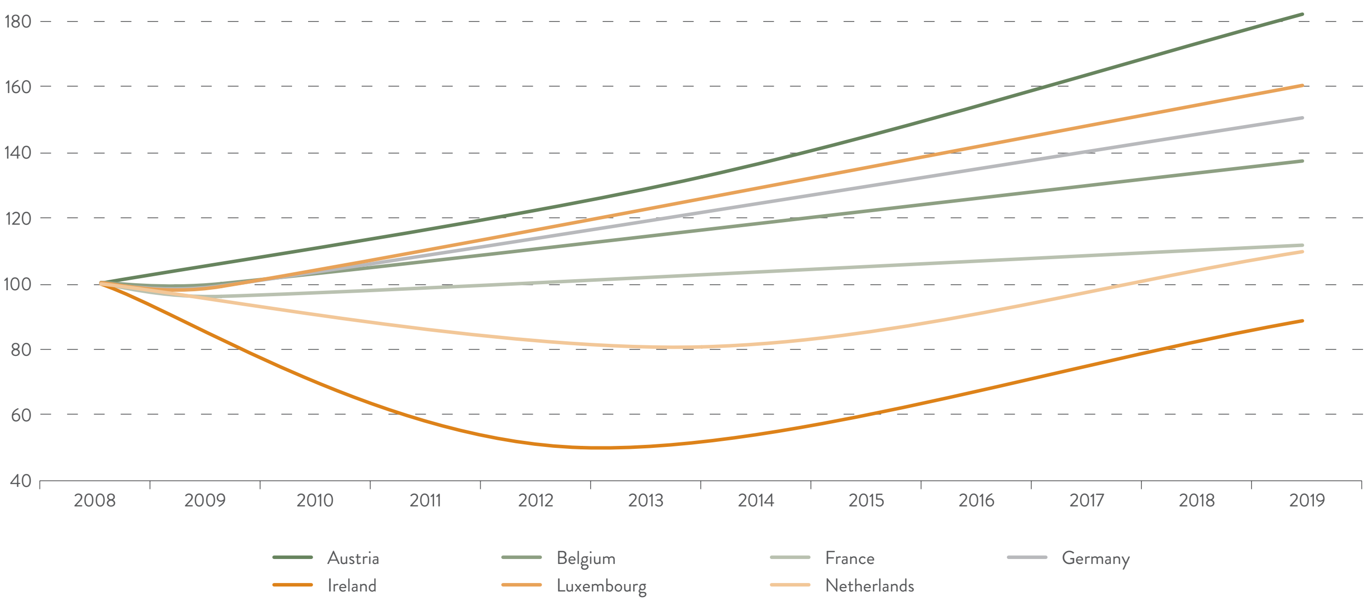
was in Luxembourg, Germany and Belgium, while in France prices increased by around 12%. Only in the Netherlands and Ireland did house prices experience a longer contraction, until 2013. In the Netherlands prices are now 10% above their 2008 levels. In Ireland they are still 11% below.

In South Europe, besides Italy, countries to see house price growth at different stages and from different troughs. Malta and Portugal were first to see recovered in respectively 2010 and 2013. Currently prices are 30% over their 2008 levels. Spain suffered a house price contraction until 2015 to nearly 30% down from the 2008 levels and by 2019 10% of this decline has been recovered.

Cyprus started recovery in 2016 and Greece in 2017 with the latter showing robust growth in the last year.

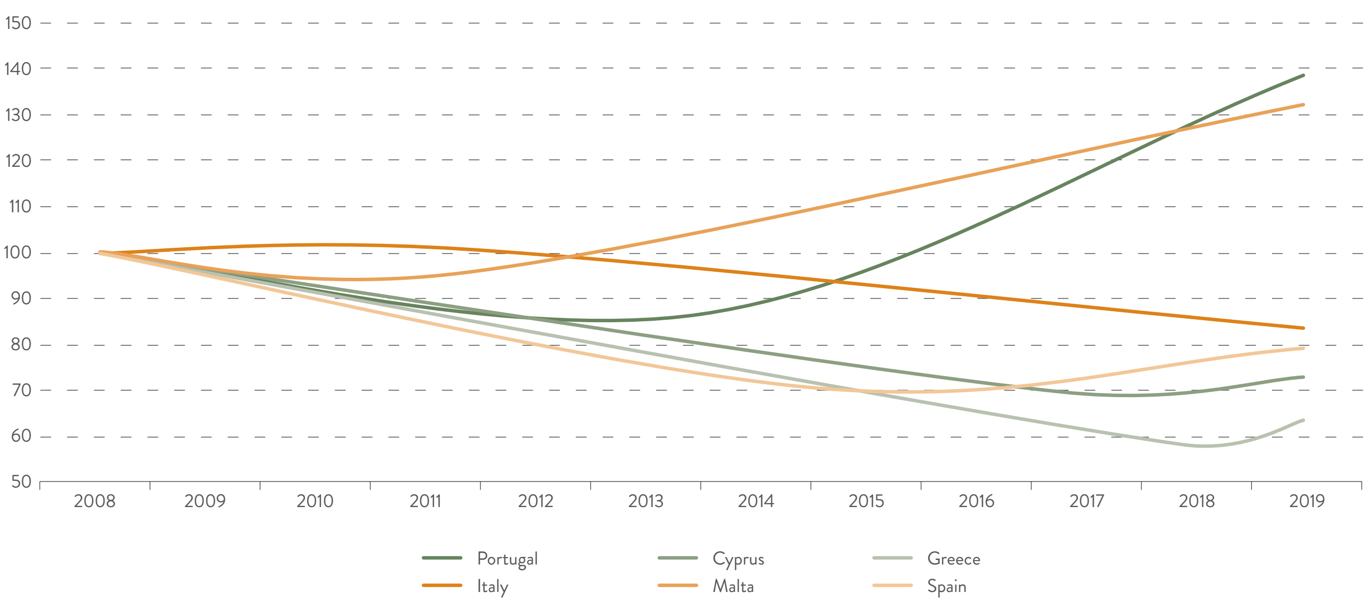
In East Europe, the trough of house prices occurred in 2012-2014 with a price contraction between less than 10% in Czechia up to more than 35% in Bulgaria. Also the recovery was heterogeneous with the majority reaching pre-2008 levels, except for Bulgaria, Romania and Croatia. It is worth highlighting the price evolution in Hungary which experienced a nearly 20% price contraction between 2008 and 2013 and closed the decade with an increase of over 77% with respect to 2008, marking the steepest price increase in the EU 27.

CHART 7A | HOUSE PRICES IN CONTINENTAL EUROPE



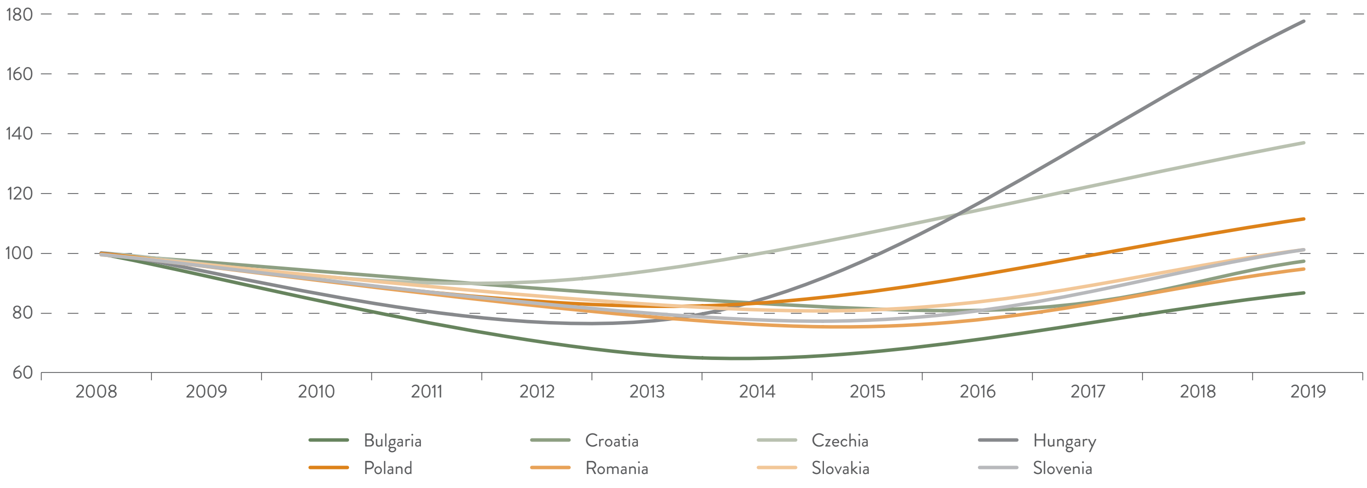
Source: European Mortgage Federation

CHART 7B | HOUSE PRICES IN SOUTH EUROPE



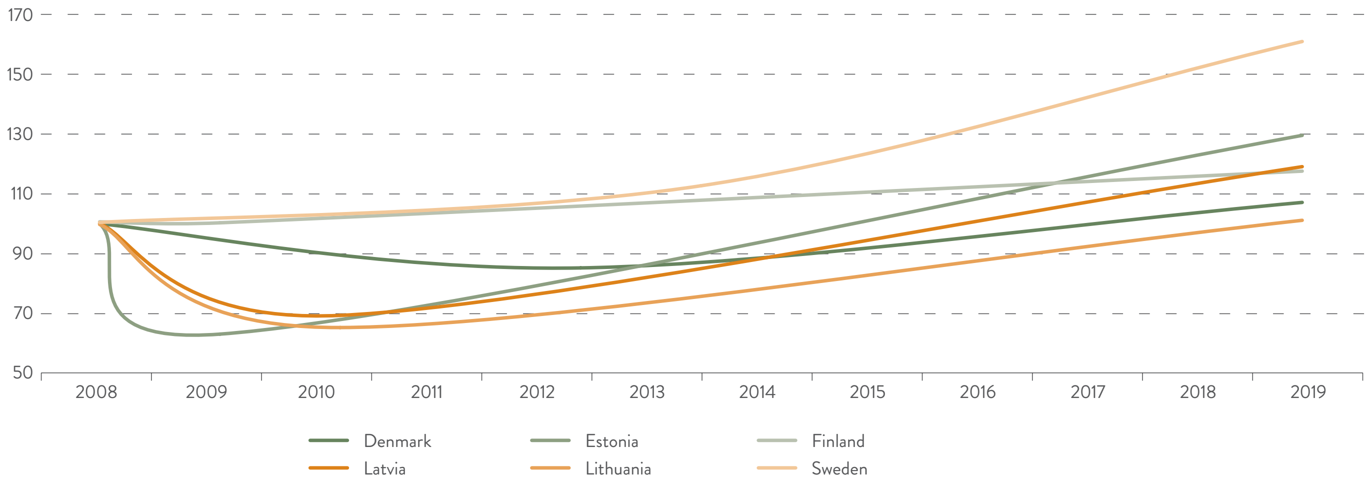
Source: European Mortgage Federation

CHART 7C | HOUSE PRICES IN EAST EUROPE



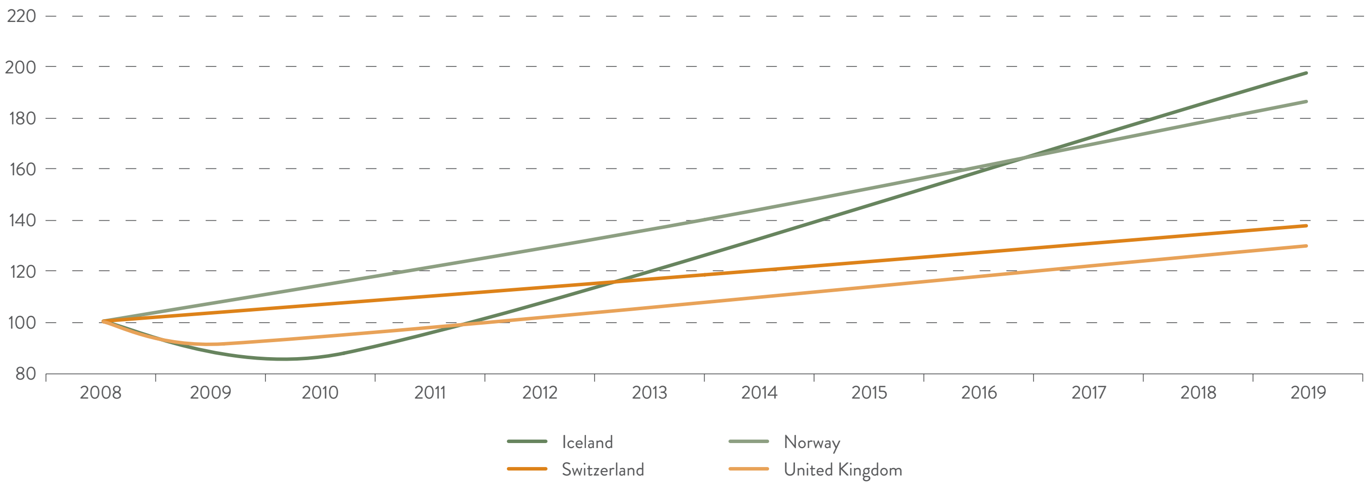
Source: European Mortgage Federation

CHART 7D | HOUSE PRICES IN NORTH EUROPE



Source: European Mortgage Federation

CHART 7E | HOUSE PRICES IN ICELAND, NORWAY, SWITZERLAND AND THE UK



Source: European Mortgage Federation

In North Europe the picture is mixed. In Sweden there was uninterrupted growth which accelerated in 2013 and is now slowing for a total increase of 60% since 2008. In Finland after a contraction of just 0.3% in 2009, house prices grew steadily, reaching an increase of nearly 18% with respect to 2008. The Baltics all experienced a severe contraction in the first period (although less so in Lithuania) and growth since then. Denmark is in between with a trough in 2012 and a moderate recovery since then closing the decade with in aggregate 7% higher house prices than in 2008.

A similar picture to that in Sweden can also be seen in Norway and Switzerland, with house prices in Norway increasing by over 80% in 13 years whereas in Switzerland prices increased by 40%.

In the UK after an almost 10% contraction in 2009 there was an increase in prices until 2019 when they were 30% up on levels in 2008.

Remarkable evolution was seen on Iceland where after a nearly 20% contraction by 2010 prices nearly doubled by 2019 with respect to 2008.

Looking at the data received through the latest Quarterly Review on Q2 2020 in the majority of cases the dynamic of House Prices has not seen a reduction in the first half of 2020 where the trend of the previous quarters has been confirmed.

HOUSE PRICES IN THE CITIES

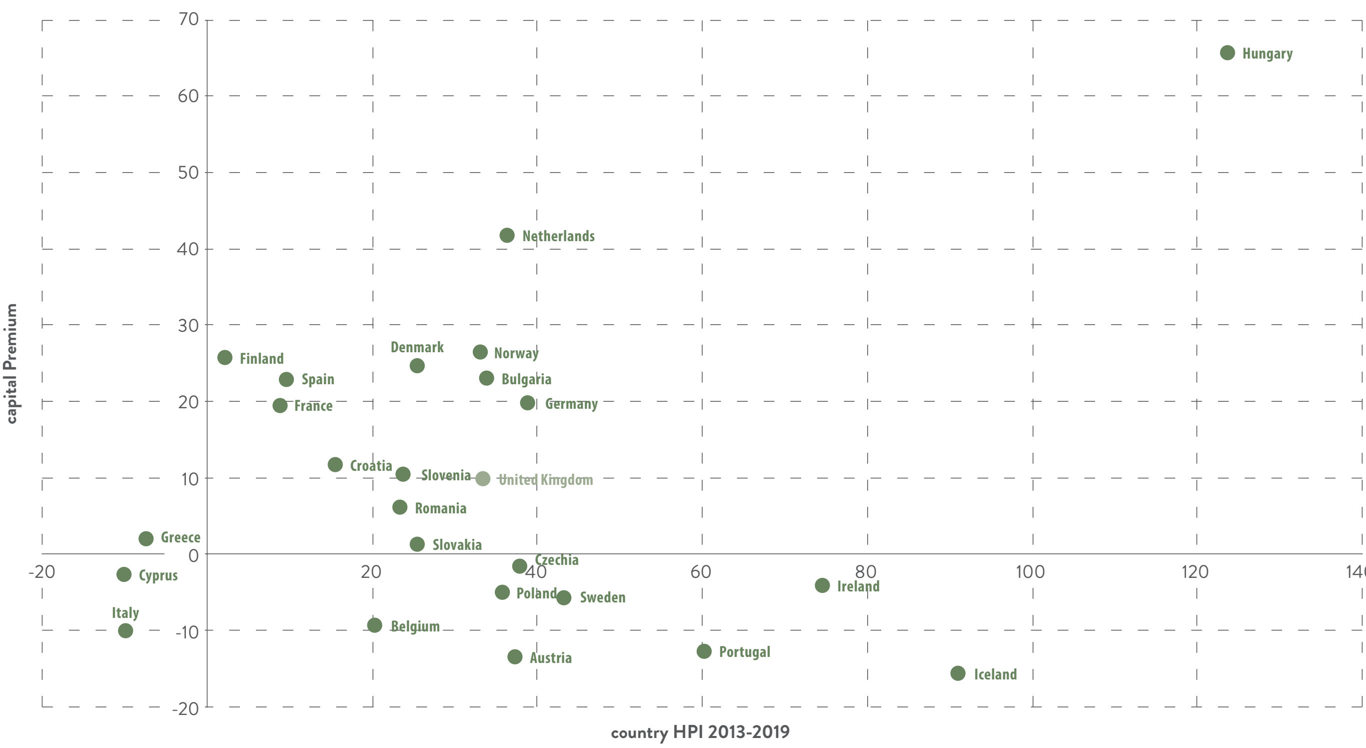
As with country-wide house prices, capital cities experienced an aggregate house prices contraction until 2013 and recovery thereafter. Since 2008 in the majority of countries the trough of general house prices was in the same year as that for prices in the capital. In aggregate terms prices in capitals have grown by nearly 8.6% more than the country as a whole over the last seven years, increasing by 41.5% relative 2013. However, individual countries show different pictures. In the majority of countries prices in the capital city grew between 10% and 30% more than the country as a whole.

In Finland, Spain and France, nationwide house prices did not increase significantly since 2013, while their capitals saw 20% or more price growth.

In other countries such as Germany, Norway, Denmark and Bulgaria, the whole country had price increases of 20-30%, with a similar additional growth in the capitals. This was even more pronounced in the Netherlands, where Amsterdam grew by over 40% more than the national average. The EU country with the greatest house price inflation in general and the greatest additional growth in the capital – with an additional 65% is Hungary. There were some countries where the prices in the capital grew more slowly: in Belgium for example national prices rose by 20%, but only 10% in Brussels. Prices in Vienna grew by 13% less than Austria as a whole, in Reykjavik house prices similarly underperformed by 15%.

In Cyprus and Italy both the country and the capital city had lower house prices in 2019 than in 2013. Rome saw house prices fall nearly 20% over this period including over 2% last year. In Milan, on the other hand house prices have started to rise slowly with a net 3% growth since 2013. Finally in Greece in Athens house prices, though still lower with respect to 2013, showed a robust increase of over 10% last year.

CHART 8 | CAPITAL HOUSE PRICE EVOLUTION WITH RESPECT TO THEIR COUNTRIES, 2013-2019



NOTE: For Germany the aggregated House Price of the seven largest German cities has been considered.

Source: Eurostat

AFFORDABILITY AND LIVEABILITY OF DWELLINGS

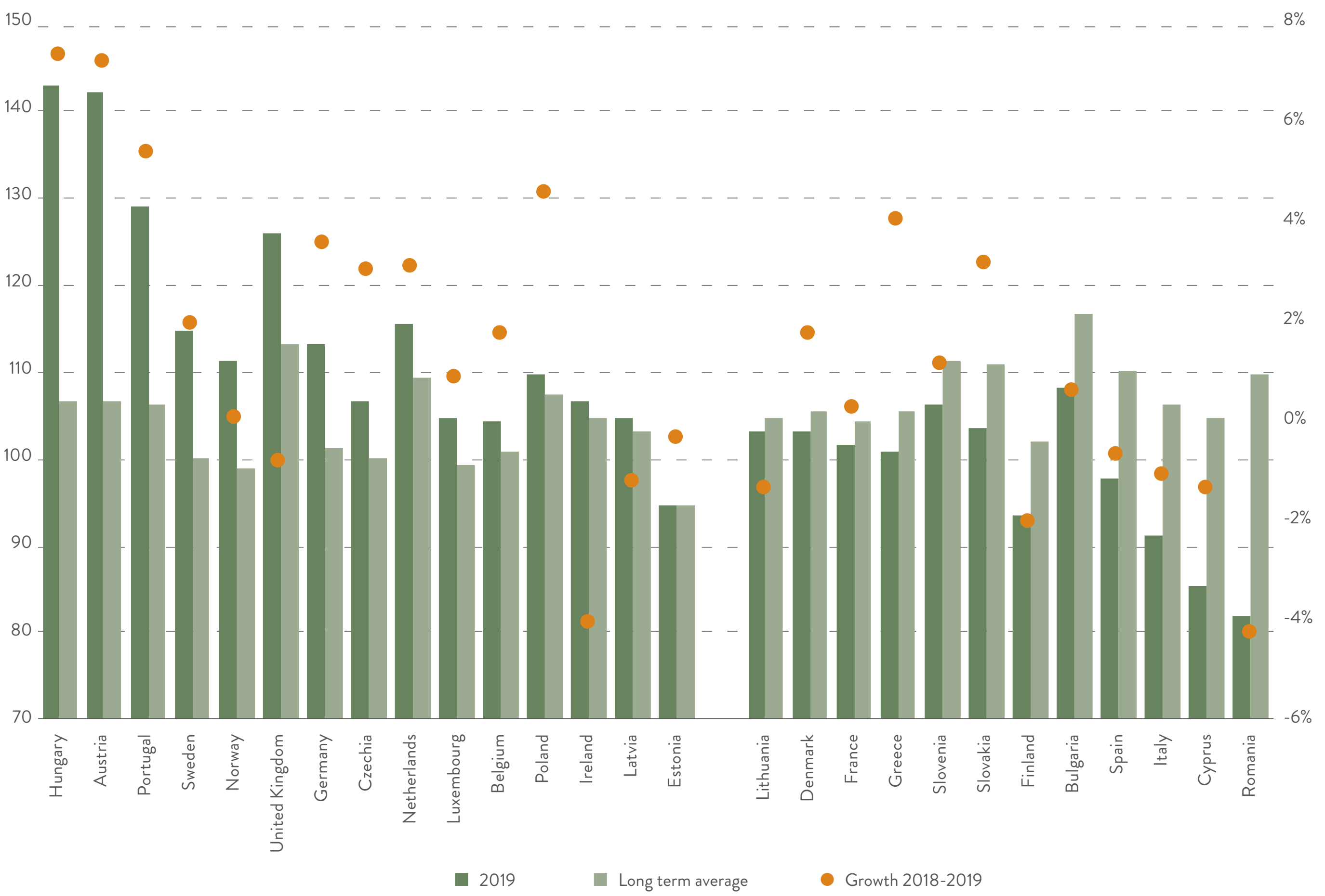
The access to affordable accommodation was declared by the European Commission a fundamental need and right in 2010 as part of the European framework for social and territorial cohesion. However, affordability has worsened over the last decade and the policies implemented have not totally succeeded in reversing this the trend.

With house prices having grown significantly in aggregate in 2019 the affordability index – calculated as the ratio of house prices and disposable income – has seen a deterioration in 17 of the 27 countries with 15 of those now less affordable than their long term average over the last 13 years.

In Chart 9 the countries are ordered according to how much affordability has deteriorated relative to the long-term average. The most severe deterioration was in Hungary, Austria and Portugal where in one year house prices increased by between 5% and 7% relative to disposable income, thus increasing significantly the cost of housing for many households. In these three countries affordability is between 20% and 35% worse than the long term average. In other countries such as Germany, Czechia, the Netherlands and Poland in 2019 house prices increased by over 3% relative to disposable income, reaching in 2019 a 10% affordability deterioration with respect to the long term average. On the other end of the spectrum in Spain, Italy, Cyprus and Romania in 2019 the index was between 12% and 28% lower than the long term average as disposable incomes increased more than house prices in 2019. In Ireland and Romania the affordability index decreased by over 4% showing a robust increase in disposable income more than offsetting house price increases of respectively 2.3% and 3.5%.

Linked to this topic is the burden of housing costs differs significantly by country. It is expected that in 2019 9.3% of the EU population spent 40% or more of their household disposable income on housing, a slight improvement of 1 bps relative to the previous year continuing a positive trend since 2014 when it was 11.6% of the population. However, as shown in Chart 10 differences between countries are significant, on the one hand over 36% of the Greek population face such a burden , whereas in Cyprus it was only 2.3%. In general, except for Latvia, Lithuania and Malta, homeowners with mortgage loan are less likely face an excess cost of housing than the rest of the population, In countries such as Belgium, France and Luxembourg homeowners with a mortgage were much less affected than the general population. In several countries in Central and Eastern Europe and Germany mortgage holders facing a cost overburden were 60% lower than the average for the whole population.

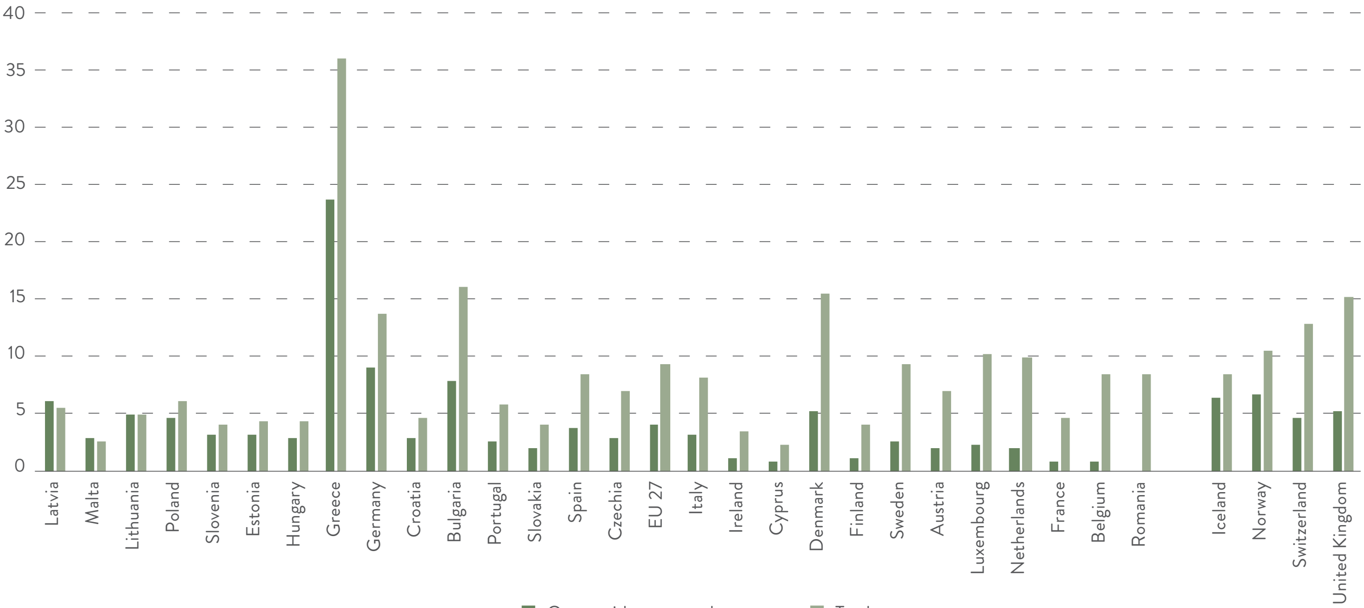
CHART 9 | HOUSE AFFORDABILITY IN 2019 COMPARED TO LONG-TERM AVERAGE



NOTE: Note: The countries are ordered according to the distance between the affordability index of 2019 and its long term average (2000-2019). The index is constructed as a ratio between the HPI and the current gross disposable income, which are found in Table 21 of the Statistical Annex.

Source: European Mortgage Federation

CHART 10 | HOUSING COST OVERBURDEN OF TOTAL POPULATION AND OF MORTGAGE HOLDERS, IN PERCENT



NOTES: (1) The countries are ordered according to the relative difference between mortgage holders and the total population facing cost overburden, defined as housing-related expenditure surpassing 40% of the household income). (2) For the following countries the latest available data of 2018 has been considered: Ireland, France, Italy, Slovakia, UK, Iceland (2017), Switzerland.

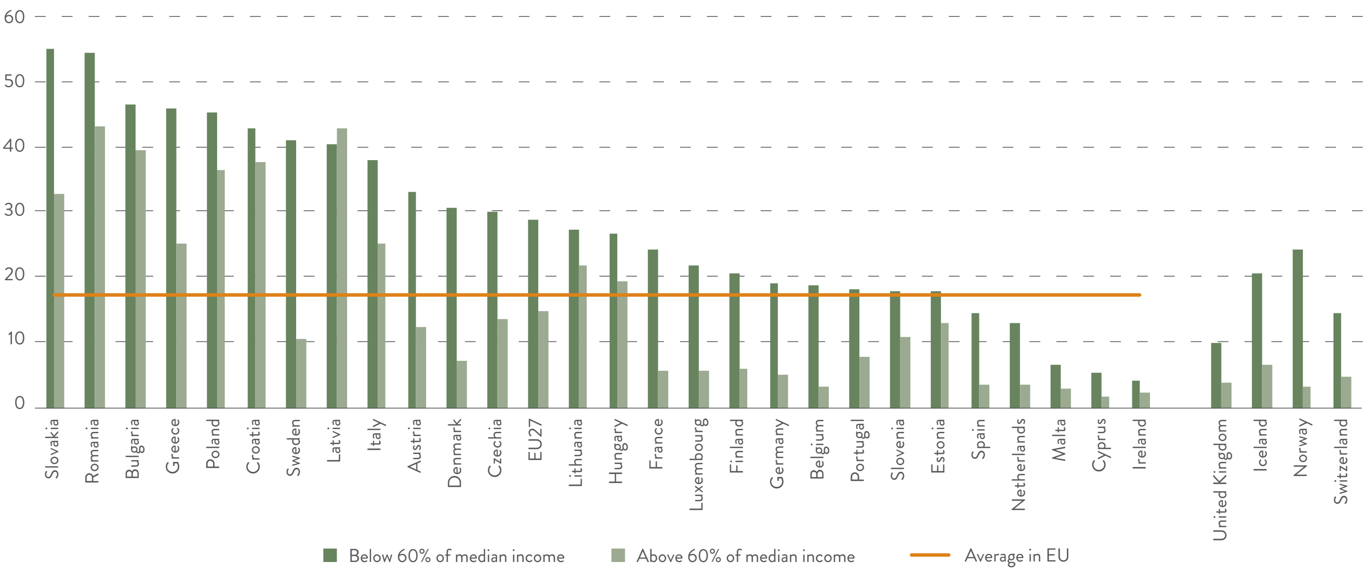
Source: Eurostat

An important consideration especially during the COVID-19 pandemic is the share of population in Europe living in overcrowded dwellings In the EU on average over 17% of the population live in crowded apartments, especially in East Europe. In continental Europe and in Scandinavia there are significant differences in overcrowding by wealth while in South Europe and Ireland, overcrowding is not such a significant problem except for in Italy, where nearly 40% of poorer households are in overcrowding and Portugal where it is around 19%.

HOUSING SUPPLY DEVELOPMENTS

In 2019 construction investment grew for the sixth consecutive year, the longest growth series since 2000, expanding by 3.2%. The share of dwelling construction as a percentage of GDP increased to 5.3% at EU from 5.1% in 2018. Notwithstanding the positive progression this is still 1.3 pps below the 6.4% peak in 2007.

CHART 11 | OVERCROWDING IN DWELLINGS ACCORDING TO POVERTY STATUS (DEFINED AS 60% OF THE MEDIAN INCOME), IN PERCENT OF POPULATION

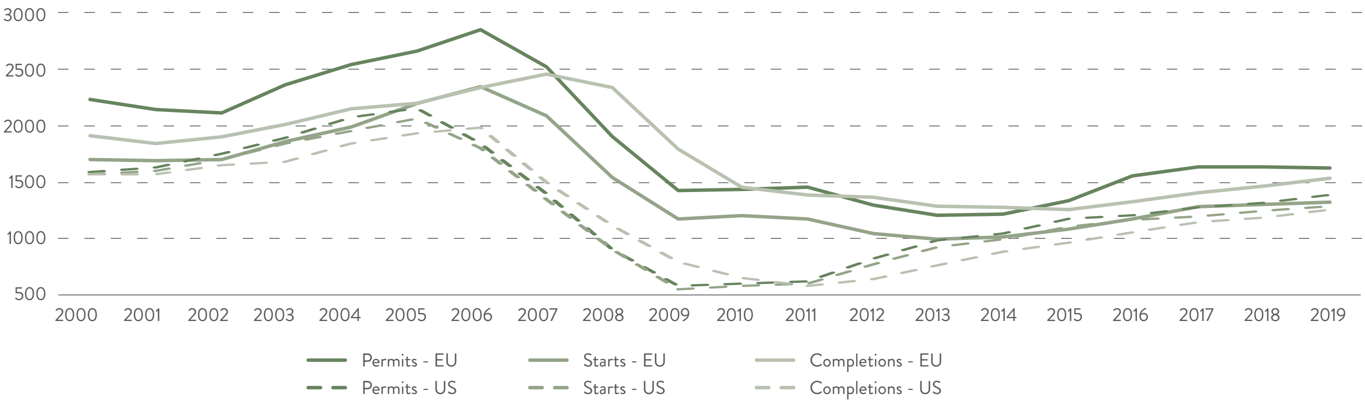


NOTES: For the following countries the latest available data of 2018 has been taken: Germany, Ireland, France, Italy, Luxembourg, Slovakia, UK, Iceland (2017), Norway, Switzerland.

Source: Eurostat

As with house prices, housing supply – specifically new housing permits – experienced an EU level trough in 2013 with subsequently a slow, but steady recovery, with 2019 continuing the trend of the previous couple of years, therefore marking a 35% increase relative to 2013. Ongoing relatively low mortgage interest rates coupled with continued demand for housing are counterbalanced especially in cities by very high housing prices, labour shortages effecting construction capacity and the scarcity of buildable land due to strict zoning regulations and a lack of incentives for landowners to start housing developments. The result of these factors provides an explanation of the relatively flat growth in supply over the last past years, compared to the US as can be seen in chart 12.

CHART 12 | EVOLUTION OF CONSTRUCTION INDICATORS IN THE EU AND THE US, IN THOUSANDS RESIDENTIAL UNITS



Source: European Mortgage Federation

As with the House Price Index, the aggregate number of new permits reached a low in 2013, but again this was uneven between Member States. In 2019 the majority of Member States saw building permits decrease or remain constant. The aggregate contains significant national differences.

In Bulgaria, Italy and Sweden the number of permits fell in 2019 to a level lower than the average of the last seven years.

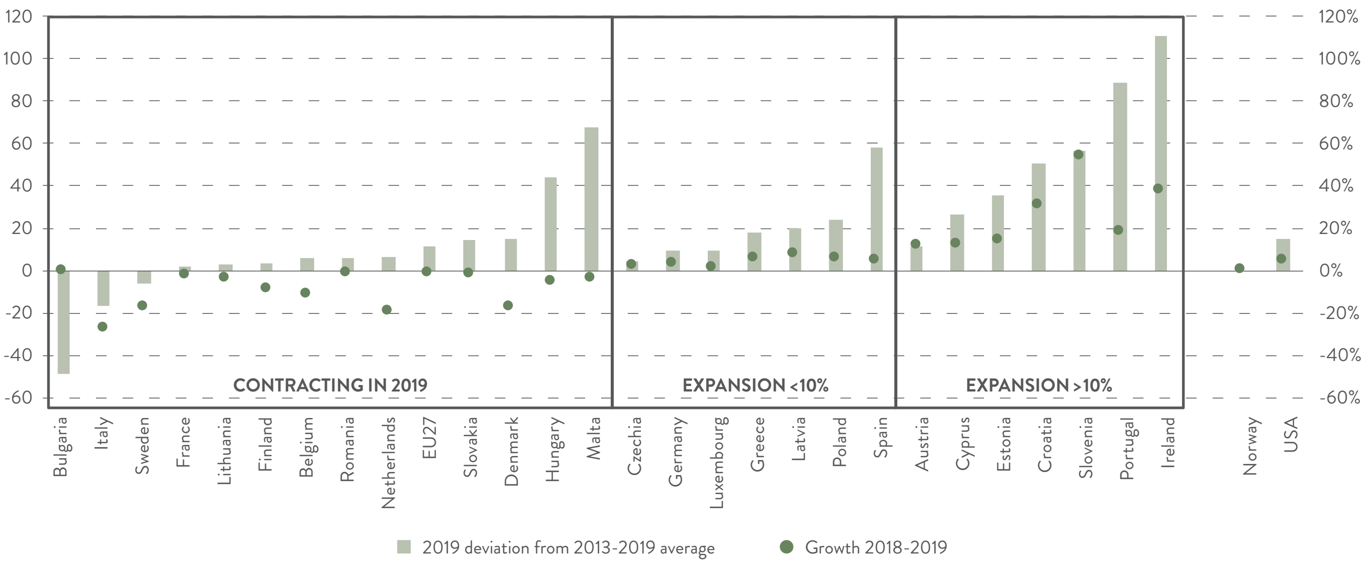
Other countries in which the number of permits fell were mostly Nordic countries – Sweden, Finland, Denmark and Lithuania where permits followed the slowdown in house prices.

Interestingly new building permits in Hungary fell despite the high house price growth.

Countries with a moderate expansion in permits – up to 10% – all experienced a higher level than the average of 2013-2019. Among these in Czechia the permit levels are in line with the average whereas in Spain the level in 2019 it 60% higher, an increase of 5% in 2019.

In the countries with an increase of more than 10%, the level of permits in 2019 was higher than the average for 2013 to 2019 and in the case of Ireland it was more than double, although this is still 63% below the all-time high of 2006.

CHART 13 | BUILDING PERMITS EVOLUTION 2013-2019

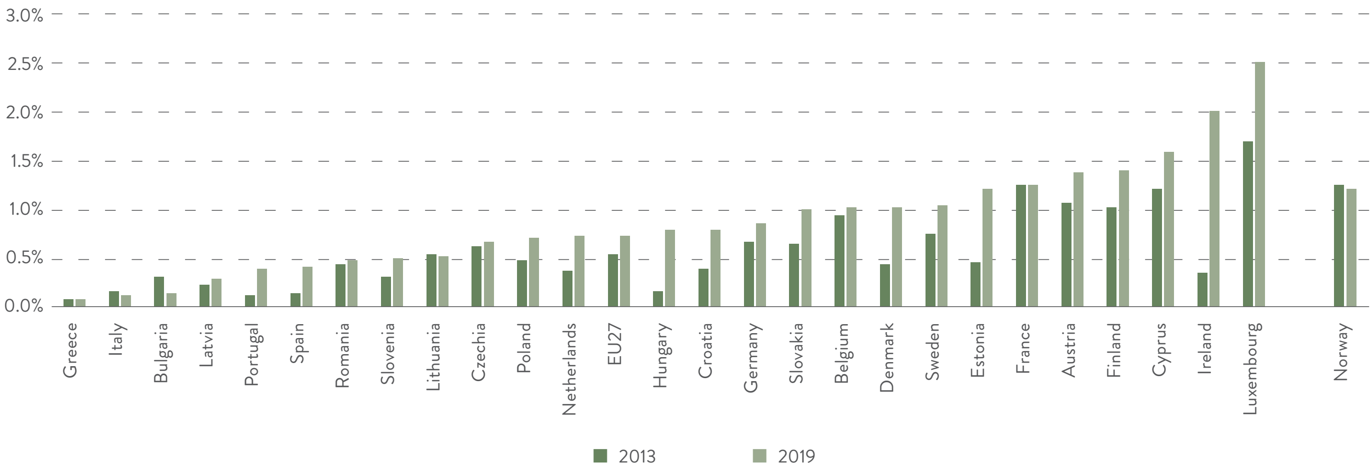


Source: European Mortgage Federation

Similarly in Portugal where permits grew by 20% in 2019 reaching 90% more than the reference average, but still 20% below the peak in 2000.

Overall there has been an over 30% increase in permits in the EU since 2013, the number of new permits has now reached 0.7% of the total EU dwelling stock of nearly 224 mn dwellings, but still below the 1% of total seen each year between 2000 and 2007. Except for Italy, Bulgaria and Norway this share increased throughout our sample in 2019 with respect to 2013. In 2019 in Ireland and Hungary more than four times of permits have been issued with respect to 2013, marking for both a return towards values seen at the beginning of the 2000s.

CHART 14 | BUILDING PERMITS AS A PERCENTAGE OF DWELLING STOCKS, IN PERCENT

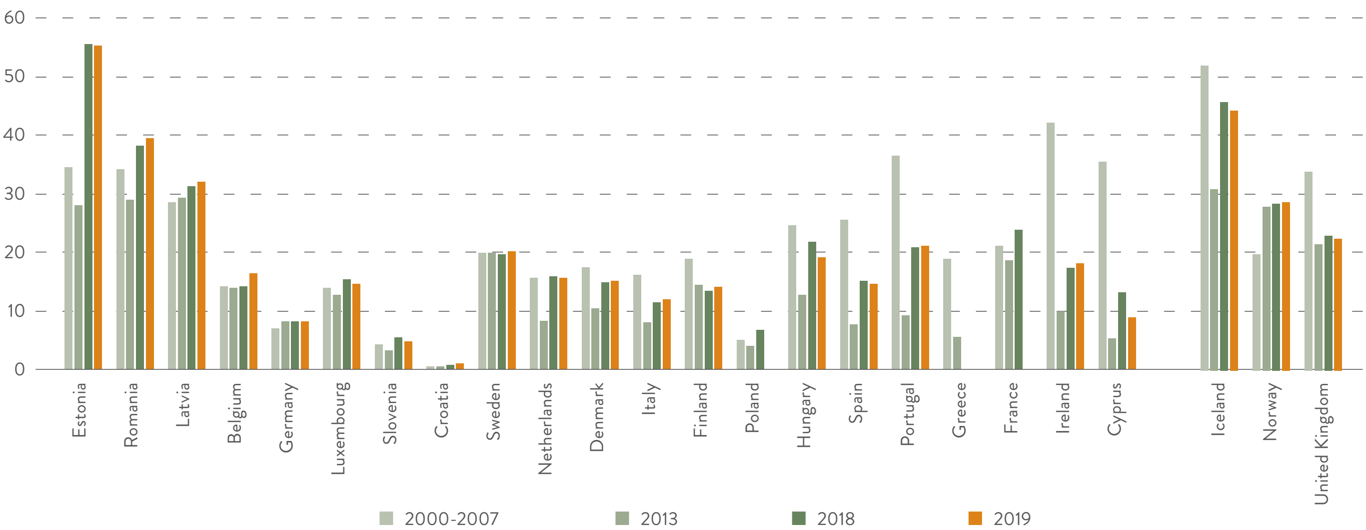


NOTE: The latest available figures on total dwelling stocks have been considered for this chart. More information can be found in Table 16 of the Statistical Annex.

Source: European Mortgage Federation

The number of residential transactions, for both new and existing property, continued to expand for the sixth year in a row increasing by nearly 1% in the year by 38% in aggregate terms since 2013. In Chart 15 the various countries are ordered according to the change in the number of transactions between the years 2000-2007 and 2019. The countries with the highest increase are the Baltics, Romania and Norway. In Estonia there was a remarkable increase of over 20 pps in 2018 compared with prior to the GFC, although in 2019 the level was broadly unchanged. In Belgian transactions remained stable throughout 2018 but then increased by over 14% in 2019 – the largest expansion in the sample, whereas the Netherlands and Denmark, after a trough in 2013 reached their respective pre-crisis levels of transaction. In the South the transaction levels increased from their 2013 levels, but have not yet reached the pre-crisis levels.

CHART 15 | TRANSACTION EVERY 1,000 ADULTS



NOTE: The countries have been ordered according to the difference between the transition figures of 2019 and the 2000-2007 average.

Source: European Mortgage Federation

MORTGAGE MARKET

SETTING THE SCENE – HOMEOWNERSHIP AND MORTGAGE INDEBTEDNESS

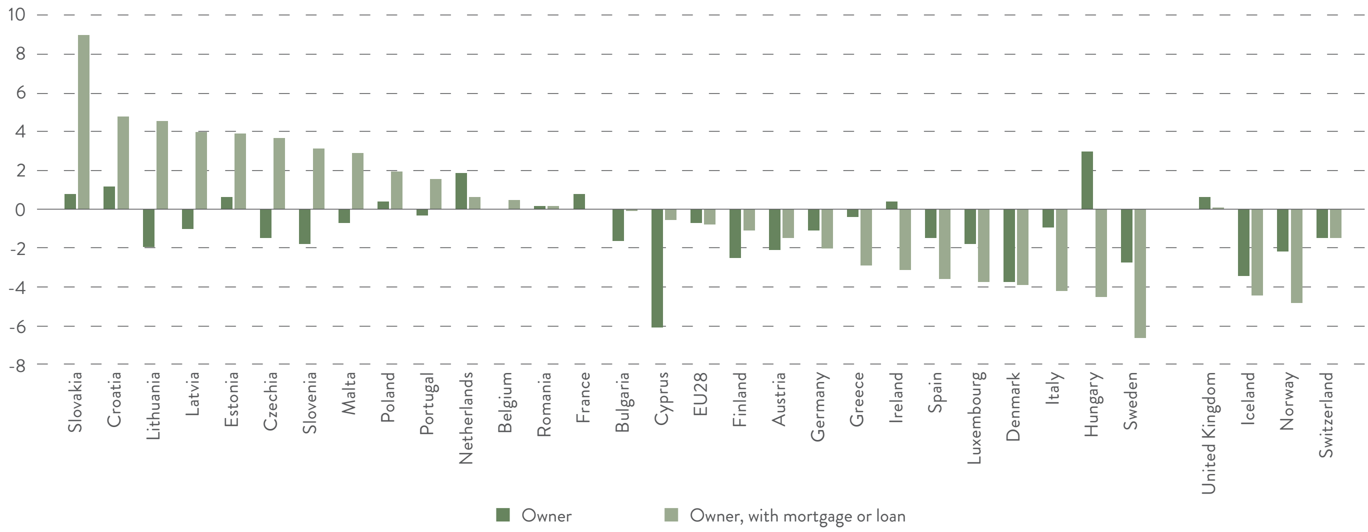
The share of Europeans owning their home remained stable at 69.3% in 2018, the latest data we have information from all countries, which is a slight decrease from the 70% in 2013. Similarly homeowners who have a mortgage or other loan on their homes decreased from 27.3% in 2013 to 26.5% in 2018. As seen with other variables these averages cover a wide range in individual countries. On the one hand especially countries in East Europe saw a surge both in the percentage of the population owning a home and having a mortgage, with notable exception of Hungary where homeownership increased, but at the same time mortgage holders decreased by over 4 pps since 2013.

Among the founding members of the EU only in the Netherlands the share of both homeownership and mortgage holders increase, while in Belgium only mortgage holders increased whereas in France only homeowners increased and in Germany, Italy and Luxembourg the share of both homeownership and mortgage holders have decreased since 2013.

This evolution needs to be read in context with the differentiated homeownership and mortgage holder distribution in Europe which as can be seen in the following chart presents very different situations.

On the one hand especially in East Europe, many countries have very high homeownership levels but the mortgage markets are still relatively small, which largely explains the significant increase in the proportion of mortgage

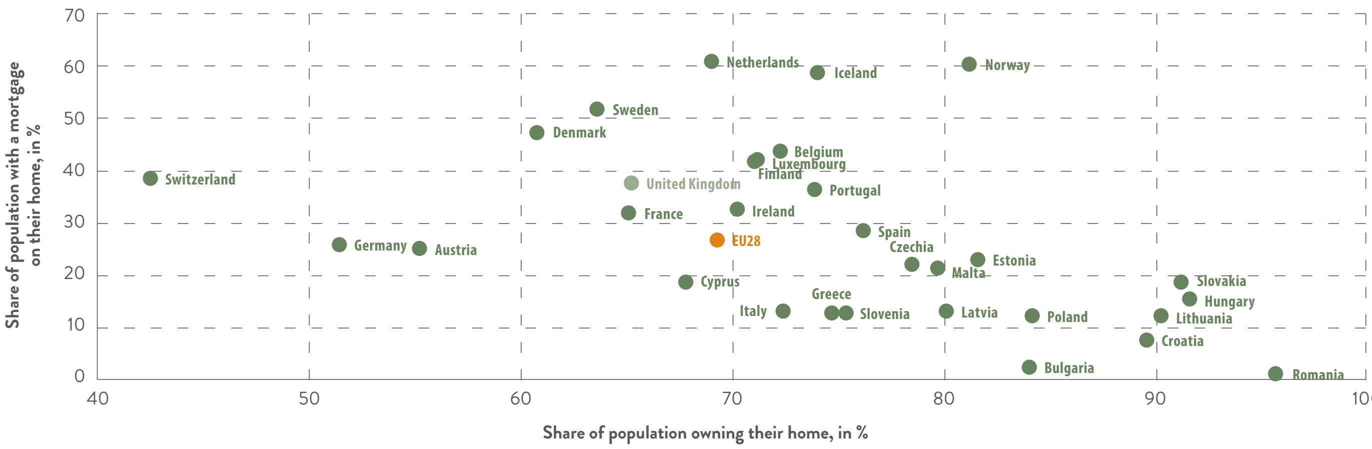
CHART 16 | EVOLUTION OF HOMEOWNERSHIP AND MORTGAGE HOLDERS 2013-2019*, IN PERCENTAGE POINTS



NOTE: The homeownership data of a series of countries refers to 2018 their latest data. More information can be found on Table 11 of the Statistical Annex.

Source: Eurostat, European Mortgage Federation

CHART 17 | DISTRIBUTION OF HOMEOWNERS AND MORTGAGE HOLDERS IN 2019



NOTE: The homeownership data of a series of countries refers to 2018 their latest data. More information can be found on Table 11 of the Statistical Annex.

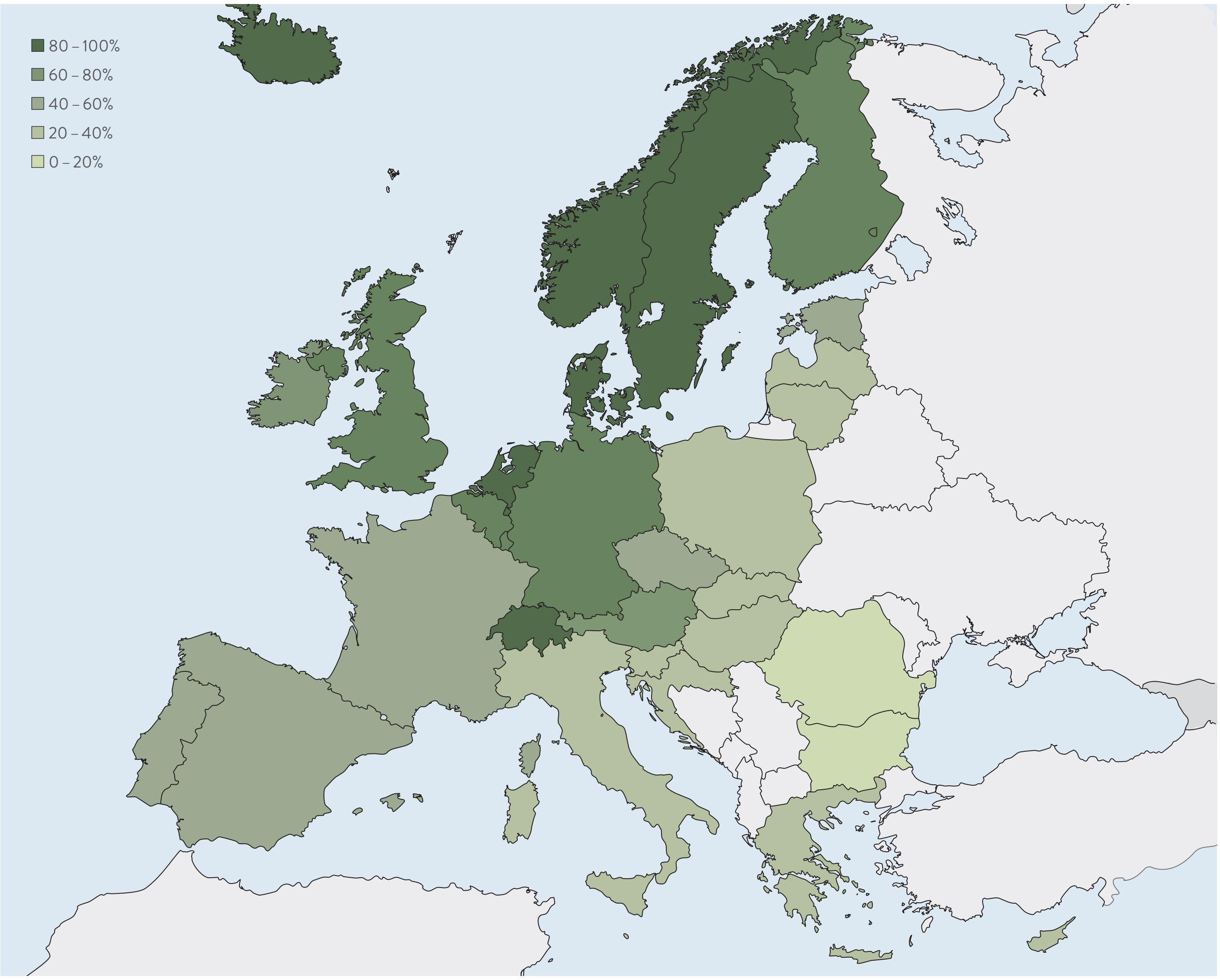
Source: European Mortgage Federation, Eurostat borrowers over the last seven years starting as it did from a comparatively small base. Southern European countries have the next smallest share of mortgages, but have more home owners than the EU average. Continental Europe, Ireland and the UK have less homeowners but more mortgage holders than their Southern and Eastern neighbours and the Nordic countries together with the Netherlands have the highest shares of mortgage holders with as many homeowners as the EU average.

On average in Europe 38% of homeowners – i.e. 27% of the population – has a mortgage and on average every adult European has EUR 18,000 of mortgage debt, or EUR 61,000 when only mortgage holders are taken into consideration. This is equivalent to 44.1% of the EU27 GDP, an increase of 1 bps with respect to the previous year, reversing a deleveraging trend which started in 2012. It is interesting to note that in Switzerland, which has the lowest homeownership rate in Europe, over 90% of homeowners have a mortgage equal to a very high EUR 140,000 each. In the EU Luxembourg has the most mortgage debt per capita at nearly EUR 72,000. In the Netherlands, where 87% of home owners are also mortgage borrowers the average mortgage per capita is EUR 52,000. Denmark, Sweden and Norway with respectively EUR 55,700, 52,400 and 71,000 are the only other European countries with more than EUR 50,000 of mortgages outstanding per capita. At the other side of the spectrum Bulgaria and Romania have around EUR 1,100 per capita of mortgages outstanding and, together with Croatia, less than 10% of home owners have a mortgage on their home. As can be seen in chart 18 mortgages are more present for homeowners in Continental and Northern Europe, whereas in the South and especially in East Europe it is a relatively small share of population.

RESIDENTIAL MORTGAGE LENDING

The mortgage market in the EU27 and the UK increased to EUR 7.6 tn outstanding, an increase of 4.9%, the largest aggregate increase since 2008. Breaking this down by currency, outstandings in the Euro area increased by 3.8%, the largest increase since 2008. The non-Euro area not considering the UK increased by 4.3% when considering their respective mortgage market converted in EUR terms. Among the exchange rate evolution in 2019 with respect to 2018 the depreciation of Swedish Krona of 1.87% with an average of 3.26% over the last five years had the most significant effect on this figure, counterbalanced in part by the appreciation of

CHART 18 | SHARE OF MORTGAGE HOLDERS AMONG HOMEOWNERS

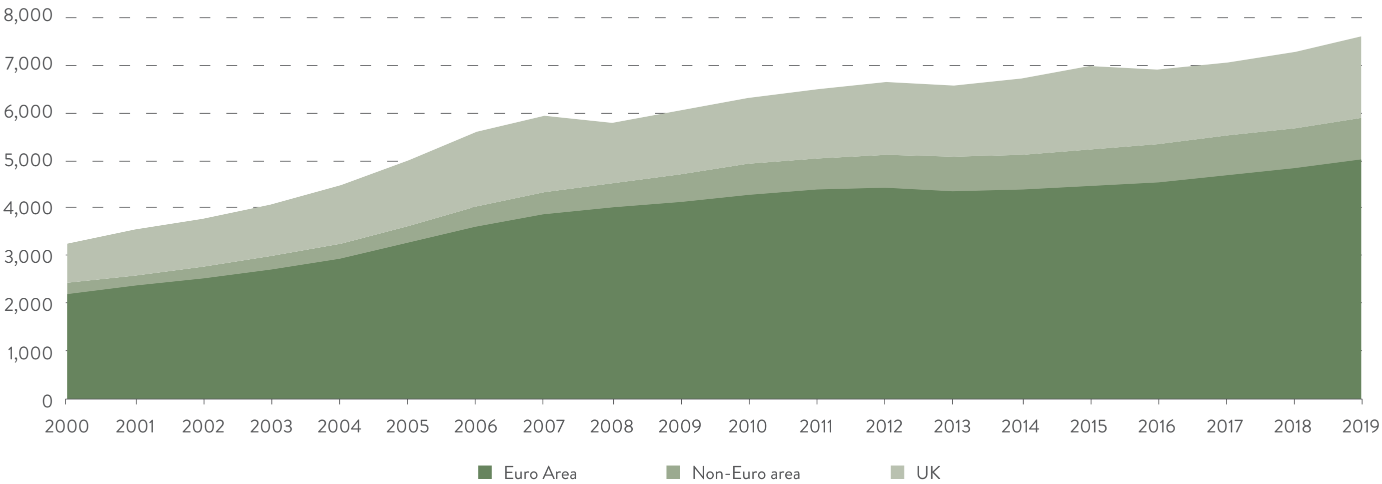


Source: Eurostat, European Mortgage Federation the Polish Zloty and the Czech Coruna of over 1% which together affect a market which is a third of the Swedish one. In the UK the growth was 8.4% (in euro terms, partly explained by the 5% appreciation of sterling in 2019).

Continental and East Europe had the steadiest growth in outstanding mortgages since 2013, followed by the Nordic countries. In continental Europe especially the ongoing growth in France and Germany (respectively 6.8% and 5.8%) and the growth of 6.8% in Belgium showed the strong demand for mortgage loans. The UK, except for the contraction in EUR terms (not when looking at the GBP values) in 2016 and 2017, confirmed the growth seen in 2018 also in 2019. In the South of Europe since 2012 the value of outstanding mortgages has fallen, principally due to declines in Greece and in Spain where redemptions outpaced new issuance. Some of the largest increases in mortgages outstanding were in the East corresponding to the strength seen in house prices and housing supply. The most rapidly growing market in the EU is Bulgaria with over 35% expansion since 2010, followed by Czechia with over 10% y-o-y growth. It is noteworthy that Hungary, with the highest house price increase in 2019 saw no material change in total mortgages outstanding.

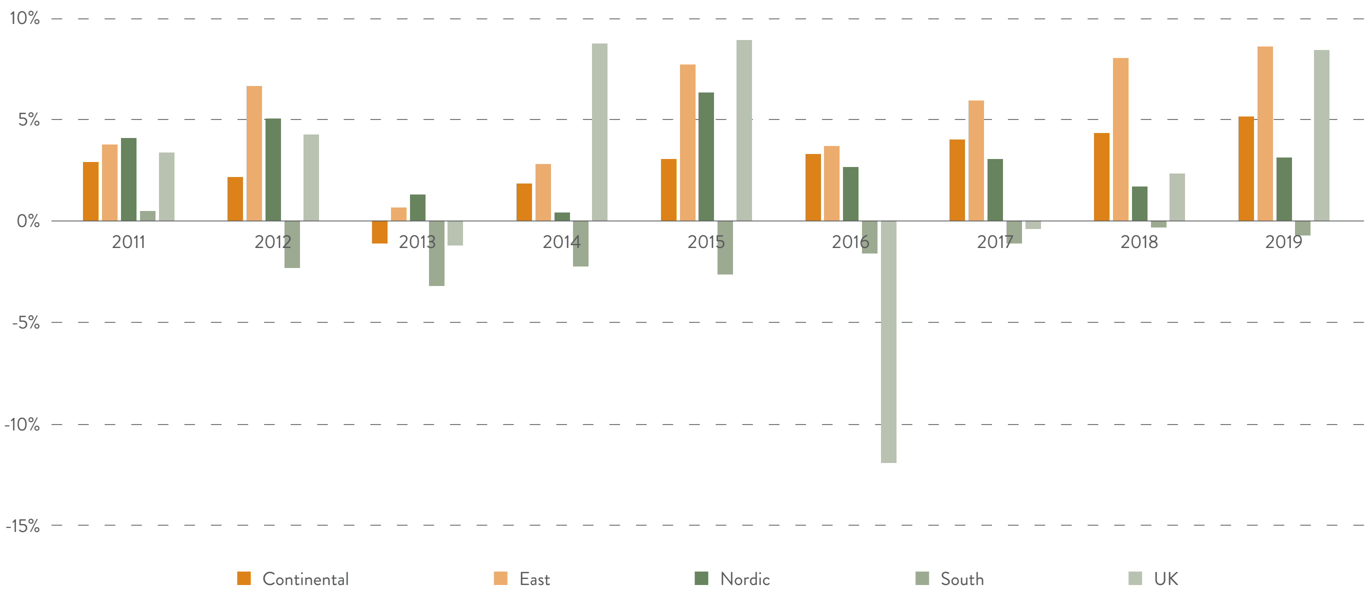
Looking at the data to Q2 2020 mortgages outstanding have not changed significantly compared to the previous quarter, the effect of the COVID-19 pandemic has not yet affected the market size.

CHART 19 | OUTSTANDING RESIDENTIAL MORTGAGE LOANS IN EU27 AND UK, IN EUR BN



Source: European Mortgage Federation

CHART 20 | OUTSTANDING MORTGAGE MARKET YEAR-ON-YEAR EVOLUTION DIVIDED IN EU REGIONS (CALCULATIONS BASED IN EUR TERMS)



Source: European Mortgage Federation

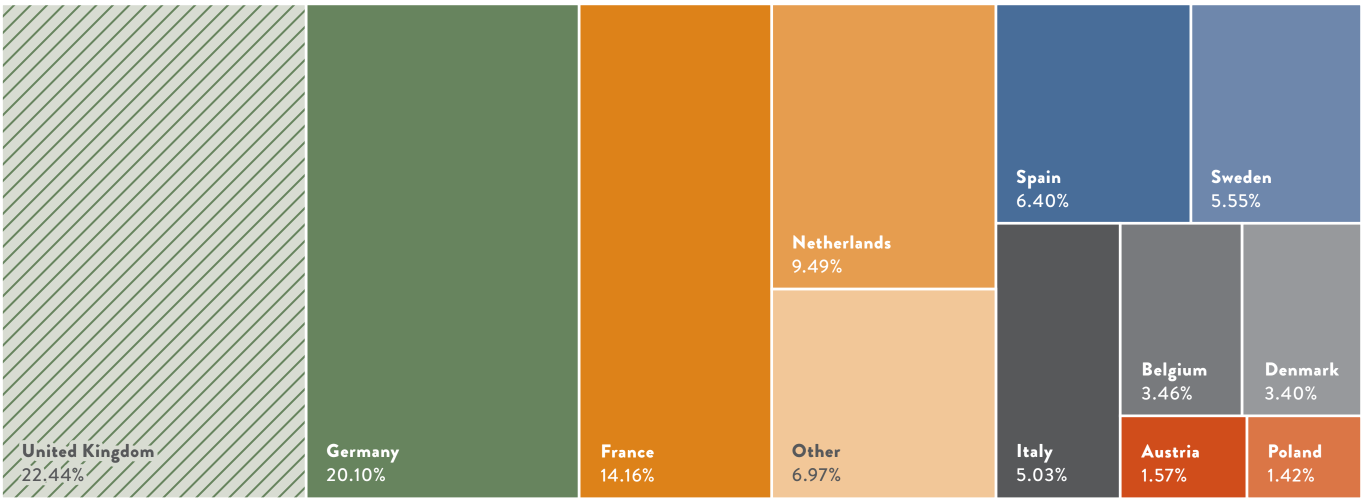
Overall in the EU27 and the UK, the UK continues to be the largest mortgage market with over 22% share followed by Germany, France and the Netherlands. Spain has the largest mortgage market in the South, which is roughly as large as the 17 smallest mortgage markets of the EU. Sweden and Poland are the largest markets respectively in the Nordics and in the East.

Gross lending grew by over 12% in the EU27 in 2019, reaching nearly EUR 1 tn. This surpassed the previous peak reached in 2006, thus completing the recovery in from GFC which had its trough around 2013, as with house prices.

In general gross lending dynamics follow those House Prices. In Continental Europe Germany, Luxembourg, Austria and Belgium did not see any material reduction in gross lending over the last 13 years, their last year's growth rate was around 10% with Belgium registering over 25% growth.

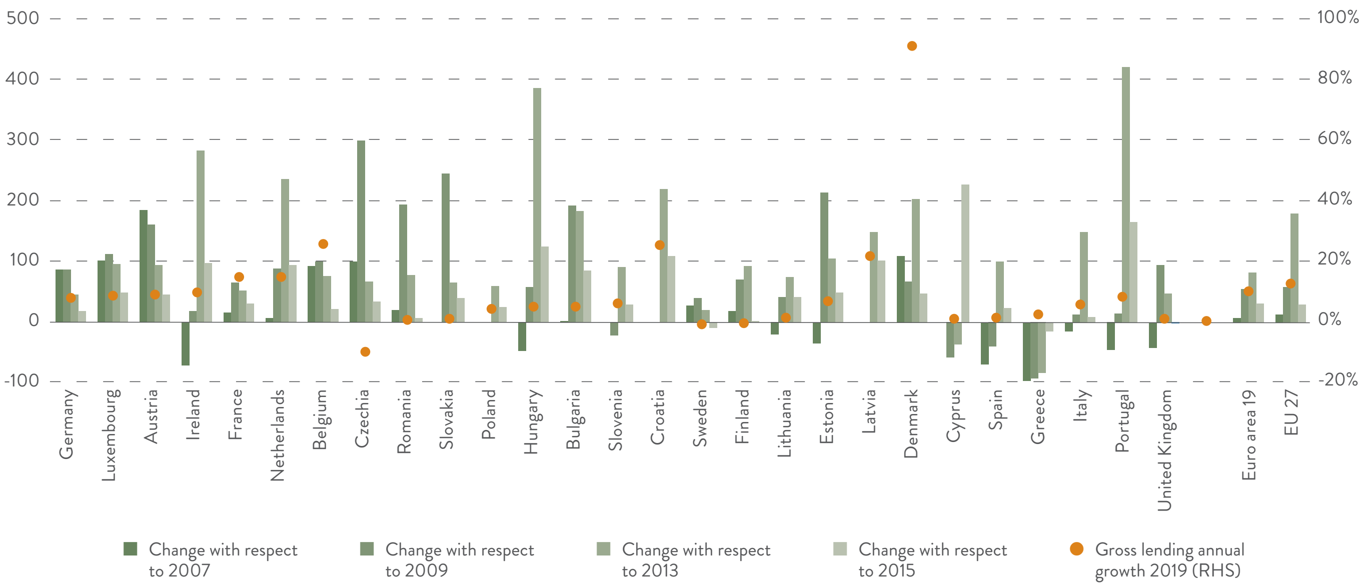
On the other hand in France and the Netherlands the gross lending level of 2007 was reached after a significant reduction in 2013. In Ireland and the UK, notwithstanding the increase in gross lending in recent years, the level of 2007 has still not yet been reached; it is 70% short for Ireland and 41% short in the UK. In the East, 2009 was the year of least gross lending in countries except for Hungary which saw the lowest figure in 2013. In the Nordics gross lending contracted in Sweden and Finland in 2019, overall volumes have not changed much since 2015. In the Baltics the growth rate in 2019 was higher than in the other Scandinavian countries except Denmark where gross lending in 2019 nearly doubled, mostly due to very favourable remortgaging conditions. In the South, where data is available, none of the countries in 2019 have reached their 2007 figures with especially Spain and Greece being short respectively 70% and 95% of their gross lending figures. The regions, however in the last years has shown renewed dynamism.

CHART 21 | OUTSTANDING MORTGAGE MARKETS EU27 AND UK, IN PERCENT



Source: European Mortgage Federation

CHART 22 | GROSS LENDING 2019 COMPARED TO SELECTED YEARS



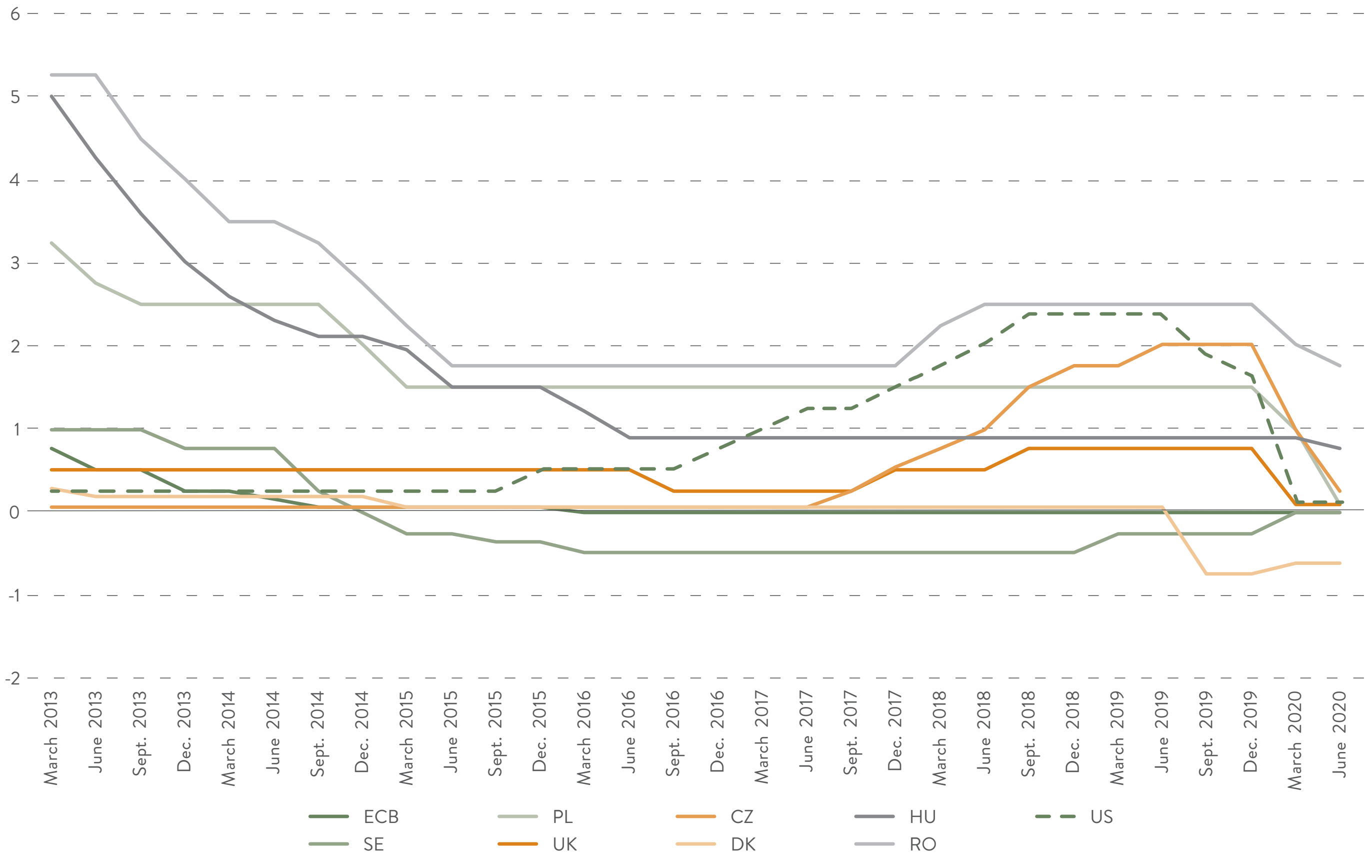
Source: European Mortgage Federation

MORTGAGE MARKET INTEREST RATES

Mortgage interest rates in aggregate slightly decreased in 2019 reversing the trend of 2018. The amount of variable interest rates (with an initial fixation period of at most 1 year) still varies considerably among EU Member States with Poland having all mortgages on a variable rate while in Croatia, Hungary and Slovakia only a few percent of new mortgages have a variable rate. In absolute terms mortgages with a variable interest rate increased. However, it appears that trends and expectations have started to change the preference of the issuers.

Central Banks, especially the ECB, have been active in 2019 to counteract the slow economic momentum. The ECB, with the disappointing Spring economic data at hand, enacted during the course of 2019 a series of policy packages to build up inflationary pressures. They announced unchanged policy rates or even, in the second half of 2019, to reduced their refinancing rate and announced a new set of funding measures for banks (the targeted long term repo operations or TLTRO) and the commitment to reinvest in full funds from maturing bonds in their various current asset purchase programmes. This last commitment was further reinforced in November 2019 when the monthly net purchases were increased to EUR 20 bn a month. In 2020 as a measure against the COVID-19 pandemic the ECB launched the Pandemic Emergency Purchase programme (PEPP) expanding it to EUR 1,350 bn by the end of 2022. In addition they revised the TLTRO III programme and eased a set of supervisory measures to provide more flexible capital requirements for banks to to stabilise financial markets and to protect credit supply. Amongst the various measures put in place, the ECB did not change its refinancing rate which has been 0% since March 2016. The other Central Banks in the review have all reduced at different stages and to various degrees their refinancing rates in order to provide a more accommodative environment, except for Denmark where a marginal increase from -0.75 to -0.6% was announced in March 2020.

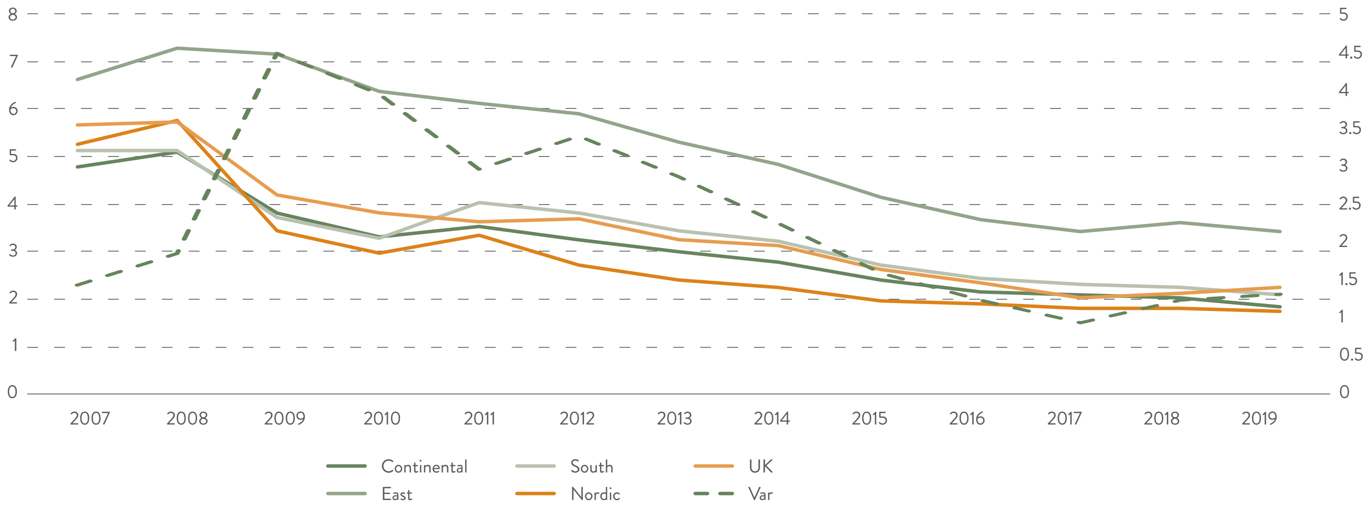
CHART 23 | BENCHMARK POLICY RATES FOR SOME EU CENTRAL BANKS AND THE FED, PERCENT P.A.



Source: Bank for International Settlements

Parallel to this, in 2019 the interest rates on mortgages resumed their downward path reaching an average 2.33% in the EU 27 and UK, a new all-time low, 14 bps lower than in 2018. Out of the EU Member States and the UK in 8 countries rates have increased – this is not specific to one region. Furthermore, it appears that interest rates will continue to fall in 2020 in order to protect the motgage market from problsm associated with the COVID-19. This is not yet visible in the figures for Q2 2020, during the first half of the year interest rates did not show significant variations from their previous trends. Despite the overall decrease in interest rates there is still heterogeneity on the continent. As can be seen in Chart 24 the evolution of interest rates roughly follows a similar pattern in Europe, but starting from different levels. Indeed, the Nordic countries have continually lower interest rates despite the recent increase experienced in the past two years, while on average borrowers in Eastern Europe have to pay more for their loans. In between these extremes Continental and Southern Europe saw an overall decrease in mortgage rates. Moreover, the convergence in interest rates that started in 2012 is reversing and interest variance among countries has increased in 2019.

CHART 24 | MORTGAGE INTEREST RATES IN AGGREGATED EU REGIONS, IN PERCENT

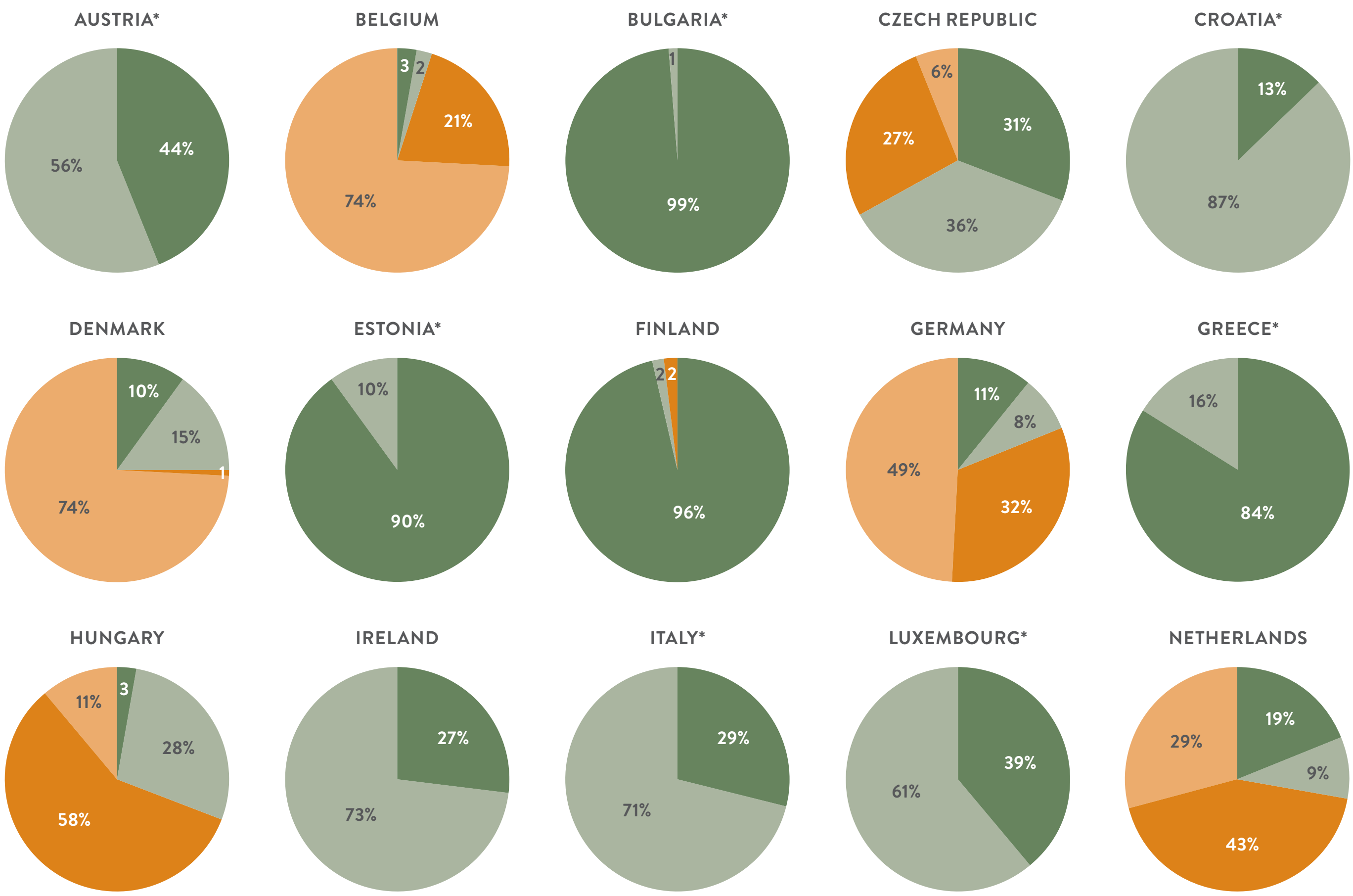


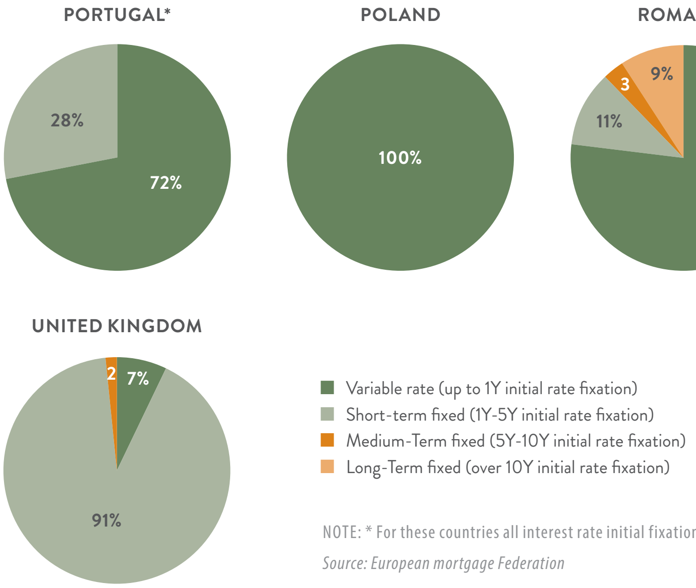
Source: European Mortgage Federation

DIFFERENT TYPES OF INTEREST RATES

Following the long term trend of decreasing or stagnant interest rates for new mortgage loans, a shift towards interest rates with longer initial fixed periods is seen in most countries as borrowers seek to lock in favourable rates. This trend is however built on very diverse appetites and tradition for variable interest rate mortgages as shown in the following charts depicting the breakdown of new lending in various EU Member States. As can be seen, countries from the EU founding members in general prefer more fixed rates together with Czechia, Denmark and Spain. At the other end of the spectrum, lenders in Bulgaria, Finland and Poland almost exclusively provide variable interest rates.

CHART 25 | MORTGAGE MARKET GROSS ISSUANCE BREAKDOWN BY INTEREST RATE TYPE IN 2019



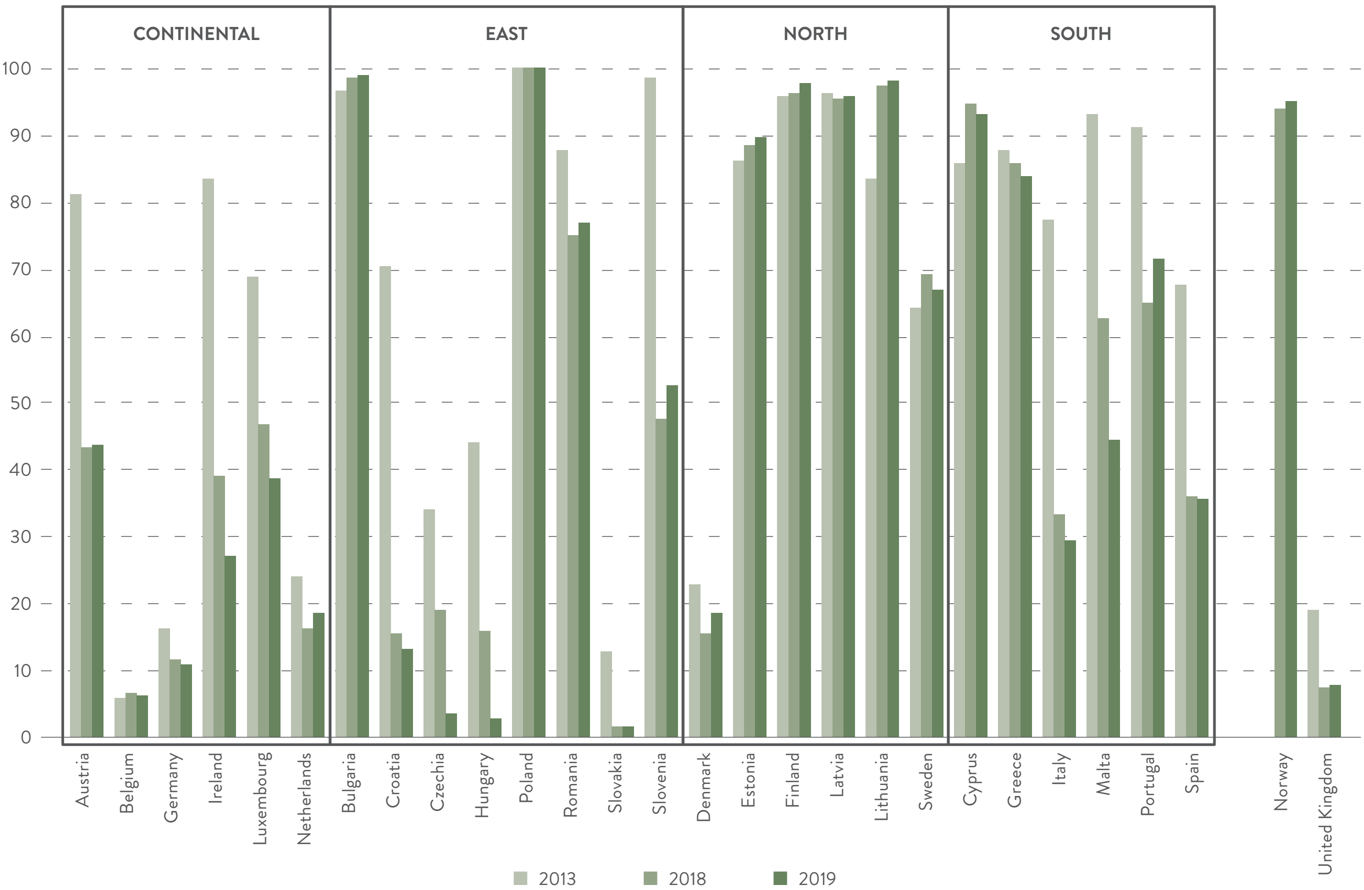


NOTE: * For these countries all interest rate initial fixation rate over 1 year fixation have been pooled together.

Source: European mortgage Federation

In Chart 26 it is possible to better understand how the preference for variable interest rate shifted over time by country. Variable interest rates were more popular in 2013 than in 2019 in the majority of countries. Since then nearly everywhere more fixed rate mortgages have been chosen and in all countries except for the Nordics, Belgium, Poland, Greece and Cyprus the decrease of variable rates has been substantial. In the Baltics, Finland and Bulgaria on the other hand the already large majority of variable rate issuance further expanded with Poland up until now issuing only variable mortgage rates.

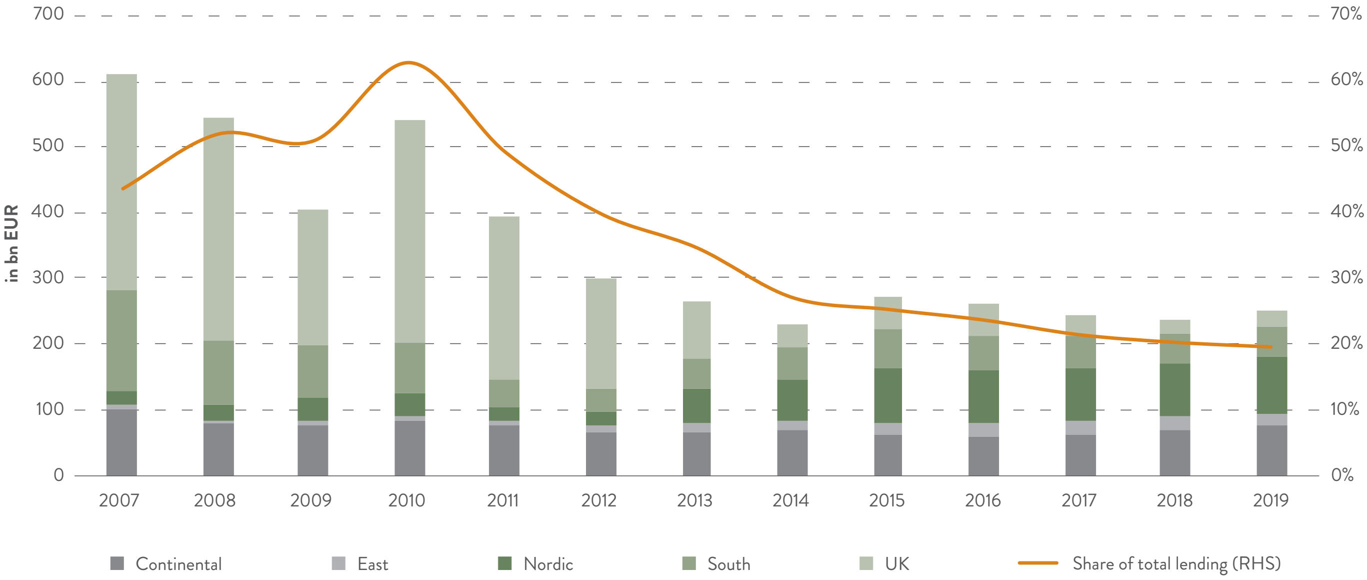
CHART 26 | SHARE OF VARIABLE MORTGAGE RATES IN NEW LENDING IN SELECTED YEARS



Source: European Mortgage Federation

In the EU27 and UK in 2019 the share of gross issuance with a variable interest rate accounted for just under 20% continuing a ten-year-long declining trend since the 2010 peak, when over 60% of new mortgages had a variable interest rate. In absolute terms the new variable interest gross lending accounted around EUR 215 bn which marked in absolute terms a first increase (5.6%) since 2014. The largest variability over recent years was in the UK where until 2012 more than 50% of mortgages had variable rates which then declined. On the other hand, in the Nordic countries starting from 2013 variable interest rates became more popular accounting in 2019 for over 40% of all variable mortgages in the EU27 and UK.

CHART 27 | EVOLUTION OF GROSS LENDING MORTGAGES WITH VARIABLE INTEREST RATES



Source: European Mortgage Federation

Austria

Dr. Karin Wagner, OeNB
and Dr. Wolfgang Amann, Associate Professor, IIBW

IN A NUTSHELL

- → Macroeconomic development was mixed with stable growth in construction.
- → House prices continue to grow. Rental markets are heavily influenced by regulated sub-markets (limited-profit housing associations, municipal housing, rent-regulated private sector).
- → Residential mortgage lending has had stable development in 2019.
- → Subsidised housing continues to be a main pillar of multi-apartment new construction, even though its share has decreased to below 50% recently. Financing of affordable housing relies on subsidy schemes which despite their quantitative significance are below 0.5% of GDP.
- → Subsidised and limited-profit housing worked as a shock absorber during the Global Economic Crisis of 2008/09. It seems to have a similar impact in the current COVID-19 crisis.

MACROECONOMIC OVERVIEW

In the wake of the international economic slowdown, economic growth in Austria weakened in 2019 significantly. The exposed sectors were particularly affected by this development. Export growth slowed significantly, and domestic industry has been in recession since mid-2019. Domestic demand – especially consumer demand and the flourishing construction sector – counteracted a stronger economic slowdown.

Economic development was mixed, industrial value added declined since Q2 to a level below 2018 due to the difficult external environment, the service sector and the construction industry have stabilised growth. Residential construction and the service sector which are less dependent on external factors grew due to domestic demand. The boom in residential construction is due to the high housing demand, rising property prices and continuing favorable financing conditions.

The wide range of current forecast scenarios for economic growth in Austria in 2020 reflects the unusually high level of uncertainty in the current situation of the COVID-19 pandemic. At the end of March, the central bank (OeNB) calculated three scenarios that differ in terms of the length of the lockdown. In the mild scenario, a 5-week lockdown followed by a gradual relaxation over a further 5 weeks until mid-May is assumed, in the severe scenario, a lockdown of 13 weeks and a 10-week relaxation phase. In the double-dip scenario, a second wave of infection and a second lockdown of 5 weeks and a 10-week relaxation phase are assumed based on the mild scenario for the fourth quarter. The three scenarios lead to a GDP loss of -3.2%, -8.1% and -8.3%. While the IMF forecasts a decrease for Austria of -7% for 2020 (forecast of 14 April), the European Commission sees -5.5% for this year (published on 6 May).

The number of unemployed or short-time workers has increased dramatically and hence their ability to pay rents, loan repayment and utility costs decreased.

On the other hand, the supply side appears more or less crisis-proof. 2019 saw the second highest number of housing permits ever. And construction sites revived from the general lockdown in March/April 2020 rather quickly. Construction activities were mainly impeded due to interruptions of the supply chain and travel restrictions of foreign workers. Altogether, only a moderate downturn of the construction industry is expected for 2020. But during the COVID-19 crisis, public permission procedures have strongly diminished, which will have a lasting negative effect on the construction output.

HOUSING MARKETS

The effects of the COVID-19 crisis on the development of residential and commercial rent and property prices are particularly related to the duration and intensity of the crisis.

The residential property sector has shown to be more resilient to the COVID-19 crisis than the commercial property sector. In the long term, capital could shift to more robust asset classes such as residential property. Real estate experts expect that house prices continue to increase at moderate pace. For rental apartments, the situation is divergent. The big stock of social and affordable housing – municipal housing, limited-profit housing associations (LPHA) and rent-regulated private apartments represent one third of the total housing stock and three quarter of all rental apartments – does not react on the COVID-19 crisis at all, as rent increases are basically linked to the CPI. Commercial rental apartments were booming recently, with only in Vienna expected 5-7,000 completed units in 2020. For this sector it seems unlikely that the currently very high rent level will maintain.

The commercial real estate market will be more affected than the residential property market due to its strong link to economic development. Companies directly affected by the containment measures faced a drop in sales of up to 100%. In the case of commercial rental space, it can be expected that if the containment measures are continued for a long time, there will be a decline in demand and thus a reduction in rental prices – with corresponding consequences for the landlords. A fall in rents would have an impact on the profitability of commercial real estate – valuation haircuts may be necessary. This could in turn lead to problems for the liquidity and solvency of landlords. While moderate effects are expected on the office market, the retail sector is particularly hard hit by the COVID-19 crisis. The situation of increasing online trading affected the retail sector even before the COVID-19 crisis. Now, after the crisis has been overcome, companies may critically question their expansion plans – along with postponements or the drop in new leases or transactions planned before the crisis broke out. The retail store network may become less dense in the future due to the advance of online retail; accompanied by vacancies in commercial space. In sectors that are hardly "online-capable" (e.g. services, tourism, gastronomy), the space requirement will not change so quickly in the long term. In these sectors, the property is often owned by the operator. The warehouse and logistics area could benefit in some areas from online trading.

MORTGAGE MARKET

Residential mortgage lending growth to households was largely stable in 2019. For the first quarter of 2020, there was no significant effect of COVID-19 in the credit performance data. The growth in home loans to households accelerated slightly in the first months of this year and was 6.0% in March 2020 compared to the previous year. The share of variable interest loans (fixed interest period up to 1 year) in new lending business was 43.2% in March 2020 (on average over the previous twelve months), compared to 42.5% in the same period of the previous year. The foreign currency share of residential construction loans was 10.0% in March 2020, 1.5 pps less than a year ago.

MORTGAGE FUNDING

A bulk of external financing came in the form of debt. Debt financing in 2019 was mainly long-term (maturity over one year), while short-term funding decreased. Almost all net new debt in 2019 was funded by domestic sources and other nonfinancial corporations accounting for roughly one half each.

Loans of Austrian banks contributed almost half of external financing of non-financial corporates in 2019. Real estate-related industries (construction and real estate activities) remained the main driver of the dynamics of MFI loans to the corporate sector, accounting for 57% of total growth. Loans to these industries – in particular to real estate activities (75% of total) – are mainly long-term. Household loans continued to grow until the first quarter of 2020. In March 2020, bank loans to households (adjusted for reclassifications, valuation changes and exchange rate effects) rose by 4.5% year on year in nominal terms.

Covered Bonds play a significant role in the funding of mortgages accounting for around one third of the total outstanding.

HOUSING POLICY

Housing policy is focused on regulated rental housing and its financing. The Limited-Profit Housing sector continues to flourish, with almost 17,000 completed apartments in 2019 (almost 2 units per 1,000 inhabitants) and hardly interrupted production in early 2020.

A new trend is seen in municipal housing, with Vienna reviving social housing construction after 20 years. Initiatives to liberalise private rental markets have been postponed. Social housing is available for residents with low incomes and is integrated with the general rental market.

Financing of affordable housing mainly relies on Länder's housing subsidy schemes ("Wohnbauförderung"), which spent approx. EUR 2.0 bn in new construction, refurbishment and housing allowances in 2019. Other tools, such as tax subsidies, a minimum income scheme, and financing subsidies for green investments, play a subsidiary role. The financing of "Wohnbauförderung" benefits from close interaction with the system of limited profit housing construction and tailor-made capital market financing instruments. Altogether, public expenditure on housing is below 0.5% of GDP, one of the lowest in the EU but with impressive results in terms of quantity and quality of housing, affordability and aspects of social integration.

A COVID-19 act from April 2020 also included housing policy measures, amongst them a temporary ban of evictions for non-payment of rents, or suspended prosecution for default payment of utilities. Twelve years ago, during the Global Financial Crisis, the LPHA sector in combination with the housing subsidy schemes of the Länder have proved to be a shock absorber for housing, the construction industry and social stability. It seems that the same will happen in the current crisis.

Housing is well positioned in the political agenda. The main pillars of housing policy are supported by basically all political parties.

	AUSTRIA 2018	AUSTRIA 2019	EU 27 2019
MACROECONOMIC VARIABLES			
Real GDP growth (%) (1)	2.4	1.6	1.5
Unemployment Rate (LSF), annual average (%) (1)	4.9	4.5	6.7
HICP inflation (%) (1)	2.1	1.5	1.4
HOUSING MARKET			
Owner occupation rate (%) (1)	55.4	55.2	69.9*
Gross Fixed Investment in Housing (annual change)(1)	1.3	4.3	3.3
Building Permits (2015=100) (2)	108.2	121.8	122.0
House Price Index – country (2015=100) (2)	119.6	126.6	125.5**
House Price Index – capital (2015=100) (2)	110.9	116.3	129.5**
Nominal house price growth (%) (2)	4.7	5.8	5.9**
MORTGAGE MARKET			
Outstanding Residential Loans (mn EUR) (2)	112,666	119,775	5,904,991
Outstanding Residential Loans per capita over 18 (EUR) (2)	15,458	16,356	16,165
Outstanding Residential Loans to disposable income ratio (%) (2)	54.8	59.0	62.9
Gross residential lending, annual growth (%) (2)	-0.1	8.8	9.6
Typical mortgage rate, annual average (%) (2)	1.8	1.6	2.3**

* The aggregate EU figure is from 2018.
** Please note that this value is the simple average of the available values in 2019.

Sources:
(1) Eurostat
(2) European Mortgage Federation - Hypostat 2020, 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 subsidised and housing allowances are granted.

Belgium

By Frans Meel and Zoë Delhaye, Union Professionnelle du Crédit

IN A NUTSHELL

- → GDP grew by 1.4%, coming from 1.5% in 2018.
- → The unemployment rate is the lowest ever recorded at 5.4%.
- → Interest rates are very low reaching on average 1.78% from 1.91% in 2018.
- → House prices rose by 3%, a moderation from the 4% growth seen in 2018.
- → The withdrawal of the housing bonus by the Flemish region is affecting the mortgage market.

MACROECONOMIC OVERVIEW

GDP grew by 1.4% in 2019, compared with 1.5% in 2018. In spite of the uncertain economic environment, the period of expansion since 2013 has continued. Although the **construction industry** accounts for no more than 5% of economic activity in Belgium, it has contributed to its growth with an increase of 4.3%.

The slowdown in foreign markets has put a brake on Belgian **exports**. Conversely, **imports** have seen a stronger increase making foreign trade contribute to the negative growth in GDP (-0.1 pps). Consequently, the Belgian economy has been sustained by domestic demand, more particularly household and business investment. Private consumption saw an increase of 1.1% in 2019 compared with 1.5% in 2018. Public sector consumption increased by 1.8% in 2019 against 0.9% in 2018.

Investment in housing bounced back significantly with an increase of 5.9% in 2019. Factors which may account for this growth are in particular the increase in household purchasing power, low mortgage interest rates and the weakness of returns on financial assets.

Job creation was strong with an increase of 74,000 jobs, which were partly caused by government measures such as tax relief on income from employment and more unemployed getting into work. The rate of employment rose to 70.5%, compared with 67.2% in 2015. Similarly, **the rate of unemployment** fell to a percentage never before recorded of 5.4%, compared with 7.1% in 2017.

Total inflation was 1.2% in 2019 as against 2% in 2018. The slow down in consumer prices can in particular be explained by the reduction in energy prices (for example, the reduction in the price of Brent crude) and in the price of food.

HOUSING MARKET

According to the BNB, and like many European countries, Belgium has seen a marked increase in **house prices** over the past decades with only two periods of downturn: in the mid-80s and during the financial crisis of 2008.

In 2019, house prices increased by 3%. This increase can in particular be explained by an increase in **demand** following easier access to mortgage credit, due to the increase in disposable income, the lowering of mortgage interest rates and tax incentives encouraging house buying.

Two main constraints stopped **supply** from matching demand:

- The amount of developable land for housing. In 2015 11% of developable land was already occupied by buildings, which put Belgium far ahead of the average for the eurozone (3%). This can be explained by a particularly high population density.
- Regulatory constraints resulting in supply reacting more slowly to fluctuations in demand.

Nevertheless, at the end of 2018 residential investment recovered strongly. The recent rebound in investment and construction could moderate house prices in the future.

In 2019, the **median price in Belgium** for a terraced or semi-detached house was EUR 215,000 and EUR 300,000 for a detached house. As shown in the next paragraph the price of housing varies according to the region in which it is located:

The **Brussels-Capital region** is the most expensive region. Terraced or semi-detached houses there cost on average EUR 400,000 while detached houses cost an average of EUR 865,000. **Wallonia** is the least expensive region with a median price of EUR 148,000 for terraced or semi-detached houses and EUR 240,000 for detached houses. Finally, the prices in the **Flemish region** lie between these two extremes: terraced or semi-detached houses there cost EUR 240,000, detached houses cost EUR 330,000.

In terms of **policy decisions**, the new Flemish government announced the withdrawal of the housing bonus (a tax incentive throughout the period of a loan) for all transactions from 1 January 2020. This resulted in a surge in purchases in the last quarter of 2019. The effect on transactions in Flanders in 2019 compared with 2018 was felt most on terraced and semi-detached houses (+71.9%), and least on apartments (+40.9%).[1] Wallonia and the Brussels region saw an increase in transactions for this type of property of 5.7% and 6.2% respectively compared with 2018.

MORTGAGE MARKET

The **outstanding amount of residential mortgage lending** reached about EUR 263 bn at the end of 2019 (against EUR 246 bn at the end of 2018).[2]

According to the Union professionnelle du credit (UPC), in 2019, the number of loan applications (apart from those for refinancing) increased by close to 16% compared with 2018. The total amount of the loan applications also increased,

[1] https://statbel.fgov.be/fr/themes/construction-logement/prix-de-limmobilier

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

by almost 17%. 412,000 loan applications were submitted for a total amount of a little more than EUR 60 bn. In all, almost 310,000 new mortgage loans were granted 2019 for a total amount of almost EUR 42 bn. The number of mortgage loans granted increased by more than 22% in 2019 and the amount of those new mortgages loans leapt by 23.7%.

The numbers of loans granted for all purposes increased. Compared with 2018, the number of loans taken out for renovating a house saw the highest percentage increase, +32%, equal to 16,600 loans. The number of loan agreements for purchasing a house (+25,600) increased by 18.5% in the year. The number of loans for purchasing and converting a house (+2,860) saw an increase of 29.5%, whereas the number of building loans (+8,900) increased by 26.2%. The number of loans taken out for other purposes (+2,300) increased by 12.7%.

In 2019, the number of **external refinancing** transactions (+8,900) increased by 33.7% compared with the previous year. A little more than 35,000 external refinancing transactions were recorded in 2019, for a total amount of almost EUR 4.5 bn.

The announcement of the withdrawal of the housing bonus in Flanders led to a temporary acceleration in the new mortgages. The average amount of loans for **purchase and renovation** increased and exceeded EUR **200,000 for the first time**. The **average amount borrowed to buy a house** also increased slightly in the fourth quarter of 2019, to reach EUR **165,000**. The average amount of a **building loan** stabilised at around EUR **175,000** in the fourth quarter of 2019. In the last quarter of 2019, **around 90% of borrowers** opted for a **fixed rate** or a **variable rate accompanied by an initial period at a fixed rate for at least 10 years**, only 2% of borrowers still opted for an annual variable rate of interest.

The conclusion of mortgage loan agreements largely accounts for the increase in **household debt**. This was 61.1% of GDP (namely EUR 300 bn, 245 bn of which were mortgage loans) at the end of September 2019, whereas the average in the eurozone is 57.9%. The number of mortgage loan approvals given, this comes to 56,027 in comparison with 62,667 in 2018.

The **average interest rate for mortgages with an initial fixation period of at least 10 years** fell from 2.0% in December 2018 to 1.6% in November 2019. Given this reduction the net interest margins of banks compressed and a volume strategy was applied to increase the number of concluded mortgage contracts. This led to an increase in the proportion of new loans with an LTV ratio higher than 90%. The proportion of loans with an LTV > 90% went from 38% (2014) to 37% (2018). Furthermore, the proportion of loans with a maturity of more than 20 years also increased, going from 31% (2014) to 39% (2018). *(BNB [NBB], annual report 2019.)*

To mitigate concerns of over-expansion, the BNB adopted new macroprudential measures in 2019:

- **The countercyclical capital buffer (CCyB):** financial institutions have to hold greater reserves in order to increase their capacity to bear credit losses in a market downturn(from 0% to 0.5%).
- **Prudential rules:** indicators and thresholds will be fixed in order to channel the granting of mortgage loans. This concerns, for example, the more prudent granting of a loan when the LTV is high. The NBB stated that, given the further deterioration in banks' credit standards, an additional measure by the NBB is required for the continued protection of our country's financial system against potential risks or shocks.

Although household indebtedness has increased, the **default rate** on mortgage loans has not increased. Therefore the proportion of loans in default is under 1% of all housing loans, whereas the level of arrears per contract in default fell slightly compared with the end of 2018, to EUR 38,400 (as against EUR 41,400). *(BNB [NBB], annual report 2019)*

In addition to the impact of the withdrawal of the housing bonus in the Flemish region, the COVID-19 pandemic will have serious consequences for the mortgage market. Consequently, it is very probable that the situation connected with the Belgian lockdown will have an effect on the number of mortgage agreements taken out. Furthermore, mortgage payment holidays have been granted under certain conditions in order to enable borrowers to survive the crisis. Finally, the economic situation will probably be very much affected by the closing of borders, businesses, restaurants and the increase in the unemployment rate, etc.

MORTGAGE FUNDING

The UPC is fully committed to the EEMI from EMF project supported by the European Commission and is actively working towards its implementation in Belgium.

We are currently campaigning for financial institutions to have access to the EPC databases in order to promote the granting of advantageous and less energy-intensive credits.

Sources:

Banque Nationale de Belgique [National Bank of Belgium], annual report 2019, Brussels.

Statbel, La Belgique en chiffre, available at https://statbel.fgov.be/fr, seen on 27 May 2020.

	BELGIUM 2018	BELGIUM 2019	EU 27 2019
MACROECONOMIC VARIABLES			
Real GDP growth (%) (1)	1.5	1.4	1.5
Unemployment Rate (LSF), annual average (%) (1)	5.1	5.0	6.7
HICP inflation (%) (1)	2.3	1.2	1.4
HOUSING MARKET			
Owner occupation rate (%) (1)	72.3	n/a	69.9*
Gross Fixed Investment in Housing (annual change)(1)	1.6	4.6	3.3
Building Permits (2015=100) (2)	135.7	121.3	122.0
House Price Index – country (2015=100) (2)	113.1	119.4	125.5**
House Price Index – capital (2015=100) (2)	106.9	112.7	129.5**
Nominal house price growth (%) (2)	3.9	5.6	5.9**
MORTGAGE MARKET			
Outstanding Residential Loans (mn EUR) (2)	246,528	263,419	5,904,991
Outstanding Residential Loans per capita over 18 (EUR) (2)	27,123	28,814	16,165
Outstanding Residential Loans to disposable income ratio (%) (2)	92.8	95.6	62.9
Gross residential lending, annual growth (%) (2)	4.0	25.5	9.6
Typical mortgage rate, annual average (%) (2)	1.9	1.8	2.3**

* The aggregate EU figure is from 2018.
** Please note that this value is the simple average of the available values in 2019.

Sources:
(1) Eurostat
(2) European Mortgage Federation - Hypostat 2020, 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 95.4% • Insurance companies: 1.1% • Other types of lenders: 3.5% 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 median maturity of a mortgage loan at origination is about at 20 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 almost 40% in 2018 and 2019.
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 January 2020 on, the registration duty in **Flanders** is 10% of the purchase price. For the own and only home as the main residence, this duty is lowered to 6% of the purchase price. It only amounts to 5% in case of a deep energetic renovation in the first 5 years after the purchase. Application of an additional reduction of EUR 5,600 (or EUR 4,800 in case of deep energetic renovation) 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. However, in case of a main residence, the first EUR 20,000 of the purchase price is exempt from registration tax. The registration tax amounts to only 6% on the first slice of EUR 174,000 in case of small properties in some cities and on the first slice of EUR 163,125 in more rural areas. The tax on that slices is even lowered to 5% in case of social mortgage credit. In the **Brussels region**, the normal registration duty amounts to 12.5% of the purchase price. However, 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. 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: **Flanders** no longer provides a tax reduction. The "housing bonus" system, which allowed the owner of a single house to obtain deductions (40% tax relief) for construction/ purchase/ renovation up to the total amount of EUR 1,520 (and even EUR 2,280 during the first 10 years of the mortgage) has been replaced since 01.01.2020 by a reduction of the registration duty. 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** also no longer provides a tax reduction. It was replaced by 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. The **federal state** still provides a tax reduction if one buys a second house : a deduction of up to EUR 1,520 (tax relief of 40%) is still possible.

Bulgaria

By Kristina Dimitrova and Petar Ivanov, Tsvetkova Bebov Komarevski

IN A NUTSHELL

- → The economy continued to grow, GDP increased by 3.4% with an increase in average wages, reduced unemployment and a stable fiscal policy with government surplus of over 2%.
- → This positive outlook created an increase in gross residential lending and higher average house prices, with stark differences between the largest cities and rural areas.
- → While in 2019 the market saw its best year in a decade, the economic fallout of COVID-19 is likely to cool down the market.
- → 2020 began with two legislative initiatives aimed at improving conditions for securitisations and covered bonds.

MACROECONOMIC OVERVIEW

The economy continued its positive growth, GDP increased slightly more than in the previous year (3.4%, from 3.1% growth). This GDP increase was more than twice the EU average of 1.5%.

Some of the drivers of the continued growth include the financial services sector reforms and stable euro-convergence indicators, as Bulgaria has expressed interest in joining the Exchange Rate Mechanism II (ERM II), as part of the European Union membership and eurozone obligations. In July 2020 Bulgaria officially joined ERM II. The fiscal surplus remained just over 2%, compared with the EU average of 0.6%. In addition, there was a marked increase in investments and industrial and construction output in comparison with 2018. Nevertheless, imports and exports as a percentage of GDP have both slightly decreased.

Other key factors include the continued increase in wages (nearly 12% since Dec 2019), and a decrease in unemployment by 1% down to 4.2% at year-end. This resulted in an increase in domestic demand and in residential loans. The HICP continued to increase well above the EU average to 2.5%.

This, as well as other factors, such as the improved employment rate, wage increase and sound fiscal policies, have contributed to the maintenance of a good microeconomic outlook.

HOUSING MARKET

The continued GDP growth, with reduced unemployment and increased average wages, has caused a slight increase for new residential buildings, although the number of building permits issued (5,980) and housing starts (4,223) remains almost a third of the 2015-2016 levels. There has also been a 31% increase in completions of new residential buildings from to 3,052 (2,324 in 2018) which further explains why building permit requests remain lower than in 2015-2016, whilst the volume of residential lending has increased by 18.7% to BGN 3.5 bn (ca. EUR 1.8 bn) (from BGN 2.9 bn (ca. EUR 1.5 bn) in 2018), an overall 87% increase compared with 2015.

Average house prices increased by 7.8 % to 133.9 (2015 = 100). There are regional differences, with the South-east having a roughly 50% lower increase compared with the country as a whole. In contrast in Sofia, HPI increased by 12.5%, a total increase of 68% compared with 2015. Similar trends are also observed in other larger cities – in Plovdiv average house prices have increased by 13.5% y-o-y or 55.5% since 2015, in Varna this was 10% or 47% when compared with 2015. These discrepancies in price increases are caused by the fact that the larger cities continue to be the most desirable places to live and have a higher average wage – for instance the average wage in Sofia was 36.6% higher than the nation-wide average, and unemployment was 1.6% in Sofia vs. 4.2% national average.

Similarly the rental market has discrepancies with a steady increase of prices and demand in Sofia compared with the other regions, for the same reasons.

MORTGAGE MARKET

MARKET DYNAMICS

The market has seen a sustained growth in volumes and lowering of interest rates since 2010 with slow recovery of the domestic market following the crash of 2008/2009 as a result of the global financial crisis.

2019 marked the peak as the market grew by 14.5% to a total of BGN 12.48 bn (ca. EUR 6.38 bn). Gross mortgage lending has grown more slowly at a 4.9%. Interest rates continued to decrease to an annual average of 3.1% for BGN loans (3% as of Dec 2019) and 3.57% for EUR loans (3.26% as of Dec 2019). Although these are above the EU average, they are well below the levels reached in Bulgaria in 2009 (10.09% for loans in BGN and 8.59% for loans in EUR).

Most new lending is at floating interest rates, with 85% of all outstanding loans and 95% of new loans being BGN denominated, despite the country's aspirations of joining the eurozone. The maximum maturity for new loans is 35 years with an average between 20 - 25 years. The average borrowed amount on new loans ranges between BGN 100,000 – BGN 140,000 (ca. EUR 51,000 – EUR 71,500) with an LTV of 75% - 80% and a tendency for the average LTV in the country to be higher year on year.

The increasing demand for housing loans, which turned 2019 into a record-breaking year, was fuelled mainly by the continuing rise in incomes, as well as by positive expectations for the housing market and the economy as a whole, which led to an increase in consumer confidence. Likewise, the level of NPLs in the country continued to decrease in 2019 to 6.17% of outstandings (8.43% in 2018), but still above the levels in most other EU countries.

On the supply side, as at the end of 2019 credit standards for households for house purchase have remained relatively eased mainly due to the positive macroeconomic context, favourable housing prospects and lower collateral risk.

NON-MARKET LED INITIATIVES AND FURTHER IMPORTANT EVOLUTION

This favourable market dynamics is likely to change in the course of 2020 due to the global outbreak of COVID-19 and the economic fallout it caused.

Although during the first months of 2020 Bulgaria was among the EU member states least affected by the humanitarian aspects of the COVID-19 pandemic, the Bulgarian economy is heavily dependent on trade with countries such as Germany and Italy, of which the latter was among those hit hardest by the COVID-19 crisis. Furthermore, the anti-epidemic measures adopted by the Bulgarian Government and other countries throughout Europe in the first months of 2020 have hit the local tourism and hospitality sectors, which traditionally employ many seasonal workers, as well as the goods transport sector. As a result, in Q1 of 2020 the unemployment rate in the country increased by 0.4% to 4.6% from the historic low of 4.2% achieved towards the end 2019. This is likely to intensify in the course of 2020 despite the already steady easing of the measures since May 2020.

All these factors make a decrease of new mortgage lending and a tightening of credit standards very probable. Moreover, due to the rise in unemployment rates a rise in the level of non-performing residential mortgage loans can be expected. Currently, the effect of COVID-19 on NPLs in Bulgaria is being held back by a private moratorium on principal and interest payments adopted by the Association of Banks in Bulgaria (a sectorial body of Bulgarian banks) and approved by the Bulgarian National Bank. Under the scheme, borrowers can apply before local lenders for rescheduling of their credit obligations, including mortgage loans, and can opt in for a grace period of up to 6 months. Applications under the scheme can be made until 22 June 2020. This moratorium scheme follows guidelines on the capital treatment of payments moratoria issued by the European Banking Authority in April 2020 and is aimed at preventing the large scale requalification of credit exposures from performing to non-performing as a result of the short term effects of the COVID-19 pandemic.

MORTGAGE FUNDING

Bank funding is dominated by deposits. As at the end of 2019, the banks had accumulated BGN 97.2 bn (ca. EUR 47.9 bn) in deposits (2018 – BGN 89.7 bn), 82.9% of GDP and 85% of the banking system's assets. Household deposits account for BGN 57.6 bn (EUR 29.4 bn) or 59% of the total, followed by deposits of non-financial entities – BGN 28.1 bn (EUR 14.4 bn) or 29%, and deposits of financial entities – BGN 8.8 bn (EUR 4.5 bn) or 9%.

This is mainly due to the well-established preference of households and non-financial entities to invest their funds in bank deposits and is a consequence of the underdevelopment of the capital market. The growth is also a result of the improved macroeconomic environment and the strengthening of consumer confidence in the banking system.

Wholesale funding tools such as securitisations and covered bonds are practically non-existent in Bulgaria. Whereas the lack of appropriate legal infrastructure has hindered the successful issuance of securitisations, mortgage bonds – a type of covered bonds – did not manage to establish themselves as successful and marketable product despite the issuance of programmes and stand-alone issues in the late 00s and early 10s. The last mortgage-backed bonds issue by a Bulgarian bank matured in September 2019. Recently, the Bulgarian government set out to change this and has engaged an EBRD funded project for the implementation of the EU's Covered Bond Directive (EU) 2019/2162, as well as published a consultation on a draft legislation to supplement the Securitisation Regulation (EU) 2017/2402.

GREEN FUNDING

The most prominent programme of the Bulgarian Government in the field of green funding is the National Programme for Energy Efficiency of Multifamily Residential Buildings (the Programme). The Programme was initiated by the Bulgarian Ministry of Regional Development and Public Works in 2015 and is ongoing. Its main objective is to address the high average age of residential buildings in Bulgaria, the majority of which were built in the 70s and 80s, and to increase their energy efficiency to modern sustainability standards. The Programme seeks to achieve this by providing support to homeowners in renovating residential buildings, including by providing co-financing through the Bulgarian Development Bank in a total amount of BGN 2 bn (EUR 1.02 bn).

From its start in 2015 to the end of 2019 the number of residential buildings renovated under the Program is 1820, containing 120,589 apartments. In 2020 a further 117 buildings (8,737 apartments) should be rehabilitated under the Programme.

Currently, the Bulgarian Ministry of Regional Development and Public Works is developing a new National Housing Strategy. The strategy is to set the framework for the future development of the Bulgarian housing sector, most notably by establishing mechanisms for wide scale housing renewal, creating conditions for mass privately funded housing development and developing new social housing infrastructure to support the socially disadvantaged. The new housing strategy should replace the 2004 National Housing Strategy, which failed to achieve tangible results other than in the field of energy efficiency under the Programme.

	BULGARIA 2018	BULGARIA 2019	EU 27 2019
MACROECONOMIC VARIABLES			
Real GDP growth (%) (1)	3.1	3.4	1.5
Unemployment Rate (LSF), annual average (%) (1)	5.2	4.2	6.7
HICP inflation (%) (1)	2.6	2.5	1.4
HOUSING MARKET			
Owner occupation rate (%) (1)	83.6	84.1	69.9*
Gross Fixed Investment in Housing (annual change)(1)	-2.2	1.5	3.3
Building Permits (2015=100) (2)	34.5	34.6	122.0
House Price Index – country (2015=100) (2)	122.7	128.5	125.5**
House Price Index – capital (2015=100) (2)	131.2	141.7	129.5**
Nominal house price growth (%) (2)	5.5	4.8	5.9**
MORTGAGE MARKET			
Outstanding Residential Loans (mn EUR) (2)	4,715	6,384	5,904,991
Outstanding Residential Loans per capita over 18 (EUR) (2)	805	1,099	16,165
Outstanding Residential Loans to disposable income ratio (%) (2)	15.1	19.6	62.9
Gross residential lending, annual growth (%) (2)	5.5	4.9	9.6
Typical mortgage rate, annual average (%) (2)	4.6	3.3	2.3**

* The aggregate EU figure is from 2018.
** Please note that this value is the simple average of the available values in 2019.

Sources:
(1) Eurostat
(2) European Mortgage Federation - Hypostat 2020, Statistical Tables.

BULGARIA FACT TABLE

Entities which can issue mortgage loans:	In Bulgaria there are no specialised mortgage banks. Therefore, all licensed commercial banks (credit institutions) can provide mortgage loans. The largest and most active lenders of residential mortgage loans are 'tier 1' banks DSK Bank (DSK), UniCredit Bulbank (UCB), Eurobank Bulgaria (Eurobank), United Bulgarian Bank (UBB), First Investment Bank (FIB), as well as 'tier 2' banks Raiffeisenbank Bulgaria (RBB), Central Cooperative Bank (CCB) and Allianz Bank Bulgaria (Allianz).
The market share of the mortgage issuances:	The 8 most active banks on the Bulgarian residential mortgage loan market account for around 90% of new mortgage lending – DSK* (21%), UCB (20%), RBB (17%), CCB (8.5%), FIB (8%), UBB (7%), Eurobank** (5%), Allianz (3%). * Aggregated data for DSK and Expressbank, which merged into DSK in April 2020. ** Aggregated data for Eurobank and Bank Piraeus, which merged into Eurobank in November 2019.
Proportion of outstanding mortgage loans of the mortgage issuances:	The 8 banks mentioned above form BGN 12.31 bn (EUR 6.29 bn) (ca. 96%) of outstanding residential mortgage loans, of which DSK* holds BGN 3.23 bn (ca. 25%), UCB – BGN 2.27 bn (ca. 17.7%), Eurobank** – BGN 2.07 bn (ca. 16%), UBB – BGN 1.42 bn (ca. 11%), RBB – BGN 1.40 bn (ca. 11%), FIB – BGN 887 m (ca. 7%), CCB – BGN 589 m (ca. 4.5%), Allianz – BGN 416 m (ca. 3.2%). * Aggregated data for DSK and Expressbank, which merged into DSK in April 2020. ** Aggregated data for Eurobank and Bank Piraeus, which merged into Eurobank in November 2019.
Typical LTV ratio on residential mortgage loans:	The average LTV ratio is 75% - 80%.
Any distinction made between residential and non-residential loans:	The official statistics of the Bulgarian National Bank (BNB) provides information only on residential mortgage loans extended by Bulgarian banks (and Bulgarian branches of foreign banks) – reported at nominal (principal) value before deduction of provisions, without fees and currently accrued interest. BNB defines "residential" or "housing" loans as loans granted to households for the purpose of investing in dwellings for their own use or for letting out, including for the construction and improvement of dwellings, which can be secured by various types of assets.
Most common mortgage product(s):	The most widely used mortgage products in Bulgaria are BGN denominated housing loans with variable rates, which are generally defined in the banks own lending policies. The average size of loans is between BGN 100,000 and BGN 140,000. Interest rates have been decreasing over the last years. As at 31.03.2020 the average interest rates on BGN denominated housing loans is around 3%. Due to the COVID-19 pandemic an increase in interest rates is likely.
Typical maturity of a mortgage:	The average maturity of mortgage loans in Bulgaria is around and above 20 years with maximum term of any mortgage being 35 years.
Most common way to fund mortgage lending:	Funding of mortgage loans is based largely on deposits. Alternative funding sources are uncommon in Bulgaria. There is practically no mortgage bond market in Bulgaria with last mortgage bond issuance dating back to 2014 and all issues being redeemed since, the latest in September 2019.
Level of costs associated with a house purchase:	A variety of taxes and fees are associated with purchasing properties in Bulgaria, most of which vary according to the property's price, but which may also depend on whether the property has land attached, whether it is being bought through an agent (as opposed to directly from the vendor), or whether there are other consultants involved (e.g. lawyer, surveyor or translator). In particular, a purchaser should be aware of the following related costs: municipal tax (up to 3% of the purchase price depending on municipality involved, no cap); notary expenses for the purchase and for the establishment of a mortgage (each notarisation costs between BGN 500 and BGN 6000 depending on the price of the property); state fee for registration of the purchase and the mortgage in the Bulgarian Property Register (each registration costs 0.1% of the property price, no cap); potential VAT implications of the purchase must also be considered.
The level (if any) of government subsidies for house purchases:	Not available, other than limited tax benefits for young families (spouse not elder than 35 years), which can deduct from their taxable income interest payments on loans (or the part of loans) up to BGN 100,000.

Croatia

By Edin Karakaš, ŽURIĆ i PARTNERI, OD d.o.o.

IN A NUTSHELL

- → Positive economic outlook in 2019.
- → Government – subsidised housing loans programme that started in 2017 continued to contribute to growth of the real estate and mortgage market.
- → Real estate transfer tax rate was reduced from 4% to 3% at the beginning of 2019, which caused some transactions to shift from 2018 to 2019 slightly artificially inflating the number of transactions in 2019.
- → COVID-19 pandemic expected to negatively influence the housing market, with higher unemployment rate and general drop in economic activity.
- → Damage caused by an earthquake to Zagreb rendered a number of properties unusable, creating demand for non-damaged properties and new developments, which is expected to partially offset the negative effects of COVID-19.

MACROECONOMIC OVERVIEW

Croatia maintained a stable economic outlook. In December 2019, Fitch affirmed its Long-Term Foreign-Currency Rating at BBB-, with Positive Outlook. Standard & Poor's credit rating remains BBB-, while Moody's is Ba2 with positive outlook.

After a minor slowdown in 2018, the economy grewin 2019 at a rate estimated at 2.9%, well above the average EU level,. GDP reached HRK 400 bn (ca EUR 54 bn) for the first time and exceeded EUR 13,000 per capita. Unemployment was maintained at around the EU average at 6.4%, with employment rate reaching 47.7% (0.8% increase from 2018). Migration to Western Europe slowed in 2018 after peaking in 2017, without unemployment rising.

The Croatian National Bank continued pursuing an expansionary monetary policy, ensuring liquidity in the capital market and exchange rate stability. Interest rates were reduced to historically low levels.

Government debt continued to decrease, reaching 73.2% of GDP in 2019, down 1.5% from a year before. External debt dropped from EUR 42.7 bn in 2018 to EUR 40.9 bn 2019. The currency (HRK) remained stability against the Euro, with an average annual exchange rate at about 7.41 HRK for 1 EUR.

Positive economic conditions allowed a tax reform to boost personal income. VAT was supposed to be reduced from 25% to 24%, but last-minute interventions prevented this. As already mentioned, real estate transfer tax was reduced to 3%.

Average annual inflation rate dropped from 1.5% in 2018 to 0.8% in 2019, continuing the relatively calm period since 2017.

HOUSING MARKETS

The property market continued to be healthy. The number of transactions reached a new high of 3,458 sales, a 20% increase from 2018, (2,880), and a more than 40% increase since 2017.

On an annual basis, average price of square meter in 2019 was HRK 12,338 (ca EUR 1,665), increase from HRK 11,466 in 2018. The calculation includes prices of new dwellings sold on a free market (HRK 12,536, ca EUR 1,691), as well as those constructed under government supported "Publicly Subsidised Residential Construction Program" (HRK 7,782 on average, ca EUR 1,050).

In Zagreb, annual average price of new dwellings per square meter was HRK 12,834, slight increase from HRK 12,749 in 2018. *(Croatian Bureau of Statistics, Construction)*

Annual average house price index (combined new and existing dwellings) reached 121.10 (the reference period for indices has been 2015 = 100). Annual average rates of change was 9%, with 13.2% in the City of Zagreb and 6.9% at the Adriatic coast. *(Croatian Bureau of Statistics, Prices)*

Construction in the housing market reached a ten-year high – 15,370 building permits were issued more than 30% more than in 2018. This is still below pre-2008 levels when the number of issued permits reached 25 thousand (though partly explained by the different regulatory regime). 73.7% of the building permits were issued for new construction and 26.3% for reconstructions. *(Croatian Bureau of Statistics: Prices; Croatian Bureau of Statistics: Construction)*

MORTGAGE MARKETS

MARKET DYNAMICS

While there is a trend in diversification in the financial sector banks still play a predominant role. Commercial banks' assets amounted to HRK 425.8 bn (EUR 57.5 bn) at the end of 2019. Housing banks' assets amounted to HRK 5.3 bn, only 1.2% of total credit institution assets. *(CNB Annual Report)*

High capitalisation and liquidity continue to be features of the banking sector. The total capital ratio averaged 23.2%. The average Liquidity Coverage Ratio was 172.7%.

Credit to the domestic (non-state) sector grew at 4.2%, a minor deceleration compared with 2018 (4.4%). Consumer loans drove growth, total gross residential lending amounted to HRK 13,769 mn (ca EUR 1,856 mn) over the year driving total outstanding residential loans to HRK 57,435 mn (ca EUR 7,720 mn), an increase of 6% over a year (HRK 54,040 mn (ca 7,293 mn)).

Interest rates on newly approved mortgage loans dropped from 3.6% at the end of 2018 to 2.9% at the end of 2019.

The combination of real estate price growth, lower interest rates and the subsidised housing loans programme caused the increase in mortgage lending activity. *(CNB Annual Report)*

The non-performing loans ratio reduced from 7.6% to 5.5%, still relatively high in comparison with other EU Member States *(CNB Annual Report)*. Banks continued to clean their balance sheets by selling non-performing assets. Non-performing loans from commercial companies dropped from 20.4% to 13.7%, and to the real estate sector from 26.9% to 13.3%. Non-performing residential loans percentage fell from 6.9% to 5.9%. Among residential loans, residential housing loans amounted to most of the drop in the non-performance level: from 5.2% at the end of 2018 to 3.9% at the end of 2019. *(Croatian national bank, Quality of Loans)*

NON-MARKET LED INITIATIVES

Two major legislative changes over the last three years influenced the mortgage market. First, the introduction of the Subsidised Housing Loans Act, and second, a reduction in real estate transfer tax.

In 2017, the Government introduced the subsidised housing loans programme. Under that programme, Croatian citizens under 45 years of age may get a subsidy for buying a house for residential purposes. Under the programme, the state will subsidise 30%-51% of monthly instalment for the housing loan. While there are many qualifying factors as to the persons and loans that qualify, their effect on the real estate and housing loan markets growth has been positive. *(Subsidised Housing Loans Act)*

In 2019, the real estate transfer tax was reduced from 4% to 3%. This is a second recent reduction of the real property, as the tax rate was already reduced in 2017 from 5% to 4%. Reduction of the tax might have enticed some of the transactions that were negotiated in 2018 to complete in 2019. *(Real Estate Transfer Tax Act)*

ANY FURTHER IMPORTANT EVOLUTION

The real estate market was shaken by two extraordinary events at the beginning of 2020.

First, the worldwide pandemics of COVID-19 and consequent slowdown in economy is expected to have a negative effect on growth of real estate prices, as well as on the credit activity of the banks. Under the government programme, banks stopped collecting on loans during the pandemics. Furthermore, negative effects on employment and GDP are expected to contribute to a contraction of the real estate market.

Second, Zagreb was hit by a series of earthquakes from March 2020 that rendered a great number of real properties in the centre unfit for use. Consequently, a number of residents and firms operating from the city centre were forced to look for replacement housing or business premises elsewhere. That development might offset to an extent the effects of COVID-19 pandemics on the real property market.

MORTGAGE FUNDING

According to the Croatian National Bank Annual Report for 2019, credit activity of the Croatian banks was chiefly financed by residential deposits. Under the influence of low interest rates, the structure of deposits is undergoing a structural change: shifting from term deposits to deposits on transactional bank accounts. Croatia is still in the process of adopting covered bonds legislation.

GREEN FUNDING

With the aim of increasing the energy efficiency of existing family houses, reducing energy consumption and CO_2 emissions and reducing monthly energy costs, with an overall improvement in quality of life, the Government adopted on 27 March 2014 the Program for the energy renovation of family houses for the period from 2014 to 2020. The Fund for Environmental Protection and Energy Efficiency (Energy Efficiency Fund) is charged with the implementation of the Program from 2014 to 2020.

At the beginning of 2019, the Ministry of Construction and Physical Planning commissioned a study how to implement calls for energy renovation of single-family homes. Based on the analysis, funds from the sale of emission allowances by auction will be used for the period until 2020. The Government committed HRK 142 mn for the implementation of energy renovation of family houses, in the financial plan of the Energy Efficiency Fund for 2020 and projections for 2021 and 2022.

An eligible family house is a building in which more than 50% of the gross floor area is intended for housing and meets one of the following two conditions:

1) has a maximum of three housing units
2) has a construction gross area less than or equal to 600 m^2.

Until the end of 2020, programme is implemented in two parts, i.e., for two target groups:

1) All citizens, owners of family houses – all owners of family houses in the Republic of Croatia, regardless of their social status;
2) Vulnerable groups of citizens – exclusively vulnerable groups of citizens at risk of energy poverty.

The implementation of the program for 2020 should be organised in two phases: in 2020, activities related to the public call are carried out, and in 2021, activities related to energy renovation works and payment of co-financing funds are carried out. *(Decision on the adoption of Amendments to the Program for energy renovation of family houses for the period from 2014 to 2020 with a detailed plan for the period from 2014 to 2016.)*

	CROATIA 2018	CROATIA 2019	EU 27 2019
MACROECONOMIC VARIABLES			
Real GDP growth (%) (1)	2.7	2.9	1.5
Unemployment Rate (LSF), annual average (%) (1)	8.5	6.6	6.7
HICP inflation (%) (1)	1.6	0.8	1.4
HOUSING MARKET			
Owner occupation rate (%) (1)	90.1	n/a	69.9*
Gross Fixed Investment in Housing (annual change)(1)	n/a	n/a	3.3
Building Permits (2015=100) (2)	168.6	221.2	122.0
House Price Index – country (2015=100) (2)	111.1	121.1	125.5**
House Price Index – capital (2015=100) (2)	116.4	131.8	129.5**
Nominal house price growth (%) (2)	6.1	n/a	5.9**
MORTGAGE MARKET			
Outstanding Residential Loans (mn EUR) (2)	7,293	7,720	5,904,991
Outstanding Residential Loans per capita over 18 (EUR) (2)	2,152	2,290	16,165
Outstanding Residential Loans to disposable income ratio (%) (2)	n/a	n/a	62.9
Gross residential lending, annual growth (%) (2)	4.3	25.1	9.6
Typical mortgage rate, annual average (%) (2)	3.6	3.0	2.3**

* The aggregate EU figure is from 2018.
** Please note that this value is the simple average of the available values in 2019.

Sources:
(1) Eurostat
(2) European Mortgage Federation - Hypostat 2020, 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 94.5%, and housing saving banks hold the rest 5.5%.
Typical LTV ratio on residential mortgage loans:	Between 70 and 80%.
Any distinction made between residential and non-residential loans:	'Consumer Housing Loans Act defines "housing loan" as a loan: a) collateralised by a security on residential immovable property or a transfer of ownership of residential immovable property for the purpose of securing the loan; or b) the loan the purpose of which is for the consumer to acquire or retain the ownership of residential immovable property. Loans not falling within this description would not be residential.
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 Subsidised 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 in 2019 at a slowing pace driven by traditional sectors primarily, tourism, construction and professional services, however, economic activity is expected to contract steeply in 2020 because of the COVID-19 pandemic.
- → Residential property prices continued to rise 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 in 2018-19.
- → New home sales have risen markedly since 2014 and continued to rise in 2019 but slowed significantly in the first half of 2020 impacted by the uncertainties associated with COVID-19.

MACROECONOMIC OVERVIEW

The Cypriot economy achieved considerable progress in the programme years 2012-14, and the recovery that started in 2015 continued uninterrupted into 2019. Real GDP increased by 3.1% following an increase of 5.2% the previous year. The unemployment rate dropped to 7.1% in 2019 and harmonised consumer inflation to 0.5%. Up until the end of the year an improving labour market, bank recapitalisations, lower borrowing costs and firmer external demand had bolstered purchasing power and construction activity. The business environment overall experienced uninterrupted improvement in this period.

In 2020 economic activity will be held back as tourism inflows are severely impacted from the COVID-19 outbreak. Real GDP will contract by 6.4% in the year and will recover by 4.7% in 2021 according to the IMF (World Economic Outlook, October 2020).

The government budget was is in surplus of 1.5% of GDP in 2019 and the gross debt to GDP ratio dropped to 94.0%. In 2020 the government budget will post a steep deficit as a result of the measures implemented to mitigate the effects of the COVID-19 pandemic. The budget deficit is expected to narrow gradually in subsequent years as the economy strengthens and the government reduces spending as a share of GDP. Total gross debt is expected to rise to 114.8% of GDP in 2020. However, underlying debt dynamics remain stable and debt-to-GDP should return to its downward trend in subsequent years.

In the banking sector, the stock of non-performing loans declined steeply in 2018 to 30.5% of gross loans after the largest lender, Bank of Cyprus, sold a package of loans and following the resolution of the Cyprus Cooperative Bank. Non-performing loans continued to drop, and the corresponding ratio was 28% at the end of December 2019 with a coverage ratio of 55.2%. At the end of May 2020 the non-performing loan ration was 26.8%.

HOUSING MARKET

Home ownership in Cyprus has been declining since the financial crisis of 2012-14 due to the recession and tighter credit conditions and at 70.1%, it is now the lowest among the peer group of southern European countries (Greece (73.5%), Portugal (74.5%), Spain (76.3%) and Malta (81.6%)).

The construction sector peaked in 2007, and declined by 61.0% by 2015, before recovering from 2016 to 2019, with sector real gross value-added rising at an average annual pace of 17.5%. Absolute gross value added doubled in the period in nominal terms, and the ratio to total economy real gross value added rose to 7.5% by 2019 (or 6.4% in nominal terms).

The number of completed new dwellings in 2018 (latest available data) was 3,866 compared with 2,993 the year before and a peak of 18,195 in 2008. The total stock of dwellings at the end of 2018 was 455,000 having risen by 15.5% since 2008.

Residential property prices as measured by the Central Bank's residential property index, rose in the period 2017-19 after dropping from 2009-16. Prices rose by 1.2% in 2017; 2.1% in 2018; and 2.6% in 2019. Residential property prices peaked in 2008 in Cyprus as a whole, and dropped by a cumulative 30.6% to 2016. Respectively, prices dropped by 29.8% in Nicosia, by 28.4% in Limassol, 35.7% in Larnaca, 29.0% in Paphos and by 36.1% in Famagusta.

The increase in property prices was mainly due to apartments, which rose by 12.3% rather than houses which only rose by 3.8%. By district respectively in the same cumulative period, prices have risen by 4% in Nicosia; 10.8% in Limassol; 3.6% in Larnaca; 3.4% in Paphos; and by 5.8% in Famagusta.

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 are still considerably below their 2007 peak, but have been rising sharply since 2014, up 42.6% in 2016; 23.7% in 2017; 5.8% in 2018 and 12.2% in 2019. In the first six months of 2020 new sales have declined by 21.8% due to a pandemic-induced fall in demand.

MORTGAGE MARKET

MARKET DYNAMICS

The mortgage market remains relatively large in relation to GDP despite years of restructuring and deleveraging. Total loans for house purchase at the end of 2019 were EUR 9.5 bn or 43.4% of GDP, of which EUR 8.6 bn or 39.2% of GDP were to domestic residents. This is a drop of 5% from the prior year and a cumulative drop of about 32.1% from the 2012 peak of EUR 12.7 bn for domestic residents.

New mortgage loans in 2019 amounted to EUR 972.1 mn of which EUR 98 mn were renegotiated amounts. This compares with new mortgage loans in 2018 of EUR 958.7 mn of which EUR 89.9 mn were renegotiated amounts. However, in the first half of 2020 new loans for housing purposes excluded renegotiated amounts dropped by 34.7% from one year earlier reflecting the impact of the COVID-19 pandemic in the housing-mortgage market.

Mortgage rates for new loans 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 and further to 2.12% in 2019. Mortgage lending rates continued to drop in the first half of 2020 but more slowly.

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 4.6 bn at the end of 2019 compared with EUR 5.2 bn at the end of 2018. Non-performing exposures of the household sector were EUR 13.1 bn at the peak in early 2015. The non-performing exposure ratio dropped to 35.2% of gross loans at end-2019 from 37.7% in 2018. 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 46.7% at the end of 2019 and a high ratio of restructured facilities in non-performing exposures, of 44.6% of the non-performing exposures of the household sector.

NON-MARKET LED INITIATIVES

The property market in Cyprus is being affected by tax and legislative changes. The property tax payable was reduced in 2016 and abolished in 2017. It has not been re-introduced since then.

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

As part of policies to attract foreign investors through the 'Scheme for Naturalisation of Investors in Cyprus by Exception', the Council of Ministers in March 2014 established relevant new financial criteria. The scheme remained in place with its financial criteria periodically revised. Generally, the scheme led to a substantial increase in foreign demand for property since 2016. 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.

To aid low-income households with non-performing loans and primary homes as collateral, the government introduced a subsidy programme named ESTIA, in July 2019. Eligibility was subject to specific income criteria.

In March 2020, in response to the COVID-19 pandemic the government introduced a series of measures that indirectly had a bearing on the mortgage market. A moratorium was introduced on loan repayments including on mortgages, for a nine-month period ending in December 2020.

MORTGAGE FUNDING

Bank funding in Cyprus is primarily from customer deposits. Funding conditions are comfortable as reflected in the gross-loans (not including provisions), to deposits ratio at 69.1% at the end of 2019. 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.

In 2011 EUR 5.2 bn in mortgage backed covered bond have been issued which in 2019 amount to EUR 650 mn.

	CYPRUS 2018	CYPRUS 2019	EU 27 2019
MACROECONOMIC VARIABLES			
Real GDP growth (%) (1)	5.2	3.1	1.5
Unemployment Rate (LSF), annual average (%) (1)	8.4	7.1	6.7
HICP inflation (%) (1)	0.8	0.5	1.4
HOUSING MARKET			
Owner occupation rate (%) (1)	70.1	n/a	69.9*
Gross Fixed Investment in Housing (annual change)(1)	16	23.9	3.3
Building Permits (2015=100) (2)	127.8	144.0	122.0
House Price Index – country (2015=100) (2)	101.3	103.3	125.5**
House Price Index – capital (2015=100) (2)	99.4	100.9	129.5**
Nominal house price growth (%) (2)	1.6	n/a	5.9**
MORTGAGE MARKET			
Outstanding Residential Loans (mn EUR) (2)	8,670	8,605	5,904,991
Outstanding Residential Loans per capita over 18 (EUR) (2)	12,463	12,177	16,165
Outstanding Residential Loans to disposable income ratio (%) (2)	62.7	60.1	62.9
Gross residential lending, annual growth (%) (2)	20.7	0.6	9.6
Typical mortgage rate, annual average (%) (2)	2.4	2.1	2.3**

* The aggregate EU figure is from 2018.
** Please note that this value is the simple average of the available values in 2019.

Sources:
(1) Eurostat
(2) European Mortgage Federation - Hypostat 2020, 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.

Czechia

By Martin Kotek, Komerční Banka

IN A NUTSHELL

- → Mortgage market was partially hit by regulation of income indicators DTI and DSTI and by on-going growth of Real estate prices.
- → Real estate prices continued to grow significantly because of shortage in supply and because of being interesting investment opportunity.
- → Generally good macroeconomic situation and consumer sentiment helped to protect the mortgage market against significant drop.

MACROECONOMIC OVERVIEW

Despite slower global growth with geopolitical uncertainty and weakening external demand, the domestic economy remained strong thanks to household consumption, still-tight labour market conditions and a high level of consumer confidence. Inflation exceeded 3% at the end of the year. External risks led the central bank to noticeably tighten monetary policy and normalise interest rates. While the reference rate of the Czech National Bank was increased five times during 2018, it was raised only once in 2019, to 2.0%. Meanwhile, the exchange rate remained relatively stable.

External developments were unfavorable for the export-oriented economy. The global economy slowed in the face of increasing uncertainties, especially geopolitically. Exports were hit by the recession in German industry, which has been slipping continuously since mid-2018.

Car production was particularly under pressure, which in December 2019 recorded a double digit drop y-o-y, resulting, however in only 0.7% drop for the year overall. For the first time after five years of growth, industrial production fell (by 0.5%). This deterioration is shown by a 1.1% reduction in employment. Unemployment averaged 2.0%.

GDP grew by 2.4% after expanding by 2.8% in 2018. The slowing was more significant in the second half, and especially in the final quarter.

HOUSING MARKETS

The situation in then real estate market did not change in 2019. Real estate prices continued to grow (by 9%), although figures from the beginning of the year indicated a slowdown of growth. The main driver of price growth remains the same – a shortage of residential real estate due to insufficient housing starts and completions, especially in selected regions, although there is an improvement in this compared to previous years.

The worst situation remains in Prague, where the number of new houses does not track the growth in the number of inhabitants. There is missing clear housing strategy for following years which causes uncertainty of the developer companies. Smaller municipalities close to big cities are increasingly attractive for people working in the city, increasing prices also in these regions, for example, real estate prices in selected regions exceeded that in Prague (although from a significantly lower base).

Number of transactions on real estate market stagnated and remains on a significantly lower level than 4 – 6 years ago. As there is shortage of residential real estate on the market, people are increasingly looking for land (also without necessary networks) and recreational houses and cottages. Prices are also influenced by investment demand.

Many people buy a second dwelling as an investment opportunity with the expectation of rental income. The expansion of Airbnb increases the opportunities for short-term leases and a stable flow of tenants.

MORTGAGE MARKETS

MARKET DYNAMICS

In 2019 the mortgage market decreased both in number and volume of sold mortgages. The final y-o-y decrease was 10% which was lower than expected due to positive developments in the second half of the year, sales in last quarter were comparable with Q4 2018.

There were 2 factors behind this slowdown:

- The negative impact of regulation of income ratios (DTI and DSTI) by the Czech National Bank (CZ central bank) which came into force in October 2018, but fully impacted production only in the beginning of 2019, and
- interest rates, that were the highest in the beginning of the year (about 2.8%) but thanks to development of funding cost of funds decreased to the around 2.3% at the end of the year.

Just the regulation was the key factor determining mortgage market development. In 2019 there were effective caps on:

i) LTV (a maximum of 90% for any mortgage plus a limit of 15% of a bank's mortgage sales were allowed to be between 80% and 90%),

ii) Debt to income (DTI) (max. 9) and

iii) Debt Service to income ratio (DSTI) (max. 45%).

These regulations along with the rapidly growing prices of residential real estate made financing of housing more difficult. Many consumers used additional collateral and/or co-debtor to meet these rules.

Due to the strong economy and ongoing confidence many borrowers were able to conform with the new regulations, a fact that has underpinned the level of mortgage origination.

Positive consumer expectations continued in Q1 2020 and resulted in sales figures that significantly exceeded those for Q1 2019.

NON-MARKET LED INITIATIVES

No non-market initiatives that might change the market were anticipated in 2020.

However in response to COVID-19 many changes were introduced, in April 2020 the limit on LTVs between 80% - 90% was cancelled and 5% of mortgages were allowed to be above 90% LTV. The DTI limit was cancelled and the DSTI cap was increased to 50%, before being cancelled in June.

Also, the government has agreed to cancel the real estate transfer tax paid by the buyer for 4% of the real estate value.

	CZECHIA 2018	CZECHIA 2019	EU 27 2019
MACROECONOMIC VARIABLES			
Real GDP growth (%) (1)	2.8	2.6	1.5
Unemployment Rate (LSF), annual average (%) (1)	2.2	2.0	6.7
HICP inflation (%) (1)	2.0	2.6	1.4
HOUSING MARKET			
Owner occupation rate (%) (1)	78.7	78.6	69.9*
Gross Fixed Investment in Housing (annual change)(1)	6.9	5.5	3.3
Building Permits (2015=100) (2)	106.3	109.4	122.0
House Price Index – country (2015=100) (2)	127.7	139.1	125.5**
House Price Index – capital (2015=100) (2)	131.6	n/a	129.5**
Nominal house price growth (%) (2)	9.8	8.9	5.9**
MORTGAGE MARKET			
Outstanding Residential Loans (mn EUR) (2)	43,984	48,658	5,904,991
Outstanding Residential Loans per capita over 18 (EUR) (2)	5,078	5,609	16,165
Outstanding Residential Loans to disposable income ratio (%) (2)	40.3	42.1	62.9
Gross residential lending, annual growth (%) (2)	5.92	-9.91	9.6
Typical mortgage rate, annual average (%) (2)	2.5	2.6	2.3**

* The aggregate EU figure is from 2018.
** Please note that this value is the simple average of the available values in 2019.

Sources:
(1) Eurostat
(2) European Mortgage Federation - Hypostat 2020, Statistical Tables.

CZECHIA FACT TABLE

Entities which can issue mortgage loans:	In Czechia, housing finance is mainly raised by banks.
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 3/4 of the mortgage loans outstanding volume in Czechia.
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 in 2019 was the loan for house/flat purchase secured by financed property with interest rate fixation period 7 – 10 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 Czechia are the following: 1) Real Estate Transfer Tax (4% of purchase price) 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: • 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. • Support of establishing social housing for disadvantaged people due to their age or health.

Denmark

By Sandie Wrona, Finance Denmark

IN A NUTSHELL

→ All time high gross lending activity largely due to remortgage activity.
→ More than 75% of new mortgages have fixed interest rates, marking a steady growth from 2017 when new mortgage issuance with fix rates accounted for 50%.
→ Long-term bonds issued with coupon rates from -0.5%.

MACROECONOMIC OVERVIEW

The economy grew in real terms by 2.3% in 2019, 0.1 pp. less than in 2018. but 0.8 pp. higher than the average in the European Union. The GDP growth is mainly driven by private consumption growth of 2.3% and real gross total fixed capital formation growth of 5.1%. Also, exports of goods grew by 2.3%.

Employment and real wage growth continued to perform well in 2019 and have driven private consumption growth. Consumer prices increased by 0.7% in 2019, while labor cost rose by 1.8%. Employment increased by 1% in 2019 resulting in an employment rate of 78.4%. Unemployment slightly decreased, from 5.1% to 5.0%.

The Danish government recorded a budget surplus of 3.7% of GDP in 2019. Gross government debt was 33.2% of GDP, which is low in a European context. Denmark ran a current account surplus of 6.6% of GDP.

The deposit rate at the Danish central bank, Danmarks Nationalbank, remained at -0.65% as it has been for the past three years until it was reduced to -0.75% towards the end of 2019.

HOUSING MARKETS

The Danish housing market is characterised by a relatively low owner occupation rate, particularly larger cities. The rate was 60.8% by the end of 2019, a minor increase of 0.3 pp. over the year.

Nominal house prices increased by 2.8% (y-o-y) in 2019, slightly slower growth than in the previous year. House price increases are prevalent across the country, for both houses and owner-occupied flats which have been rising for some years. The increasing trend has especially been strong in bigger cities, where prices now have reached relatively high levels, and thus creating a ripple effect, that is increasing housing prices outside the bigger cities. After years of increasing prices in the Copenhagen area prices rose only 0.3% on detached and terraced houses and decreased by 0.6% on owner occupied flats. New regulations implemented in 2018 and uncertainty regarding implementation of new property taxes have influenced the activity level and price developments in the Copenhagen market.

In total, nearly 71,000 houses and owner occupied flat were sold in 2019, 3.3% more than in 2018. Both increasing housing prices and other developments in the real economy have continued to stimulate the transaction activity in all parts of the country. The number of transactions involving detached and terraced houses is up by 4.1% in 2019, and 1.2% more for owner occupied flats. The demographic movement away from the countryside remains an underlying demand factor favoring markets in larger cities.

Construction activity continued to be high in 2019, housing completions improved by 15.5% in 2019. Housing starts and number of building permits issued have dropped 9% and 16% from 2018. The fall is however happening from a high level in 2018 and the level is still above the historical average.

MORTGAGE MARKETS

MARKET DYNAMICS

By year end 2019, outstanding mortgage loans from mortgage banks amounted to DKK 2,858 bn (ca EUR 383 bn), of which app. DKK 1,660 bn (ca EUR 222 bn) was for owner occupied housing. On top of this housing loans for households from commercial retail banks amounted to DKK 272 bn (ca EUR 36 bn). In total mortgage credit growth was recorded at 2.8% in 2019, which is an increase compared to previous years. However, the mortgage credit growth remains modest, and still much lower than in the mid-2000's where growth rates were between 10% and 17%.

As in previous years an increasing proportion of new mortgages have fixed, rather than variable rates. Outstanding mortgage loans issued by mortgage banks are split between fixed rate mortgages (39.5% by year end 2019), adjustable rate mortgages with an interest rate cap (2.4 % by year end 2019), interest reset mortgages with interest reset under 1 year (30.4% by year end 2019) and interest reset mortgages with interest reset intervals above 1 year (30.1% by year end 2019).

Gross lending activity by mortgage banks increased significantly since 2018 and reached an all-time high in 2019. Total gross lending reached DKK 908.6 bn (ca EUR 122 bn). Residential mortgages were 61.2% of gross lending, slightly less than in 2018. Gross lending activity is up by approx. 90% compared to 2018. The significant increase can mainly be explained by the substantially higher level of remortgaging. Loans with a value of DKK 743 bn (ca EUR 100 bn) have been remortgaged in 2019, which is an increase of more than 100% from 2018. The high degree of remortgaging stems from interest rates falling to all-time low levels. Many borrowers have used their option to prepay their mortgage loans with higher interest rates by buying the underlying bonds in the market, and instead fund their property with a new mortgage loan with a lower interest rate.

30-year fixed rate mortgages were in the beginning of 2019 issued with an interest rate of 1.5%, which fell to 0.5% during the year before increasing to 1% in the end of 2019. Mortgages with interest rates fixed for 10 years were issued with an interest rate of 0.0% and -0.5%, and thus for the first time borrowers could fix the interest rate at zero or even -0.5% for 10 years.

The interest rates on short term mortgage loans continued to be low and decreased, such that investors received negative yields on the underlying bonds. The short-term interest rate to borrowers was on average 0.66% in 2019.

Fixed rate mortgages (typically fixed for 30 years) accounted for 76.9% of gross lending in 2019, an increase of 20 pp. compared to 2018. Adjustable rate mortgages and interest reset mortgages accounted for 22.6%, and adjustable rate mortgages with an interest rate cap accounted for 0.5% of gross lending in 2019.

NON-MARKET LED INITIATIVES

Legislation which came into force in the beginning of 2018 has affected the demand for mortgage loans with longer fixed rate periods. The new stricter requirements state that borrowers with a debt-to-income ratio above 4 in combination with a Loan-to-value ratio above 60% should have a fixed rate period of at least 5 years if they wish to pay interest only. Interest rates have been low for several years now, and other possible reasons for borrowers preferring fixed rate mortgages and mortgages with longer fixed rates could be borrowers' expectations of future interest rate increases. Also, the possibility to fix the interest rate to 0.5% or 1% in 30 years and thereby knowing the total cost of the loan may incentivise borrowers to choose fixed rate mortgages.

ANY FURTHER IMPORTANT EVOLUTION

Although not affecting the housing or mortgage market in 2019, the COVID-19 situation is expected to have a significant effect on the real economy in 2020 and in the years to come. However, and overall, the Danish housing and mortgage market have not been severely affected by COVID-19. First of all, the Danish mortgage banks were able to provide loans as usual during the lockdown in Denmark. The funding of the loans by covered bonds continued as normal, though with a temporary spike in interest rates. Furthermore, most homeowners were able to service their loans as a large part of Danish households was financially unaffected by the lockdown. Part of the reason for this, was the various stimulus measures introduced by the Government in the private sector shortly after lockdown. Measures such as salary compensation, compensation for turnover losses for self-employed and deferral payment deadlines for various taxes, VAT etc. limited demand for financial assistance to customers from banks.

As for households severely affected by the crisis, thousands have been offered help by their banks. While Denmark does not have public moratoria programs, nor privately organised programs, Danish banks and the Danish Government issued a mutual statement of intent stating that customer help is systemically crucial and much needed and with a commitment to support bank customers in temporary financial problems due to COVID-19.

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 – adjust continually according to borrower 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 December maturities for the past years, spreading refinancing activity and hence the refinancing risk more evenly across the year. In December 2019, the shortest bullet bonds with 1 year maturity were sold at an interest rate of -0.53%. Over the course of 2019, long-term callable bonds, which fund fixed rate mortgages, were issued with coupons of 2%, 1.5%, 1.0% and 0.5% matching the rate on the loans.

GREEN FUNDING

Danish mortgage and commercial banks fully support the transition to a sustainable economy and fully acknowledge the financial sector's role and responsibility in underpinning this transition. Several mortgage and commercial banks have issued green bonds which fund green activities such as energy efficient buildings. And in 2019 Danish mortgage and commercial banks financed green assets with a value of more than DKK 400 bn (ca EUR 54 bn), the majority funding properties with EPC label A or B. Also, banks and mortgage lenders engage to a higher degree in dialogues with their customers about possible energy improvements when choosing property financing.

The Danish mortgage and commercial banks have been following and contributing to the work on the development of the EU Taxonomy, and especially on the taxonomy regarding buildings. Covered bonds are one of the largest asset classes in Europe. It is imperative to successfully on-board the asset class into the green asset space as covered bonds have the capacity to fund a lion's share of the green transition.

	DENMARK 2018	DENMARK 2019	EU 27 2019
MACROECONOMIC VARIABLES			
Real GDP growth (%) (1)	2.4	2.4	1.5
Unemployment Rate (LSF), annual average (%) (1)	5.1	5.0	6.7
HICP inflation (%) (1)	0.7	0.7	1.4
HOUSING MARKET			
Owner occupation rate (%) (1)	60.5	60.8	69.9*
Gross Fixed Investment in Housing (annual change)(1)	5.3	6.1	3.3
Building Permits (2015=100) (2)	147.8	123.6	122.0
House Price Index – country (2015=100) (2)	112.8	116.0	125.5**
House Price Index – capital (2015=100) (2)	122.8	125.5	129.5**
Nominal house price growth (%) (2)	4.1	2.8	5.9**
MORTGAGE MARKET			
Outstanding Residential Loans (mn EUR) (2)	251,705	258,799	5,904,991
Outstanding Residential Loans per capita over 18 (EUR) (2)	54,532	55,707	16,165
Outstanding Residential Loans to disposable income ratio (%) (2)	170.3	173.3	62.9
Gross residential lending, annual growth (%) (2)	-3.8	90.5	9.6
Typical mortgage rate, annual average (%) (2)	0.8	0.7	2.3**

* The aggregate EU figure is from 2018.
** Please note that this value is the simple average of the available values in 2019.

Sources:
(1) Eurostat
(2) European Mortgage Federation - Hypostat 2020, 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 mn (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 Kaire Husu, Luminor Group

IN A NUTSHELL

- → Strong GDP growth of 4.3%, with Information and Communication Services as the main contributor to the increase.
- → Housing and mortgage markets continued to grow, outstanding housing loans increased by 6.8%.
- → Housing prices grew in line with the development of the economy.
- → Although deposits continued to be the main funding, new sources of funding such as covered bonds and unsecured bonds are now being used.

MACROECONOMIC OVERVIEW

Prior to the lockdown imposed following the spread of COVID-19, the Estonian economy was on an upward although decelerating growth path. In real terms, Estonia's GDP grew by 4.8% in 2018 and by 4.3%. The growth was broadly based with exports expanding by 5.2% following 4.3% in 2018. Household consumption expanded by 3.2% in 2019 (4.3% in 2018). An unexpectedly strong contribution to the growth came from agricultural sector. Industry suffered both structural and cyclical setbacks in 2019 with oil shale energy losing competitiveness and overall foreign demand weakening as trading partners entered a decline phase of the business cycle and business confidence declined global.

For the first time, ICT plus Science and technology branch contributed altogether remarkable half of the economic growth in 2019. Estonia's growth has remained among the fastest in the euro area. Average growth in the last three years (2017-19) averaged 8.9% in market prices (5.0% real growth), placing the country with strong Nordic ties among the fastest growing economies in the euro area.

Robust growth has resulted in tight labour markets and inflation pressures. Unemployment decreased further to to a meagre 4.4% (from 5.4% in 2018), well below the Euro area average level.

While inflation remained in 2019 at 3.4% (at the same level as the year before) affected mostly by elevated energy and food prices with strong domestic demand supporting services prices.

Government maintained a small deficit of 0.3% of GDP in 2019 (following 0.6% in 2018), resulting mainly from the central government and less the local governments balance. With a long history of close to balanced budgets since regaining independence in 1992 gross debt remains remarkable low at 8.4% of GDP in Q4 2019. This compares to 90% for Euro-area as the average.

Overall, the evolution of the economy was positive, with significant GDP growth, decreasing unemployment, low debt levels and moderate price evolution. It is expected that in 2020 the economy will be impacted by the lockdowns due to COVID-19.

HOUSING AND MORTGAGE MARKETS

HOUSING MARKET

The housing market continued to perform well in 2019. It maintained its strong momentum largely as a result of the strong economy developments and low interest rates. Supply and demand continued to increase, consequently the market continued to grow, as evidenced by the fourth consecutive year of expansion of the new constructions market. More building permits were issued for building residential property.

At the end of 2019, Estonia had 724,000 dwellings.

Construction volume increased by 2%, the eighth consecutive year of growth. The number of completed dwellings was 7,014 units, an annual growth of almost 8%. The number of permits issued in 2019 increased compared to the previous year. The number of transactions decreased by 0.2% compared to 2018 and amounted to 59,188. In the capital, Tallinn the number of transactions increased by 0.9% in 2019.

Housing prices were in general in line with the development of the economy. Property prices have in-creased in the last three years marginally faster than the average of the euro area. In Estonia, the Euro-stat house price index exceeded the pre-crisis level of 2007 by ca 20 pps in Q3 2019. Property investments have over the last decade contributed to the net worth of Estonian citizens more than any other asset class. Property investments have over the last decade contributed to the net worth of Estonian citizens more than any other asset class. However, the financial assets accumulated by Esto-nian citizens remain modest compared to the high (ca 80%) property ownership rate.

Following the general trend and the development of the market, the price of dwellings also grew at a higher pace than in previous years. The price of apartments increased by 6.9% and of houses by 7.3% (average 7.0%). Apartment prices grew by 7.4% in Tallinn, by 6.4% in the area surrounding the capital including the cities of Tartu and Parnu, and by 4.9% in the rest of the country. These price increases were mainly due to the low interest rate environment, rising income and the attractiveness of the market for investors.

MORTGAGE MARKETS

In a well-balanced macroeconomic environment, with a developing housing market, the Estonian mortgage market has also performed positively. The market grew by 7% to EUR 8,119, an historical high, equal to 29.0% of GDP in 2019. Likewise, gross new residential lending grew by 6.4%.

The mortgage market consists mainly of commercial banks, with the three largest in terms of market share being: Swedbank, SEB Bank and Luminor Bank. In their portfolios on average housing loans account for approx. 40% of the loans to the non-financial sector, above the EU average. The importance and volume of this type of loan reflects the preference of households for homeownership over renting and the concentration of the domestic market.

The average interest rate payed by households on these loans has decreased to an average of 2.54%.

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%.

NON-MARKET LED INITIATIVES

Non-market led initiatives are focused on promoting house affordability. In Estonia there is no general rent control that affects all apartments, however, some apartments are owned by the local government and benefit from a subsidy. Also the government has 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 2019. 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 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 2019 the legislation on covered bonds has been adopted by the Parliament.

Luminor continues to fund itself mainly from deposits, though it has steadily increased its independence from its former parent banks and turned to other sources of funding (ca 8% of funding are issued bonds at the end of 2019). In March 2020, Luminor issued a covered bond for EUR 500 mn backed by Estonian mortgages. The first issue took in funds with a negative interest rate.

	ESTONIA 2018	ESTONIA 2019	EU 27 2019
MACROECONOMIC VARIABLES			
Real GDP growth (%) (1)	4.8	4.3	1.5
Unemployment Rate (LSF), annual average (%) (1)	5.4	4.4	6.7
HICP inflation (%) (1)	3.4	2.3	1.4
HOUSING MARKET			
Owner occupation rate (%) (1)	82.4	n/a	69.9*
Gross Fixed Investment in Housing (annual change)(1)	2.6	18.0	3.3
Building Permits (2015=100) (2)	125.1	143.6	122.0
House Price Index – country (2015=100) (2)	117.4	124.9	125.5**
House Price Index – capital (2015=100) (2)	n/a	n/a	129.5**
Nominal house price growth (%) (2)	6.2	6.4	5.9**
MORTGAGE MARKET			
Outstanding Residential Loans (mn EUR) (2)	7,603	8,119	5,904,991
Outstanding Residential Loans per capita over 18 (EUR) (2)	7,125	7,585	16,165
Outstanding Residential Loans to disposable income ratio (%) (2)	53.6	53.6	62.9
Gross residential lending, annual growth (%) (2)	9.0	6.4	9.6
Typical mortgage rate, annual average (%) (2)	2.6	2.5	2.3**

* The aggregate EU figure is from 2018.
** Please note that this value is the simple average of the available values in 2019.

Sources:
(1) Eurostat
(2) European Mortgage Federation - Hypostat 2020, 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 quite weak, and this year LHV Pank acquired private loan portfolio from Danske Bank and therefore increased its market share in the mortgage market.
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 Mariia Somerla, Finanssiala

IN A NUTSHELL

→ Construction market cooling down
→ Housing price levels fairly stable
→ New macroprudential tools under consideration for household debt

MACROECONOMIC OVERVIEW

GDP grew by 1.0% in 2019 and now exceeds the previous peak, prior to the 2008 financial crisis. In the demand class, investments decreased by 0.8%, exports grew by 7.2% and private consumption expenditure – the biggest demand item – grew by 0.6%.

Household consumption increased as employment rose to 72.6% and wages and salaries grew by 3.1%. Households' savings ratio was 0.6%.

Because of the slowdown in economic growth, the general government deficit increased to 1.1% of GDP.

HOUSING MARKET

The majority of Finns (72%) live in homes that they own. More than half of those households have a housing loan. Around one third of households (28%) rent their houses, 14.8% of them at reduced rates due to government subsides and 13.6% at market rates.

The average size of an outstanding mortgage is EUR 98,735, of a new mortgage EUR 150,400 in the whole country, (EUR 181,400 in greater Helsinki, EUR 139,000 elsewhere). A typical maturity for a new housing loan is 25 years and an average maturity is 20.4 years.

In 2019 the housing market cooled down slightly, which is reflected by the number of new housing permits has decreased by over 8% reaching around 37,700. However, the previous years' large number of housing starts will keep the number of completed houses high for a while. In 2018, bulding permits were granted for good 43,600 dwellings. The highest number measured since 1995 during the history of the current statistics was in 2017, slightly under 49,100 dwellings. In 2019, there were 39,110 new housing starts, a 14% decrease y-o-y. Housing completions increased by 2.1% in the same period. It is expected that the levels will come down to a more moderate level.

Strong polarisation continued, with big cities attracting more, especially young people, from rural areas, and also most immigration, both of which are reflected in to house prices. In Helsinki metropolitan area, prices rose 3.4% y-o-y, while in the rest of Finland they went down by 0.6%. This averaged an increase of 0.9% for the whole country. In many rural areas the housing market is at a standstill and the transactions are almost non-existent.

At the end of 2019, the average price per square meter for existing dwellings was EUR 2,077 (+0.7% y-o-y) in the whole country, EUR 3,719 (+2.4% y-o-y) in Helsinki metropolitan area and EUR 1,595 (-1.1% y-o-y) elsewhere.

MORTGAGE MARKET

MARKET DYNAMICS

New housing loans increased by 6.0% relative to 2018. At the end of 2019, the total housing loans were EUR 100.4 bn (48.2% of GDP) a growth of 2.6%.

Repayments on housing loans were made for a total of EUR 14.2 bn in 2019. Amortisations grew by 1.1% y-o-y. Housing loans have amortised faster than in previous years, as low interest rates cause a larger proportion of principal in the instalments of constant payment loans – which make up about 40% of the total 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 97% of new loans are linked to Euribor, most often to 12-month rate. Due to the low level of Euribor indices, interest rates on housing loans are lower than average for the euro area at 0.76% at year end, an all-time low.

Households' debt-to-income ratios rose and was 127,2% at the end of the year, low compared to other Nordic countries but above the EU average. Therefore, discussion about household indebtedness continues and new macroprudential tools – such as a ceiling for Debt-to-Income ratios and maximum maturities for mortgages – are being considered. The growth rate of debt is moderate, but the overall level of debt concerns authorities such as the Finnish-FSA, the national CB and the Ministry of Finance. The government is expected to present it's legislative proposal in spring 2021.

NON-MARKET LED INITIATIVES

The Finnish-FSA will continue the application of a risk-weight floor for mortgage portfolios in banks which use internal ratings-based (IRB) approaches for credit risk. The 15% floor came into effect in January 2018 and will expire at the end of 2020.

The loan cap (maximum limit for loan-to-collateral ratio, LTC) tool for residential mortgages 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, the FSA decided to tighten the rule: the first-time buyer's cap remained the same, but for others it was lowered to 85%. The decision entered into force in July 2018.

Furthermore, a systemic risk buffer requirement was added in July 2019 to target long-term, non-cyclical risks to the financial system. Indicators include household indebtedness among others. According to the FSA's assessment, Finland's credit institution sector is concentrated and, after the transfer of Nordea's domicile, also very large compared to the size of the economy.

In addition, it is also closely interconnected with the financial systems of the other Nordic countries. The buffer requirement is 1.0% for smaller institutions and between 1.5-3.0% for larger banks. Because of the COVID-19 pandemic the requirement was abolished in March 2020 in order to support the lending activity of banks.

Non-performing loans remained on a low level and comprised 1.7% of total loans.

MORTGAGE FUNDING

Although deposits from households are the largest single source of funding for domestic banks, the sector's funding is also heavily dependent on market funding. Market-based funding accounted for 53% of the total funding after Nordea's domicile to Finland. However, the dispersion is high between credit institutions: some fund their operations almost entirely with deposits, whilst others, especially mortgage credit institutions, only issue covered bonds. The ratio of loans to deposits was 158% at the turn of the year, the same as a year earlier. The EU average is 116%.

In Finland, there is no active RMBS market.

	FINLAND 2018	FINLAND 2019	EU 27 2019
MACROECONOMIC VARIABLES			
Real GDP growth (%) (1)	1.6	1.0	1.5
Unemployment Rate (LSF), annual average (%) (1)	7.4	6.7	6.7
HICP inflation (%) (1)	1.2	1.1	1.4
HOUSING MARKET			
Owner occupation rate (%) (1)	71.6	71.1	69.9*
Gross Fixed Investment in Housing (annual change)(1)	4.5	-2.1	3.3
Building Permits (2015=100) (2)	128.5	117.9	122.0
House Price Index – country (2015=100) (2)	103.0	103.9	125.5**
House Price Index – capital (2015=100) (2)	122.8	126.9	129.5**
Nominal house price growth (%) (2)	1.0	0.9	5.9**
MORTGAGE MARKET			
Outstanding Residential Loans (mn EUR) (2)	97,781	100,354	5,904,991
Outstanding Residential Loans per capita over 18 (EUR) (2)	21,989	22,502	16,165
Outstanding Residential Loans to disposable income ratio (%) (2)	73.2	72.9	62.9
Gross residential lending, annual growth (%) (2)	9.6	-0.8	9.6
Typical mortgage rate, annual average (%) (2)	0.9	0.7	2.3**

* The aggregate EU figure is from 2018.
** Please note that this value is the simple average of the available values in 2019.

Sources:
(1) Eurostat
(2) European Mortgage Federation - Hypostat 2020, 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 25% (in 2019).

France

By Patrick Stocker, Féderation Nationale du Crédit Agricole

IN A NUTSHELL

- → Context of reforms (retirement) and ongoing social tension (yellow jackets) over the course of the year, finally have little impact on real estate market.
- → Record level of transactions on existing properties and their price increases. Level of new property construction was high but below expectations.
- → Key role of low interest rates for the housing market.
- → Mortgage market remained dynamic. Low-risk, non-performing loans remained low.

KEY ECONOMIC INDICATORS

GDP growth slowed to 1.5% (from 1.8% in 2018). The biggest contributors to this growth were increased investments (up 4.1%) and in household consumption (up 1.2%). Inflation slowed to just 1.1% and unemployment fell 0.7 points but remains high at 8.1% at year end.

Public finance had a deficit of 3% in the year, up from 2.5% in 2018, with the increase more than explained by the introduction of a tax credit for employment and competitiveness (CICE) which contributed 0.9 points to the deficit.

HOUSING AND MORTGAGE MARKETS

Supported by continued low interest rates, the housing market remained at record levels in 2019 especially for existing homes.

Overall, new building activity remained at a very high level with a slight slowdown of housing starts (411,000 vs 418,000); 447,000 building permits were issued in 2019 versus 455,000 in 2018.

Some trends which are worth noting :

- Social housing was affected by government measures, but authorisations of subsidised dwellings stayed at the same level (109,000) which was better than expected. Many "HLM" companies (companies with a special status in charge of building and managing low-income dwellings) are being forced to merge or to regroup.
- Building by Real estate developers remained dynamic (130,000 in 2019 vs 128,000 in 2018 +0.3% compared to 2018) well above the historic trend. The sector is solid with a very low number of unsold properties, most of them unfinished. Construction in some areas is especially dynamic (for example, Paris, Bordeaux and Rennes). Real estate developers complain about the lack of affordable land and difficulties obtaining permits. Therefore, the demand for new dwellings is higher than the number of dwellings that the developers are able to supply.
- Individual house builders were slightly up (5%) at 125,600 units far from record levels (189,000 units per year). Public policies are no longer supporting this sector for ecological reasons (consumption of land, households forced to use cars vs public transportation).

A new record number of transactions was registered in the existing home market (1,065,000 in 2019 vs 966,000 in 2018, +10.7%). This is well above the last peak of 2004-2006 (825,000). Prices increases accelerated by 3.8% nationally, but by 9.3% in Paris intra-muros. Some cities had equal or higher price increases than Paris, revealing tension in large cities and attractive areas (i.e. 11.6% in Lyon).

There was a limited return of institutional investors especially in specialised segments, such as intermediate housing (due to a public scheme), or senior residences. New concepts of senior residences are being introduced with different levels of services depending on the age, the level of dependence, the income of residents and the localisation of the residence. Investors in this sector were looking for security and a higher return than that available on public bonds.

HOUSE LOANS MARKET

In 2019 there was a continued high level of home-loan origination, explained by the performance of the real estate market and the level of interest rates that remained low through the year (1.12% fixed). These low interest rates were due to low market rates and competition between banks.

Credit institutions have maintained affordable financing conditions by allowing longer repayment periods (new record, up to 19 years) and higher Loan to Value ratios.

REGULATION

The rapid growth of house loans (more than 6.8% in 2019) has triggered concern from French bank regulators. After the two "buffers" of equity added in 2018, the HCSF (Haut Conseil de Stabilité Financière), a body under the auspices of the French Minister of the Economy and managed by the Banque of France, issued new standards in December for house loans, requiring banks to limit repayment duration to 25 years and Loan to Income ratio to 33%. However, the HCSF allows up to 15% of loans from any given lender to fall outside these limits.

Banks, supported by real estate professionals and loan brokers reacted strongly. Beside technical debate about how these ratios should be harmonised and calculated, they stressed the impact these decisions will have on the mortgage market and by consequence on the real estate market.

Banks argue that the quality of lending is solid, with low and stable levels of NPL (Non performing loans), and over-indebtedness is decreasing. Borrowers, in almost all cases, are protected by insurance covering accidents and health problems; interest rates are fixed through the duration of the loan in over 99% of the cases.

The HCSF recommendations are in addition to numerous ECB inspections, EBA prospective Guidelines and the prospect of implementation of new Basel regulations.

Another problem is arising with very low interest rates: the question of usury rates is becoming crucial. This definition of usury rates was set up in the 1960s when interest rates were much higher. A rate is considered usury when it is 33%

above the average APRC (Annual Percentage Rate of Charge) of the preceding trimester. A small increase of interest rates during the following trimester or a costly insurance may signal the loan as "unjustifiably usury".

DISTRIBUTION

Banks are investing heavily in digitalisation to allow a 100% on-line process from before sale to offer. Electronic signatures of house loans are becoming standard. New players, (digital banks) have entered the market, with a limited effect for the time being, but are reinforcing competition on non-complex files and up-market customers.

The new public scheme, based on the community land and trust principle (separation of ownership of the land and ownership of the building), has started to be developed by numerous cities with the creation of an OFS (Office Foncier Solidaire) whose function is to acquire and lease land. Volumes are still low but are expected to grow in the coming year.

MORTGAGE FUNDING

In France mortgages are mostly funded through deposits with around 20% funded through mortgage-backed covered bonds.

GREEN

The government is urging banks to encourage their customers to make the necessary transformations to reduce energy consumption and reorient their energy consumption to decarbonised forms. The 0% loans dedicated to energy saving works were simplified in order to make it more attractive to customers and easier for banks and contractors.

Public money for energy efficient renovation is now reoriented to lower income households.

	FRANCE 2018	FRANCE 2019	EU 27 2019
MACROECONOMIC VARIABLES			
Real GDP growth (%) (1)	1.8	1.5	1.5
Unemployment Rate (LSF), annual average (%) (1)	9.0	8.5	6.7
HICP inflation (%) (1)	2.1	1.3	1.4
HOUSING MARKET			
Owner occupation rate (%) (1)	65.1	n/a	69.9*
Gross Fixed Investment in Housing (annual change)(1)	2.4	2.4	3.3
Building Permits (2015=100) (2)	112.4	110.3	122.0
House Price Index – country (2015=100) (2)	108.3	112.4	125.5**
House Price Index – capital (2015=100) (2)	119.7	130.8	129.5**
Nominal house price growth (%) (2)	3.2	3.8	5.9**
MORTGAGE MARKET			
Outstanding Residential Loans (mn EUR) (2)	1,009,562	1,078,000	5,904,991
Outstanding Residential Loans per capita over 18 (EUR) (2)	19,323	20,547	16,165
Outstanding Residential Loans to disposable income ratio (%) (2)	68.6	70.7	62.9
Gross residential lending, annual growth (%) (2)	-1.9	14.4	9.6
Typical mortgage rate, annual average (%) (2)	1.4	1.3	2.3**

* The aggregate EU figure is from 2018.
** Please note that this value is the simple average of the available values in 2019.

Sources:
(1) Eurostat
(2) European Mortgage Federation - Hypostat 2020, 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 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, vdp

IN A NUTSHELL

- → Economic growth slowed in 2019, but 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 loans outstanding follow a steady upward trend.
- → While the effects of the COVID-19 pandemic on the overall economic development are already clearly visible, the consequences for the residential real estate market are likely to become apparent only after a time lag.

MACROECONOMIC OVERVIEW

In 2019, the German economy performed below expectations. Over the year as a whole, real gross domestic product (GDP) rose by 0.6%, following a gain of 1.4% in the previous year.

Economic development in Germany in 2019 was split in two: the services and construction sectors recorded strong growth while the manufacturing industry (excluding construction) declined very significantly.

The strongest growth was recorded in the construction industry (+4.0%), information and communication services and financial and insurance services also showed above-average growth of +2.9% each. In contrast, there were strong declines in large parts of industry: economic output in the manufacturing sector excluding construction, which accounts for a quarter of the overall economy, fell by 3.6%. Weak production in the automotive industry in particular contributed to this.

Nevertheless, there were some positive trends: employment rose strongly again and unemployment fell to its lowest level since 1989, employment in Germany has been increasing steadily for 14 years. While job vacancies are still growing, the unemployment rate fell continuously and reached its 30 years low at 3.2% in 2019 (2018: 3.4%). Consumer prices increased by 1.4%.

The German Institute for Economic Research (DIW) sees Germany in the deepest recession in post-war history. Compared to 2019, gross domestic product is expected to fall by 9.4% in 2020. The forecast is based on the assumption that the spread of COVID-19 can be contained in the long term. If this is successful, economic output will expand again from the third quarter onwards as a result of the easing, but only very slowly. Despite the emergency aid measures for companies, a rapid recovery and a continuation of the economic development of the past ten years cannot be expected without further action. The losses will by no means be made up for in the coming year – from today's perspective, the German economy should then grow by 3.0%. The German government's recently adopted economic stimulus package is providing tangible support for the economy. If it is implemented in this way, the economic slump this year could be less severe and the recovery could be stronger next year.

HOUSING MARKET

Prices of residential properties increased in 2019. The vdp property price index for single family houses rose by 7.0% and for condominiums by 5.9%. The index for owner occupied housing, which is based on these two indices, increased by 6.8%. In the 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 3.9%, thus following the trend already observed in recent quarters: price growth is continuing, but steadily weakening.

A total of 293,000 dwellings were completed in 2019. Whilst this is the highest level since 2002, it is below expectations and only slightly higher than 2018. The slight growth was accompanied by structural shifts between new single-family and multi-family houses. While completions of single-family houses remained constant, the number of completed apartments in multi-family houses increased by 6.0%. Building permits rose by 3.9% and a considerable number of dwellings have not yet been started or are still under construction. This means that the number of completions could also increase in 2020, provided that the COVID-19 pandemic does not adversely affect construction.

In contrast to new constructions, sales of existing residential real estate remained stable. In total, 580,000 single- and two-family houses, multi-family houses and condominiums changed owners in 2019, +1.6% than 2018. The sale's value rose (+9.0% y-o-y) due to the increase in prices.

In view of the economic consequences of the COVID-19-related restrictions on public life and economic activities, the prospects for the real estate market as a whole have become much gloomier, although the extent to which the individual sub-markets are affected differs. The housing market is still the least affected as the potential demand is still high. The expectations of private households regarding their income are decisive for demand. These depend largely on how strongly the recession impacts the labour market. If there is a prolonged recession with a sharp rise in unemployment figures, demand can be expected to fall in the further course of the year and in the coming year. If, on the other hand, the cut is short and its effects limited, demand on the residential property market is likely to remain generally high.

MORTGAGE MARKET

The growth of construction and the total value of transactions of residential property has caused increasing residential mortgage lending for several years. In 2019, gross residential lending rose to EUR 245.0 bn (+7.6% y-o-y). The volume of residential loans outstanding rose to EUR 1,530 bn, an increase of +5.8% on 2018.

Growth in mortgages reflects the high demand for houses and apartments. The underlying conditions for home-buying continued to be favourable in recent years and are attributable, not least, economic growthand expansive ECB monetary policy since 2010. As mentioned above, the positive labour market situation leads to sustained growth in positive household income. In addition, financing conditions are increasingly favourable. The interest rate (effective interest rate, averaged across all interest rate fixed periods) for loans for house purchases fell

– with occasional 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 2019, the average interest rate for a residential mortgage loan fell further, averaging 1.52%.

The Association of German Pfandbrief Banks conducted a survey in 2019 of the structure of financing for owner-occupied houses and flats among member institutions. Based on current data, it obtained consistent information both with respect to previous data and also among member banks about purchase prices, use of borrowed funds and the debt burden for the financing of home ownership in Germany. This study builds on surveys conducted among Pfandbrief banks on this subject previously most recently in 2017.

The study shows that development of property prices has diverged from development of income in recent years. Prices for owner-occupied homes have risen significantly in relation to the disposable income of borrowers (ratio of property prices to income). This ratio reached a level in 2019 that was last seen in the 1990s.

As interest rates on housing loans have remained stable since 2015, the rise in property prices has increased the debt burden relative to disposable income in recent years following a long phase of steady decline, although it remained moderate from a long-term perspective in 2019.

The rise in prices and associated increase in financing requirements have also impacted the borrowed funds ratio. As rising property prices were mainly financed by extending the amount of the loan, the average borrowed funds ratio rose to over 80% for the first time in 2019. The fact that increased borrowing has led to only a moderate rise in the debt burden is due partly to slightly lower initial amortizations in mortgages originated in the last two years, so that with interest rates remaining almost constant, the annuity has fallen slightly in relation to the loan amount.

Several points make it clear that borrowers and lenders are continuing to focus on security. Firstly, the reduction in initial amortization and the rise in the debt burden ratio are only slight. Secondly, the results of the current survey indicate that lenders are paying very close attention to the appropriateness of the loan with respect to the borrower's financial capacity, in line with the Mortgage Credit Directive. This is illustrated by the fact that the debt burden ratio for home buyers with comparatively low incomes has not increased any further and that the borrowed funds ratio has declined compared with 2017.

MORTGAGE FUNDING

In Germany, the main funding instruments for banks for housing loans are 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. Mortgage Pfandbriefe exhibit rising outstanding amounts for many years, whereas public sector Pfandbriefe have declined.

Pfandbriefe worth EUR 55 bn were sold (in 2018 the figure was EUR 50 bn). Mortgage Pfandbrief issuance was EUR 42 bn (EUR 43 bn in 2018), and Public Pfandbriefe worth EUR 11 bn were issued (EUR 7 bn in 2018). Ship Pfandbriefe accounted for the remaining EUR 2 bn. The outstanding volume of Pfandbriefe declined to EUR 364 bn in 2019 (from EUR 369 bn in 2018), whereas the volume of outstanding Mortgage Pfandbriefe increased from EUR 233 bn in 2018 to EUR 240 bn in 2019. Public Pfandbriefe experienced a further decline from EUR 134 bn to EUR 122 bn. In 2019, Ship and Aircraft Pfandbriefe accounted for EUR 3 bn (EUR 2 bn in 2018).

GREEN FUNDING

An ESG (Environmental, Social and Governance) Pfandbrief was issued in Germany in 2014 for the first time (EUR 300 mio). Since then German Pfandbrief banks have been very active in both green and social lending as well as issuing Green and Social Pfandbriefe. Several Pfandbrief banks offer a discount to mortgage loans, if the building is an energy efficient one fulfilling pre-defined requirements. In 2019 Pfandbrief issuers under the umbrella of the vdp formulated minimum standards for Green Pfandbriefe (https://www.pfandbrief.de/site/en/vdp/agenda/sustainability/green-pfandbrief.html). These standards include requirements for the energy efficiency of financed buildings, based on the definition developed within the Energy Efficient Mortgage Initiative of the ECBC. The standards take account of the initiatives being formulated at EU level for the introduction of a "taxonomy" for sustainable economic activities and an EU Green Bond Standard. Moreover, the minimum standards oblige Pfandbrief banks to maintain a high degree of transparency. All issuers are required to have their own Green Bond Framework which must be based on the Green Bond Principles of the International Capital Market Association (ICMA). The Pfandbrief banks are committed to the goal agreed at the 2015 Paris Climate Conference of limiting global warming to 2 degrees centigrade.

At the end of 2019 the total amount of outstanding Green and Social Pfandbriefe is almost EUR 6 bn stemming from five issuers with a clear focus on Green Pfandbriefe.

	GERMANY 2018	GERMANY 2019	EU 27 2019
MACROECONOMIC VARIABLES			
Real GDP growth (%) (1)	1.5	0.6	1.5
Unemployment Rate (LSF), annual average (%) (1)	3.4	3.2	6.7
HICP inflation (%) (1)	1.9	1.4	1.4
HOUSING MARKET			
Owner occupation rate (%) (1)	51.5	n/a	69.9*
Gross Fixed Investment in Housing (annual change)(1)	3	4	3.3
Building Permits (2015=100) (2)	110.7	115.1	122.0
House Price Index – country (2015=100) (2)	120.7	128.8	125.5**
House Price Index – aggregate seven largest cities* (2015=100) (2)**	132.2	137.4	129.5**
Nominal house price growth (%) (2)	7.7	6.8	5.9**
MORTGAGE MARKET			
Outstanding Residential Loans (mn EUR) (2)	1,445,987	1,530,434	5,904,991
Outstanding Residential Loans per capita over 18 (EUR) (2)	20,879	22,045	16,165
Outstanding Residential Loans to disposable income ratio (%) (2)	69.5	71.3	62.9
Gross residential lending, annual growth (%) (2)	6.3	7.6	9.6
Typical mortgage rate, annual average (%) (2)	1.9	1.5	2.3**

* The aggregate EU figure is from 2018.
** Please note that this value is the simple average of the available values in 2019.
*** Aggregate index of the seven largest German cities.

Sources:
(1) Eurostat
(2) European Mortgage Federation - Hypostat 2020, 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:	81% (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 EUR 1,200 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 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, • 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 | Reviewed by Evangelia Papapetrou, Bank of Greece

IN A NUTSHELL

- GDP increased by 1.9% in 2019, (2018: 1.9% and 2017: 1.5%). In Q1 2020, GDP fell (-0.9%, y-o-y, seasonally adjusted data), due to COVID-19 pandemic lockdown. For 2020, the uncertainty about the broader implications in the domestic and global economy, create new conditions with potentially a downward impact on the Greek economy.
- 2019 was the second year of house price recovery after a 9 year long downturn. Apartments increased in price by 7.3% after a 1.8% rise in 2018, whereas, in the commercial property segment, prime retail rose by 7.0% against 4.6% in 2018 and prime offices by 4.2% (6.5% in 2018).
- The total stock of outstanding housing loans continued to decline by -3.4% in 2019 a rate which broadly remained unchanged in the first four months of 2020 (-3.3%).

MACROECONOMIC OVERVIEW

In 2017 **GDP grew**[2] by 1.5% after two years of shrinkage (2015: -0.4%, 2016: -0.2%) and increased further in 2018 and 2019 by 1.9% for both years. In 2019 growth was mainly due to exports of goods and services (4.8%), private consumption (0.8%) and government consumption (2.1%). Gross fixed capital formation rose by 4.7%. In Q1 2020, GDP fell by -0.9% due to COVID-19.

Investment in dwellings grew for a second consecutive year (2019: 12.1%, 2018: 17.2%), whereas **investment in construction** fell for a second consecutive year (2019: -1.9%, 2018: -18.4%), mainly due to contraction in 'other' construction i.e. excluding dwellings (2019: -4.6%, 2018: -22.9%). However, in Q1 2020, investment in construction increased marginally by 0.2%, y-o-y.

Unemployment fell to 17.3% on average in 2019 (2018: 19.3%, 2017: 21.5%).

As of September 1, 2019, all remaining restrictions in international payments and capital transfers abroad were fully lifted and the restoration of free capital movement in Greece is expected to have a positive effect on investor confidence in the Greek economy.

In 2019, **inflation (HICP)** remain positive at 0.5%, (2018: 0.8%, 2017: 1.1%), mainly due to decreases in indirect taxation and lower crude oil prices. In April 2020, inflation was 0.2% y-o-y. Recent measures due to COVID-19 pandemic are expected to be deflationary.

The **primary fiscal balance** as a percentage of GDP has improved by about 14% pp since the beginning of the sovereign debt crisis in 2010. The 2019 primary fiscal outcome was a surplus of 3.5% of GDP, in line with the target of the enhanced surveillance definition activated in 2018 by the EC for Greece. Due to the effect of COVID-19, the target according the enhanced surveillance will be missed in 2020. However, flexibility in EU rules was provided due to the extraordinary circumstances.

HOUSING AND MORTGAGE MARKETS

During 2019 the real estate market brought enhanced investor interest both for housing and for commercial properties. Real estate prices had in some cases increased significantly, but the increase in prices and demand did not appear to have spread to the whole market, as it relied mainly on investment demand and capital inflows from abroad and less on domestic demand for home ownership or private use.

Tourism related property attracted most investment, with a spill-over effect on demand for residential and commercial properties in specific locations. Despite regional differences, prospects improved for almost the entire real estate market in 2019, with yields on investment properties often approaching the highest pre-crisis levels (2005-2007). Also, there was strong growth in foreign direct investment in real estate; net capital inflows for real estate purchase in Greece[3], were EUR 1.45 bn (2018: EUR 1.1 bn, 2017: EUR 415 mn).

In 2019, house prices rose for a second consecutive year although with regional differences and significant increases in areas with strong investor interest. Apartment prices increased in 2019 at an average annual rate of 7.3% (2018: 1.8%) significantly enhanced by the strong investment interest especially in short-term residential leases. According to regional data, in 2019 the highest growth in apartment prices were recorded in Athens (10.4%) and Thessaloniki (7.0%), while growth rates in other major cities and semi-urban and rural areas were milder (4.0% and 4.6%, respectively). In Q1 2020, prices are estimated to have increased, on average, by 6.9% y-o-y for the country as a whole, by 10.6% y-o-y in Athens, 5.5% in Thessaloniki, 2.9% in other cities and 4.3% in other areas of Greece.

The number of real estate sales[4] increased for a fourth consecutive year (acc. to the latest available data) by 13.9% in 2018, against 15.3% in 2017 and 10.8% in 2016. **Housing investment**[5] increased by 12.1% in 2019 (2018: 17.2%), although it remained at a low level relative to GDP (0.8%). In Q1 2020, housing investment is estimated to have increased, on average, by 22.6% y-o-y. **Construction activity in housing** continued to exhibit grow strongly for a fourth consecutive year, although it remains low in absolute terms. Moreover, in 2019 **building permits** for new housing increased at country level by 30.7% in terms of number of permits and 17.0% in terms of volume (in cubic metres) whereas in Athens grew significantly higher by 67.2% (49.6% in volume terms in cubic metres).

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

[2] Hellenic Statistical Authority (ELSTAT) data.

[3] Bank of Greece data.

[4] According to ELSTAT data collected by notaries throughout the country; including all real estate categories of residential and commercial properties (dwellings, retail, offices, building plots, etc.).

[5] ibid, at constant prices.

In Q1 2020, **building permits** for new housing for the entire country increased by 56.7% in terms of number of permits and 51.6% in terms of volume (in cubic metres). Meanwhile, **business expectations in construction**[6] turned positive in 2018 (4.8%) after three years of negative rates, remained unchanged in 2019 (0.0%) and turned positive again in the first half of 2020 (1.2%, y-o-y). **Business expectations for dwellings** in the first half of 2020 remained positive (2.5%, y-o-y), continuing the positive outlook of the previous years (2019: 3.6% and 2018: 13.5%).

However, due to recent COVID-19 outbreak a considerable fall in transactions is expected, along with a potential downward impact on real estate activity and consequently on prices and rental values. Given the high dependence of the real estate market on tourism the impact of the crisis on the housing market will depend mainly on the duration of the current special conditions and the recovery speed of the overall economy.

MORTGAGE FUNDING

The stock of housing loans outstanding continued to shrink, with the latest figure (April 2020) standing at -3.3%, almost unchanged compared to the previous year (2019:-3.4%). **Bank interest rates** on new and outstanding housing loans slightly decreased in April 2020 compared with the average rate for 2019. In particular, rates on new housing loans[7] in April 2020 were 3.0% (2019: 3.3%) and on outstanding housing loans with an initial maturity of over 5 years stood at 2.0% (2019: 2.1%). However, short-term trends suggest that interest rates on new housing loans remained broadly stable during January 2019 up to July 2019 and decreased since then (latest figures – April 2020). On the contrary, interest rates on outstanding loans declined slightly during 2019 and remained stable in the first four months of 2020.

According to the latest available data of the Bank Lending Survey for Greece (Q1 2020), terms and conditions and credit standards for loans to households have been largely unchanged since a moderate tightening in 2016. The proportion of rejected loan applications to housing loans decreased moderately in Q3 2018 followed by a small increase in Q4 2018 and has remained unchanged since then. For Q2 2020, banks expect that credit standards for loans to households to remain unchanged while the demand for loans to households is expected to decrease considerably.

Since the Greek crisis in October 2009, private sector **deposits** have decreased by EUR 87.3 bn (end-April 2020). Deposit outflows between December 2014 and June 2015 (private sector deposits reduced by EUR 43 bn) ended with the imposition of capital controls (end-June 2015) and the agreement on the third economic adjustment program (August 2015). Since then, private sector deposits have increased by EUR 31 bn (end-April 2020). Domestic savings is insufficient to meet the investment needs of the economy which, after a long period of very low investment rates, are significant. In the last four years foreign direct investment has risen (EUR 4.1 bn in 2019, EUR 3.4 bn in 2018 and EUR 3.1 bn in 2017) with the real estate market contributing significantly, especially in 2019 by 35.0%, against 33.5% in 2018 and 13.4% in 2017.

In 2019 Greek banks issued EUR 400 mn of **covered bonds**. The majority of the existing covered bonds is retained by the banks and used in interbank repo transactions and transactions with the European Central Bank.

	GREECE 2018	GREECE 2019	EU 27 2019
MACROECONOMIC VARIABLES			
Real GDP growth (%) (1)	1.9	1.9	1.5
Unemployment Rate (LSF), annual average (%) (1)	19.3	17.3	6.7
HICP inflation (%) (1)	0.8	0.5	1.4
HOUSING MARKET			
Owner occupation rate (%) (1)	73.5	75.4	69.9*
Gross Fixed Investment in Housing (annual change)(1)	17.2	12.1	3.3
Building Permits (2015=100) (2)	123.1	130.9	122.0
House Price Index – country (2015=100) (2)	98.3	105.5	125.5**
House Price Index – capital (2015=100) (2)	99.8	110.3	129.5**
Nominal house price growth (%) (2)	1.8	7.3	5.9**
MORTGAGE MARKET			
Outstanding Residential Loans (mn EUR) (2)	56,766	52,707	5,904,991
Outstanding Residential Loans per capita over 18 (EUR) (2)	6,400	5,947	16,165
Outstanding Residential Loans to disposable income ratio (%) (2)	47.8	43.1	62.9
Gross residential lending, annual growth (%) (2)	1.6	2.4	9.6
Typical mortgage rate, annual average (%) (2)	3.0	3.1	2.3**

* The aggregate EU figure is from 2018.
** Please note that this value is the simple average of the available values in 2019.

Sources:
(1) Eurostat
(2) European Mortgage Federation - Hypostat 2020, Statistical Tables.

[6] Source: Foundation for Economic and Industrial Research (IOBE) data, according to Business and Consumer Survey report.

[7] Including charges.

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 came to a halt in Q4 2019.
- → Housing credit to GDP is 7.7% in 2019, one of the lowest ratios in the EU.
- → In 2019 more than 97% of newly issued mortgage loans had medium or long term fixed rate.
- → The Mortgage Funding Adequacy Ratio, which specifies the minimum number of mortgages that must be funded by mortgage bonds, increased from 20 to 25% from the 1st of October 2019.
- → From July 2020 the Prenatal Baby Support program (unsecured interest free loan facility up to HUF 10 Mn) came as a new scheme to support young home buyer couples.

MACROECONOMIC OVERVIEW

In 2019 the economy grew by 4.9% compared to the previous year. Based on outputs this growth was made up of 5% growth in industrial production, 21% in construction, 4.2% in services and a fall in agricultural production of 0.3%. Based on expenditure, the actual final consumption by households was up 4.2%, and by government 2%. As a result of these trends, actual final consumption rose by 4%.

Gross capital formation increased by 9.5% compared to the previous year. Exports grew by 6% and imports by 6.9% in 2019. Average gross earnings (HUF 367,800) in 2019 were 11.4% higher than a year earlier. The unemployment rate was 3.4% at the end of 2019, 0.3 pps lower than a year before. Consumer prices were higher by 4% in December 2019 than a year earlier.

On average for the whole year, consumer prices rose by 3.4% compared to the previous year. Highest price growth was observed on pork meat prices 23.7% and on other meat and meat preparations by 13.2%, sugar prices by 12.2% and the price of seasonal fresh food items by 8.3%. The price of alcoholic beverages and tobacco rose by 8.4% on average, within which tobacco prices by 12.3%. Electricity, gas and other fuels became 0.6% more expensive. The price of motor fuels was 7.7% higher.

Consumer durables prices fell during the period. Hungary posted a budget deficit of 2% of the GDP in 2019. The public debt to GDP ratio was 66.3% at the end of the year.

HOUSING MARKETS

With a population of 9.8 mn Hungary had a stock of 4.5 mn housing units at the end of 2019. The home ownership ratio is around 86% in 2019, a ratio which is traditionally high in the CEE and Baltic countries. The preferential VAT rate (5% instead of 27%) on newly built houses expired at the end of 2019 , although for those for which the building permit was issued before 1st of November 2018 the preferential rate may still be applied if the property is purchased before December 2023.

In 2018, 36,719 building permits were granted. In 2019 the number of issued permits fell to 35,123. The number of housing completions peaked in 2019 by 21,127, 20% higher than in the previous year (17,681).

In Budapest 5,838 new homes were completed in 2019, ca. 27% of all the entire country. The number of newly issued building permits grew significantly in Budapest (12,158), 35% of the national total.

In the last quarter of 2019 the Takarek House Price Index has shown a 3% decrease compared to the previous quarter, however the yearly index value of house prices at year end still stood 8% higher than at year end 2018 .

House prices have been increasing in Hungary since 2014, a trend which reached a turning point in the 4th quarter of 2019. During this period prices in Budapest and in municipal centres have grown at a rate above the country average, particularly in Budapest.

The price gap between the capital and rural settlements widened. In rural settlements despite the continuous price appreciation in 2019 the median price was around 85 thousand Ft per square meter, compared to 590 thousand Ft/sm in Budapest.

According to the figures of the National Bank, there were 154,940 housing transactions in 2019 which mark an over 10% contraction with respect to 172,846 transactions in 2018.

MORTGAGE MARKETS

Gross residential lending (disbursement of new housing loans) grew again in 2019, although the growth has been slower compared with the previous year (7% in 2019 versus 26% in 2018).

In spite of this growth, the proportion of outstanding residential loans to GDP is still very low in Hungary (even compared to regional neighbours). Mortgage loans can only be originated in HUF (FX lending was banned earlier in Hungary) and around 93% of new mortgage loans were based on a fixed interest rate during the year. The average annual interest rate on new loans was around 4.9%. The most typical mortgage product in Q4 of 2019 offered an interest rate fixed for a period of 5 to 10 years (55% of total issuance). Mortgage loans with a floating rate up to 1-year represented only 1,7% of all the loans issued in Q4 2019.

According to the Financial Stability Report of the Hungarian National Bank, by the end of 2019 the ratio of mortgage loans overdue for more than 90 days decreased from 2.4% in 2018 to 1.3%. For subsidised housing loans the ratio at the end of

2019 was 1.9% compared to 2.1% a year before. The NPL ratio for the so called "home equity loans" was around 8% at the end of 2019 versus 11.7% in 2018

NON-MARKET LED INITIATIVES

Longer term fixed rate mortgages became more common because of regulatory measures introduced at the end of 2019. According to the new regulation the maximum payment to income ('PTI')for loans with rates which are variable or fixed for less than five years is 25%, for mortgages with a five to ten-year fixed rate this is 35% years. The highest PTI ratio (50%) is available for mortgages with fixed interest rate period of above ten years.

Home Purchase Subsidy and Prenatal Baby Support Schemes help young families purchase new flats, whereas the end of the preferential VAT period for newly bought homes from January 2020 (27% instead of 5 %) has an adverse effect on the new home market.

IMPACTS OF COVID-19 TO MORTGAGE LENDING AND RELEVANT MEASURES TAKEN BY LOCAL AUTHORITIES

As with other European countries the Hungarian government and the Magyar Nemzeti Bank (MNB) quickly responded to the outbreak of the pandemic crisis putting several measures in place. The crisis initially triggered market instability in local debt and equity markets, while the lockdown of the economy have contributed to spillover macroeconomic impacts as well. In such a situation these measures aimed at providing liquidity to the local money and capital markets as well as easing the financial burden for society and the financial risk of the banking sector stemming from the expected worsening of loan portfolio quality due to expected higher unemployment rate, braking economic performance and lower disposable income.

The most important measure affecting mortgage lending has been the introduction of payment moratoria for both retail and corporate clients until December 31, 2020. The payment moratoria provide that client's obligations to pay monthly installments (principal, interest and other fees) have been temporarily suspended, unless the client indicates or demonstrates such behavior reflecting the willingness to continue paying their obligation ('opt-out' system). According to the initial figures around 50% of clients choose to continue paying monthly installments. Nevertheless, the predictability of that ratio is difficult, as clients have the right to 'jump in-and out' in the period of the moratoria. Apart from the payment moratorium, the MNB introduced further measures to increase consumer protection, to support lending activity and smooth banking operations with a special focus on the challenges stemming from the unexperienced pandemic situation.

Hungarian capital markets experienced a severe liquidity drain at the beginning of March, which combined with soaring government bond yields and a disappearing investor base for mortgage covered bonds. The most important elements of the MNB's measures to stabilise markets were the introduction of (i) a long-term collateralised lending facility at fixed rate tenders for local banks, (ii) HUF denominated government bond purchase program, (iii) mortgage covered bond purchase program and (iv) long-term refinancing loans for banks to fund SMEs and medium-sized corporates ('Funding for Growth Scheme GO!'). Also, certain requirements for prudential, liquidity and capital compliance have been eased temporarily. As a result of the aforementioned asset purchase program, the government bond market has already shown some stabilisation, while the first successful mortgage bond issuae in the form of public auction took place with the participation of the MNB at the end of May.

MORTGAGE FUNDING

Most mortgage loans are deposit-funded in Hungary, but covered bonds are also a commonly used source of 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 (the 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 changed to 25% from the 1st of October 2019. There are 5 mortgage banks operating in the Hungarian market.

The mortgage bond purchase program of the MNB has already helped the banking sector to switch from variable to fixed rate lending in 2018. MNB has purchased fixed rate mortgage bonds on the primary and the secondary market at preferential purchase rates.

GREEN FUNDING

The MNB has joined the Advisory Council of the Energy Efficient Mortgages Pilot Scheme in the Energy Efficient Mortgages Initiative. The Central Bank has also announced its "Green Program" in 2019. Several commercial and mortgage banks have signalled their participation in the program.

The first Hungarian Green government Bond at a value of EUR 1.5 bn with a 15 years tenor has been succesfully issued on 2 June 2020. The proceeds of the issue will be used for financing and refinancing green investments.

	HUNGARY 2018	HUNGARY 2019	EU 27 2019
MACROECONOMIC VARIABLES			
Real GDP growth (%) (1)	5.1	4.9	1.5
Unemployment Rate (LSF). annual average (%) (1)	3.7	3.4	6.7
HICP inflation (%) (1)	2.9	3.4	1.4
HOUSING MARKET			
Owner occupation rate (%) (1)	86.0	91.7	69.9*
Gross Fixed Investment in Housing (annual change)(1)	11.3	5.5	3.3
Building Permits (2015=100) (2)	293.4	280.6	122.0
House Price Index – country (2015=100) (2)	157.2	183.4	125.5**
House Price Index – capital (2015=100) (2)	173.2	211.3	129.5**
Nominal house price growth (%) (2)	18.2	16.6	5.9**
MORTGAGE MARKET			
Outstanding Residential Loans (mn EUR) (2)	13,604	13,715	5,904,991
Outstanding Residential Loans per capita over 18 (EUR) (2)	1,687	1,701	16,165
Outstanding Residential Loans to disposable income ratio (%) (2)	18.5	17.2	62.9
Gross residential lending. annual growth (%) (2)	22.2	4.8	9.6
Typical mortgage rate. annual average (%) (2)	4.4	4.9	2.3**

* The aggregate EU figure is from 2018.

** Please note that this value is the simple average of the available values in 2019.

Sources:

(1) Eurostat

(2) European Mortgage Federation - Hypostat 2020. 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 55%, mortgage banks 31%, savings cooperatives 13% of the new mortgage issuances. Saving coopertives merged into a commercial bank, so they are not represented anymore in the statistics from 2019.
Proportion of outstanding mortgage loans of the mortgage issuances:	Banks hold 58%, mortgage banks 29%, home saving cooperatives 13% of the total outstanding mortgage loan portfolio. Saving coopertives merged into a commercial bank, so they are not represented in the statistics at the end of the year.
Typical LTV ratio on residential mortgage loans:	The average LTV ratio of the newly disbursed residential mortgage loans was 63% in 2019.
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 15.5 years in 2019.
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 2019 the ratio increased 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 2.9 mn) 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. The Home Purchase Subsidy helped to stimulate the house purchase possibilities for families . From July 2019 the Prenatal Baby Support program (unsecured interest free loan facility up to HUF 10 Mio) quickly became populare and it also had a positive impact on the home purchase activity of First Home Buyers (mainly young couples).

Ireland

By Anthony O'Brien, Banking & Payments Federation Ireland

IN A NUTSHELL

- → Economic improvement continues supporting household formation.
- → Although increasing, housing supply remains below levels required.
- → House sales and rental prices continue to rise due to the mismatch between supply and demand but house price inflation is slowing especially in Dublin.
- → Mortgage lending continues to grow but more slowly than in recent years and is increasingly focussed on first-time buyers (FTBs).
- → Non-household buyers play an increasingly important role in the housing market especially for new properties.

MACROECONOMIC OVERVIEW

The economy posted another solid performance in 2019 with gross domestic product (GDP) up 5.5% year-on-year in volume terms, according to preliminary data from the Central Statistics Office (CSO). Investment, driven by intellectual property (IP) products almost doubled (up 94.1%) following declines in 2018 and 2017. Intellectual property is commonly relocated to Ireland in association with external contract manufacturing activity attributable to Ireland. Total domestic demand rose by 35.3% year-on-year. Personal consumption was up 2.8% while an 11.1% increase in exports was offset by a 35.6% increase in imports.

The current account swung to a deficit in 2019 for the first time since 2016, with a deficit of EUR 32.8 bn according to preliminary figures, mainly due to a sizeable increase in R&D-related IP imports.

Modified total domestic demand, which removes disproportionate globalisation effects such as IP imports, aircraft leasing and re-domiciled firms (businesses with largely global operations and earnings that are headquartered in Ireland), rose by 3.2%.

Unemployment also continued to fall, with the rate dropping to 5% in 2019, according to Eurostat, down from 5.8% a year earlier. The gross saving ratio of households (saving as a percentage of total disposable income) increased from 10.2% in 2018 to 10.9% in 2019, according to the CSO.

Consumer price inflation, as measured by the harmonised indices of consumer prices (HICP) according to Eurostat, remained low at 1.1% in December 2019, up from 0.8% in December 2018.

HOUSING MARKET

The housing and mortgage markets continued to grow in 2019 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 are in Dublin.

New housing completions rose by 17.8% in 2019 to more than 21,000, according to the CSO, driven by a sharp rise in apartment building. The number of apartments completed jumped by 55.8% year-on-year to 3,552. Some 77% of the apartments completed were in Dublin, while Dublin and the Mid-East region (the four counties surrounding Dublin) combined accounted for about 78% of scheme house completions.

Dublin and the Mid-East accounted for 58% of housing units commenced in 2019 although year-on-year growth in the Mid-East region slowed to 8.9% having been the main driver of growth in 2017 and 2018. The number of units grew by 16.8% in Dublin to almost 9,000, in line with the national increase of 16.8% to 26,237 units.

CSO annual data shows that residential property prices rose for the seventh successive year, although the rate of house price inflation slowed sharply to 2.3% in 2019. Residential property prices in Dublin were largely unchanged while prices outside Dublin rose by 4.8%. Indeed, house prices in Dublin fell by 0.1% in 2019, while apartment prices rose by 0.3%. Nationally, house prices grew faster than apartment prices at 2.4% and 1.9%, respectively.

Excluding simple property transfers, the number of market-based residential property sales to household buyers grew by only 1.7% in 2019 to almost 45,300, while the value of sales rose by 3.4% to EUR 13.4 bn. New builds accounted for a growing share of sales in recent years, rising to 19% of sales in 2019, compared with 12% in 2015. Over that time, the market had grown slowly: the total number of housing sales increased by 12% between 2015 and 2019 but sales of existing properties rose by only 3.2%.

Household purchases of new properties fell in 2019 by 0.3%, dragged down by Dublin, which saw a 15.3% drop in sales of new properties and a fall of 0.3% in housing sales overall.

Non-household buyers (such as companies, housing charities and government) have emerged as key drivers of housing sales, especially new residential property. Market-based sales of new residential property to non-household buyers jumped by 76% and 81% in volume and value terms, respectively, in 2019. They accounted for about one-third of purchases of new properties.

The national standardised rent level rose by 6.4% year-on-year in Q4 2019 to EUR 1,226, according to the Residential Tenancies Board (RTB). The rental market is dominated by Dublin, which accounted for 41.9% of the registered tenancies at Q4 2019. Only 9.6% of tenancies agreed were for less than EUR 1,000 per month, compared with two thirds elsewhere, according to the RTB.

The annual rise in standardised rent levels in Dublin was 5%, the lowest rate of increase since Q2 2013. 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 MARKET

MARKET DYNAMICS

Mortgage drawdown activity rose in volume terms by 4% in 2019 when there was a total of 42,787 drawdowns during the year, with a total value of over EUR 9.5 bn compared with EUR 8.7 bn in 2018, a 9% increase. There were just over 49,000 mortgage approvals in 2019 with a total value of just over EUR 11 bn in 2019, a 9% increase compared with 2018. The first-time buyer (FTB) market has been accounting for most of the activity in the mortgage market in recent years. FTBs accounted for around 51% of the total value of mortgage drawdowns in 2019 compared to just over 21% in 2006 where mortgage drawdown activity was at its peak.

Total residential and commercial mortgage debt outstanding to banks, including mortgages securitised and no longer on banks' balance sheets, shrank to about EUR 92.6 bn at the end of 2019 from about EUR 97.5 bn a year earlier, according to the Central Bank of Ireland (CBI). When non-banks are included the value of mortgage debt outstanding fell from EUR 117.6 bn to EUR 115.1 bn in 2019, while the number of accounts dropped by about 8,000 to about 846,000.

Some 39.1% of the value of credit institution housing loans was on tracker rates linked to the ECB base rate by the end of Q4 2019. The value of those outstandings had more than halved since Q4 2010. The share of outstanding mortgages on fixed rates over one year increased from 21.4% to 30.2% between Q4 2018 and Q4 2019. Some 74% of the value of new mortgage loan agreements (excluding renegotiations) in 2019 were on fixed rates of greater than one year.

In line with the improving economic environment and lender efforts to agree sustainable solutions for mortgage customers in difficulty, the number of mortgage accounts for private dwelling home (PDH) in arrears of more than 90 days fell to 5.7% of all PDH mortgage accounts by the end of Q4 2019. Some 13.4% 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 11.5% of all PDH accounts and 12.8% of all BTL accounts had an active restructure by the end of 2019. Some 80% of PDH and 83% of BTL restructured accounts were not in arrears by year-end.

NON-MARKET INTERVENTIONS

The CBI maintained its loan-to-value (LTV) and loan-to-income (LTI) limits for new mortgage lending in 2019 without changes. CBI research indicates that the average LTV increased in H1 2019 to 80.7% from 79.5% in H1 2018, while the average LTI was unchanged at 3.1. For second and subsequent buyers (SSB), who are mostly home movers, the average LTV fell to 66.6% from 68.1%, while the average LTI was also unchanged at 2.6. By June 2019, the CBI estimated that 26% of outstanding mortgage lending at retail banks had been issued subject to its mortgage measures.

The CBI permits lenders to allow a portion of borrowers to get loans with LTVs or LTIs that exceed the limits. CBI research indicates that borrowers with these allowances were more likely to be from Dublin (especially for LTI allowances) and younger. Borrowers with SSB LTV allowances tended to have higher incomes than those without allowances, while those with FTB LTI allowances had lower incomes that those without.

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 2019, almost 17,100 HTB claims had been made, of which more than 16,400 were approved. The value of approved HTB claims had reached nearly EUR 244 mn by the end of 2019. Some 64% of claims had been made for properties in four counties: Dublin, Cork, Kildare and Meath.

COVID-19 IMPACT

The COVID-19 pandemic has had a severe impact on the economy and presented specific challenges for the housing and mortgage markets. The adjusted unemployment rate jumped to 28.2% in April 2020 as hundreds of thousands of working signed up for the social welfare benefits introduced to support workers who had lost employment as a result of the pandemic. This placed a huge strain on government finances as did the closure of most businesses to limit the spread of the virus. Consumer spending fell sharply in all areas except groceries. Housing construction stopped when building sites were closed between the end of March and mid-May, which is expected to lead to significant delays in the delivery of new housing. Figures for April 2020 indicate a sharp fall in mortgage activity compared with April 2019.

MORTGAGE FUNDING

Banks rely mainly on retail funding sources (household and corporate deposits) for mortgage lending. Private sector deposits (mainly from households and non-financial corporations) represented 32% of credit institution liabilities, or 48% of total liabilities for credit institutions with a domestic market focus.

Some EUR 16.3 bn in mortgages outstanding were securitised at the end of 2019 according to the CBI.

CBI LTV AND LTI LIMITS

		From 01/01/17	Allowance
LTV Limits	Primary dwelling homes	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

Mortgage covered bonds outstanding fell from EUR 20.8 bn in 2018 to EUR 19.3 bn in 2019. No new mortgage covered bonds were issued in 2019.

GREEN FUNDING

Some banks provide discounted fixed interest rates on mortgages secured on residential properties with higher energy efficiency ratings, based on the national Building Energy Rating. The availability of the discounted rates varies depending on the bank.

The Sustainable Energy Authority of Ireland also provides government grants for home and business energy efficiency upgrades. In 2019 it invested EUR 140 mn on behalf of the government in sustainable energy upgrades and projects and the beneficiaries included 24,700 homeowners.

	IRELAND 2018	IRELAND 2019	EU 27 2019
MACROECONOMIC VARIABLES			
Real GDP growth (%) (1)	8.2	5.5	1.5
Unemployment Rate (LSF). annual average (%) (1)	5.8	5.0	6.7
HICP inflation (%) (1)	0.7	0.9	1.4
HOUSING MARKET			
Owner occupation rate (%) (1)	70.3	n/a	69.9*
Gross Fixed Investment in Housing (annual change)(1)	24.6	2.4	3.3
Building Permits (2015=100) (2)	223.1	308.6	122.0
House Price Index – country (2015=100) (2)	131.2	134.3	125.5**
House Price Index – capital (2015=100) (2)	124.8	124.8	129.5**
Nominal house price growth (%) (2)	10.2	2.4	5.9**
MORTGAGE MARKET			
Outstanding Residential Loans (mn EUR) (2)	83,301	81,637	5,904,991
Outstanding Residential Loans per capita over 18 (EUR) (2)	22,919	22,045	16,165
Outstanding Residential Loans to disposable income ratio (%) (2)	76.0	69.8	62.9
Gross residential lending. annual growth (%) (2)	19.7	9.4	9.6
Typical mortgage rate. annual average (%) (2)	3.0	2.9	2.3**

* The aggregate EU figure is from 2018.
** Please note that this value is the simple average of the available values in 2019.

Sources:
(1) Eurostat
(2) European Mortgage Federation - Hypostat 2020. Statistical Tables.

IRELAND FACT TABLE

Entities which can issue mortgage loans:	Credit institutions (mainly banks) as well as non-bank retail credit firms/home reversion firms.
The market share of the mortgage issuances:	The market shares of different entity types are not published for competition reasons, but most new lending is believed to be published by credit institutions (mainly banks).
Proportion of outstanding mortgage loans of the mortgage issuances:	Non-bank lenders accounted for 13.9% of the number and 17.7% of the value of residential mortgages outstanding at the end of 2019, according to the Central Bank of Ireland. They held 12.3% and 25.2% of the number of principal dwelling home (PDH) and buy-to-let (BTL) mortgages outstanding, respectively, at the end of 2019. Retail credit firms, which are non-deposit taking regulated lenders, held 11% and 18.7% of PDH and BTL mortgages, respectively, while unregulated loan owners held 1.3% of PDH and 6.5% of BTL mortgages.
Typical LTV ratio on residential mortgage loans:	The mean average LTV ratio for first-time buyer mortgages in Ireland was 80.7% in H1 2019 according to the latest Central Bank of Ireland data, up from 79.5% in the first half of 2018. The average LTV for subsequent private dwelling home (PDH) buyers was much lower at 68.1% in H1 2019, up from 66.6% a year earlier. BTL LTVs rose by 1.3 pps to 58% in H1 2019. Note: These figures exclude the 9% of loans that were exempt from the Central Bank of Ireland's macroprudential regulations in H1 2019, 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):	The standard variable rate mortgage for home purchase, based on the French amortisation profile, has traditionally been the most popular product among new customers, but the value of new mortgage agreements with fixed rates has exceeded those on floating or up to 1 year fixed rates in each of the past three years. In 2019, some 73.1% of the value of new mortgage agreements were on initial fixed rates over one year. By the end of 2019, some 39.1% of the value of mortgages outstanding were on tracker rates mainly linked to the ECB base rate while the rest was split between floating/one year fixed and greater than one year fixed rates.
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:	Eligible FTBs can receive tax refunds for purchases of new properties under the Help to Buy scheme. The total value claimed under the scheme (since July 2016) reached EUR 243 mn in 2019.

Italy

By Marco Marino, Italian Banking Association – ABI

IN A NUTSHELL

- → GDP growth slowed to 0.3%.
- → The residential housing transactions registered a new positive result, continuing the trend since 2014.
- → The residential mortgage market continued to register positive performance. The fall in interest rates reduced debt service costs.
- → In May of 2020, the "Ecobonus" scheme to fund energy efficiency projects was reinforced as part of the COVID-19 recovery measures.
- → Nonperforming loans (NPLs) continued to fall significantly.

MACROECONOMIC OVERVIEW

GDP growth slowed to 0.3%, reflecting several factors. First, investment increased by 1.4%, considerably less than in 2018 (+3.1%), due to uncertainty about the slowdown in the global economy and persistent protectionist tensions. Exports slowed, but still outpaced world trade.

Household consumption also increased less than in 2018 due to changes in disposable income (1.1 % in 2019, compared to 1.8% in 2018) and weaker confidence in the economy and labour market (the propensity to save rose slightly, though remaining low in historical terms and by international standards).

Households' financial wealth grew rapidly mainly due to the appreciating asset prices; as in recent years, indebtedness grew mainly for less risky borrowers. Mortgage interest rates, fell to historical lows, with a positive impact on debt servicing. Consumer price inflation was 0.6%, compared with 1.2% the year before.

The unemployment rate declined to 10%, the lowest since 2012. During the year, retirements have increased due to the introduction of the quota 100 early retirement scheme (Law 26/2019). This is an experimental scheme which allows early retirement if you are at least 62 years old and have completed 38 years of contributions payment – the sum of the two figures giving the "100" of the scheme's name – by the end of December 2021.

Bank balance sheets continued to strengthen. The reduction in NPLs continued significantly in 2019, the stock net of provisions was EUR 70 bn for the banking sector as a whole, down 17% compared with the previous six months. Net bad loans or "sofferenze nette" fell to EUR 26.5 bn (1.55% as a percentage of loans), 67% less than the peak in November 2015. The ratio of NPLs to total loans (including interbank and central bank exposures) fell to 3.3%. Until the outbreak of the COVID-19, NPLs had decreased even faster than agreed with supervisory authorities.

According to the Bank of Italy, since the end of February 2020, COVID-19 has had a very negative impact on economic activity, GDP fell by around 5.3% in the first quarter. All the current scenarios regarding developments in GDP incorporate a markedly negative performance in the first half of the year, followed by an improvement in the second half and a marked recovery in economic activity in 2021. Economic, monetary and fiscal policy together with temporary relief on classification of NPLs (following the EBA Guidelines on the treatment of COVID-19 moratoria) should help to prevent from a large increase in new NPLs.

HOUSING MARKETS

The residential housing transactions registered a new positive result, continuing the trend since 2014, with a peak in 2016 and an average annual growth rate of around 5% in the following three years. Transactions amounted to more than 603,000 a growth of 4.3%.

There was volatility in the quarterly transaction growth rates. The rapid increase at the start of the year, especially in the Centre and North, with double-digit growth rates, was followed by a slowdown in Q2, a further acceleration in Q3 and a new slowdown in the last quarter, especially in Central areas.

The Q4 slowdown is probably related to both the slow down in the economy (GDP decreased by 0.3% compared to the previous quarter and increased by 0.1% compared to Q4 2018) and the timid growth of house prices .

According to the Italian National Institute of Statistics (ISTAT), in Q4 2019 the Housing Price Index increased by 0.3% y-o-y and in general, in 2019 the index remained essentially stable compared to the previous year (-0.1%).

The most significant growth in the volume of transactions was in the North (+5.4% in North East and +5.1% in North West), which represent more than ½ of the market. In both the Southern and Central areas transactions increased by 3.2% while in the Islands growth was 2.3% compared to the previous year. Growth of transactions in the major cities (3.6%) was lower than that other towns (4.5%), confirming the trend of the previous year.

From February 2020, the spread of the COVID-19 pandemic has had a strong negative impact on the amount of transactions and the outlook is still uncertain.

MORTGAGE MARKETS

MARKET DYNAMICS

The residential mortgage market continued to grow: outstanding residential loans reached EUR 382 bn in 2019 (+0.9%) and new loans (EUR 71.5 bn by the end of the year) recorded a new growth (+5.4%).

Housing transactions with a mortgage also continued to increase. They amounted to about 287,000 units, an increase of 1.5%. This represents a little under 50% of the total houses purchased.

The average mortgage amount increased to about EUR 127,000 ; it reached almost EUR 140,000 in the Central areas. The average maturity is 23.1 years and it is similar in all areas.

Favourable conditions have reduced risk of the market, in particular, the fall in interest rates to historical lows, had a positive impact on debt servicing.

The average rate on new mortgages decreased to 1.44% (1.89% at the end of 2018). The average rate on short term loans (<1 year) fell to 1.37% (1.52% at year-end 2018), while rates for loans over 1 year fell to 1.46% from 2.06%.

Given these rates there was a preference for fixed-rate mortgages.

NON-MARKET LED INITIATIVES

The measure so-called "Restructuring Bonus" which provides a deduction of 50% for reformation and renovation expenses carried out on private properties and on the commonly owned parts of condominiums has been extended to 2019 and 2020.

In particular, those who renovate their property can take advantage of a 50% personal income tax deduction up to a maximum expenditure of EUR 96,000 per property unit. The deduction is divided into 10 equal annual instalments, starting in the year in which the expenditure was started.

At the end of 2019, another tax credit was introduced to encourage the renovation of the building external wall ("Building Facade Bonus"). This is equal to 90% of the expenses incurred in 2020, without a maximum expenditure. The work can be carried out on the structures visible from street level. This new incentive is applicable on existing buildings in certain zones.

Other important facilities have been introduced over the years, such as the fiscal benefit for the purchase of furniture or the increase in the maximum interest expense that can be deducted from income tax paid on mortgages to bring in deduction.

ANY FURTHER IMPORTANT EVOLUTION

The Mortgage Solidarity Fund for first-time buyers – active since April 2013 – is an important instrument to increase access to credit for house purchase by families.

The Public Fund allows borrowers to request suspension of payments on the mortgage on their first home for a total of 18 months, if specific events occurred.

The suspension is granted for loans up to EUR 250,000 whose holder has an indicator of the equivalent economic situation (ISEE) not exceeding EUR 30,000. ISEE is a criterion to evaluate the family economic situation, based on specific parameters (family income, real estate and movable assets, household's composition).

The applicant must declare that the immovable property securing the financing is their "first house" and it is not classified in the Real Estate public registry as a luxury house.

In 2020, the Fund was extended for 9 months from 17th March 2020 to (i) self-employed workers and professionals who self-certify a fall in their turnover, in the quarter following 21st February 2020, of more than 33% as a result of COVID-19, (ii) those who exceed a EUR 30,000 income and (iii) loans up to EUR 400,000.

MORTGAGE FUNDING

Total funding (resident customers deposits and bonds) grew 4.7% y-o-y.

Deposits increased by 5.8% (+2.3% in 2018), while funding through bonds, decreased by 1.9% (-12.3% in 2018).

In 2019, a total of EUR 27 bn of Italian covered bonds was issued. The total level of outstanding covered bonds accounted approximately EUR 177.6 bn (+5.2%).

With reference to the securitisation market, in 2019 EUR 220.9 bn of securitised product was issued in Europe (approximately EUR 119,2 bn was placed), with reduction of -18% y-o-y. In Italy, placed issuance accounted approximately EUR 7.2 bn in 2019.

In general terms, the European securitisation market has not yet rebounded after the 2008 crisis.

GREEN FUNDING

Customers with an energy efficiency project on an existing building can take advantage of a tax deduction known as the "Ecobonus", from 50% to 75% of the total cost. The tax credit is divided into 10 equal-sized annual parts. If the renovation projects are carried out at the same time as anti-seismic measures and permit the building to be upgraded to a lower seismic risk class, the tax credit can reach 80/85% of the total cost incurred ("Sismabonus").

In May of 2020, the government increased this facility as part of the COVID-19 recovery measures. Private individuals or co-owners in a condominium incurring costs between 1 July 2020 and 31 December 2021 in relation to certain energy works (including energy efficiency), benefit from a tax deduction equal to 110% of the cost, up to specific caps. The tax deduction can be converted into a discount or a tax credit that may be transferred to third parties, including banks and financial intermediaries.

	ITALY 2018	ITALY 2019	EU 27 2019
MACROECONOMIC VARIABLES			
Real GDP growth (%) (1)	0.8	0.3	1.5
Unemployment Rate (LSF), annual average (%) (1)	10.6	10.0	6.7
HICP inflation (%) (1)	1.2	0.6	1.4
HOUSING MARKET			
Owner occupation rate (%) (1)	72.4	n/a	69.9*
Gross Fixed Investment in Housing (annual change)(1)	2.9	3.2	3.3
Building Permits (2015=100) (2)	127.4	93.4	122.0
House Price Index – country (2015=100) (2)	96.9	96.9	125.5**
House Price Index – capital (2015=100) (2)	89.8	87.5	129.5**
Nominal house price growth (%) (2)	-0.6	0.0	5.9**
MORTGAGE MARKET			
Outstanding Residential Loans (mn EUR) (2)	379,054	382,583	5,904,991
Outstanding Residential Loans per capita over 18 (EUR) (2)	7,480	7,549	16,165
Outstanding Residential Loans to disposable income ratio (%) (2)	32.2	32.1	62.9
Gross residential lending, annual growth (%) (2)	-5.0	5.4	9.6
Typical mortgage rate, annual average (%) (2)	1.9	1.4	2.3**

* The aggregate EU figure is from 2018.

** Please note that this value is the simple average of the available values in 2019.

Sources:
(1) Eurostat
(2) European Mortgage Federation - Hypostat 2020, 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 no available.
Typical LTV ratio on residential mortgage loans:	Data no 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 EUR 650 mn and will offer guarantees on mortgage financing for an estimated amount of EUR 14 bn.

Latvia

By Jekaterina Petkevica, Latvijas Banka

IN A NUTSHELL

- → Growth slowed due to slower external demand growth. The growth that there was mainly driven by domestic demand, the labour market was resilient and contributed to private consumption growth.
- → Moderate activity in the real estate market and rising prices were supported by economic growth, rising household income and savings, as well as the state support programme for house purchase.
- → New loans for house purchase have slightly decreased, albeit total portfolio is slowly growing.
- → Domestic deposits dominate the funding of banks.

MACROECONOMIC OVERVIEW

The economic growth rate decelerated to 2.2% (seasonally adjusted) impacted by global uncertainty and slowing foreign demand. Final consumption was the main growth driver with both private and public consumption increasing by 2.8% supported by declining unemployment and stable wage growth. Gross fixed capital formation slowed substantially to 4.2% (15.5% in 2018) as government investment declined after a 2-year double-digit growth. Meanwhile investments in dwellings continued to grow for the second year in a row. Decelerating domestic growth was reflected in a slower growth of imports while global uncertainty and an economic slowdown in partner countries resulted in moderating external demand, and thus weaker export growth.

Despite a slowdown in the economic growth rate, the continuously high demand for labour and the limited supply were the main drivers of the labour market development. Thus, the unemployment rate continued to shrink to 6.3% and wage growth remained stable (7.2%) supporting consumption and allowing households to save. In the second half of 2019, the number of entrepreneurs who said that a labour shortage limited their growth declined. HCPI grew at 2.7% driven by domestic demand and reflecting rising labour costs and global commodity market developments.

The general government budget deficit stood at 0.2% of GDP, a decrease of 0.6 pps compared to last year. Given the stable wage growth, high income tax revenue had a positive effect on the budget. As the economic performance declined, overall public expenditure growth stood moderate at 3.3%. The primary budget surplus reached 0.5% of GDP and general government debt slightly declined to 36.9% of GDP.

HOUSING MARKETS

The market was characterised by moderate activity and rising prices. In Riga the number of transactions grew by 5%, driven by sales of new dwellings. Considering the strong increase in commissioned new dwellings and building permits (both in terms of number and floor space), supply is expected to support further increases in activity market and possibly ease pressure on price growth.

Although activity levels were broadly stable, prices continued to rise in line with fundamentals: economic growth, rising household income and savings, and a state housing guarantee program for families with children and young specialists (persons who have acquired the vocational secondary or higher education and do not exceed the age of 35). In 2019, the Central Statistical Bureau's (CSB) house price index increased by 8.8% (existing dwellings rose by 8.1% and new dwellings by 12.7%). The rapid growth of prices for new housing per square meter is due to more active development of economy class apartments. In new houses developers are building smaller, cheaper and thus more affordable housing to reflect he purchasing power of local households.

MORTGAGE MARKETS

MARKET DYNAMICS

The outstanding amount of residential and commercial mortgage loans held by banks decreased in 2019 by 2.4%, mainly explained by one-off (associated with the cancellation of credit institution license and sectoral reclassification effects). Residential mortgages outstanding increased by 0.8% in 2019 (excluding one-offs) as new origination was more moderate than in the previous year. New origination continues to be facilitated by a rise in household income, low interest rates and the state housing guarantee program (in 2019, close to 45% of new residential mortgages were within this program). Meanwhile, the repayment of long-term residential mortgages granted in the pre-crisis boom period is still reducing loan portfolio growth.

NON-MARKET LED INITIATIVES

There is an increasing trend in LTVs of new residential mortgage loans. LTVs for 28% of new loans volume, or for 23% of new loans amount, exceeded 90%, mainly related to the state housing guarantee program.

Total residential mortgage loans were equal to only 12.0% of GDP and overall household indebtedness was low (17.8%). Effective interest rates on residential mortgage loans were broadly unchanged (2.63%, compared to 2.67% in 2018).

The quality of bank loan portfolios continues to improve – residential mortgage loans over 90 days past due were 2.1% of the total, while corporate loans over 90 days past due were 2.5% in the end of 2019.

In November 2019 the Financial and Capital Market Commission regulations were amended setting maximum DSTI of 40%, DTI of 6, and LTV of 70% for buy-to-let mortgages. Maximum maturity for residential mortgages is 30 years, for consumer loans 7 years. These amendments will come into force on 1 July 2020 as was planned before.

ANY FURTHER IMPORTANT EVOLUTION

As a result of the COVID-19, banks initially offered grace periods to affected customers, but later on industry-wide debt moratoriums ranging up to 12 months were introduced. This mitigates the most immediate effects for the real estate sector, but the outcomes later this year and early next year will depend on the pace and timing of the following recovery. In the aftermath, the mortgage market is expected to remain relatively resilient since household indebtedness is low on aggregate level and the impacted properties may be picked up by less affected households.

MORTGAGE FUNDING

Credit institutions in Latvia obtain funding mostly from domestic retail and non-financial corporations deposits and some funding from parent banks. Latvian credit institutions are not active in the financial markets as a source of funding. Domestic deposits as a source of funding has been growing and is now 60.2% (compared to 56.9% the year before) of banks' total liabilities, while the share of liabilities to foreign parent MFIs (Nordic parent banks) was 6.5% (10.8% in 2018). In 2019, there were no mortgage covered bonds issued by Latvian MFIs. Luminor Bank in Estonia has issued 5-year covered bonds for EUR 0.5 bn, covered only by Estonian assets, and announced it is planning to continue issuing covered bonds adding Lithuanian and Latvian assets to the cover pool.

	LATVIA 2018	LATVIA 2019	EU 27 2019
MACROECONOMIC VARIABLES			
Real GDP growth (%) (1)	4.3	2.2	1.5
Unemployment Rate (LSF), annual average (%) (1)	7.4	6.3	6.7
HICP inflation (%) (1)	2.6	2.7	1.4
HOUSING MARKET			
Owner occupation rate (%) (1)	81.6	80.2	69.9*
Gross Fixed Investment in Housing (annual change)(1)	7.3	7.8	3.3
Building Permits (2015=100) (2)	125.4	135.6	122.0
House Price Index – country (2015=100) (2)	129.2	139.9	125.5**
House Price Index – capital (2015=100) (2)	—	—	129.5**
Nominal house price growth (%) (2)	11.2	8.2	5.9**
MORTGAGE MARKET			
Outstanding Residential Loans (mn EUR) (2)	4,102	4,177	5,904,991
Outstanding Residential Loans per capita over 18 (EUR) (2)	2,603	2,676	16,165
Outstanding Residential Loans to disposable income ratio (%) (2)	23.1	21.5	62.9
Gross residential lending, annual growth (%) (2)	7.4	-5.7	9.6
Typical mortgage rate, annual average (%) (2)	2.8	2.7	2.3**

* The aggregate EU figure is from 2018.
** Please note that this value is the simple average of the available values in 2019.

Sources:
(1) Eurostat
(2) European Mortgage Federation - Hypostat 2020, 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

→ Accelerating GDP growth of 3.9%.
→ Record year in housing price growth.
→ New mortgage lending is growing only 1.3% and starts slowing down.

MACROECONOMIC OVERVIEW

Lithuania's economy grew by 3.9% in 2019, significantly above the forecasted 2.5%, and an improvement from 2018 (3.6%). Foreign direct investments contributed to this growth, various banks and manufacturing companies opened shared service centres in Vilnius and elsewhere. This has further boosted the real estate sector – office and residential developments. Pre COVID-19 projection for 2020 was around 2.5%, but in light of the current situation those forecasts are rather meaningless.

Unemployment continued to low at 6.3%, slightly higher than 2018, 6.1%. For 2020 it was forecast to remain at 6.3%-6.4%, though as with any other forecast the effect of COVID-19 will be significant. Wages grew 8.8% in 2019, slowing down from the 10% of 2018.

Annual inflation at the end of 2019 dropped to 2.2% level, a continuous decline since the 3.7% in 2017. Consumer confidence was increasing in 2019, a trend which continued until the COVID-19 outbreak.

HOUSING MARKETS

Homeownership continues to be amongst the highest in Europe, above 90%, largely because of the privatisation of houses after independence in 1990.

2019 has seen a record growth in apartments prices in all five major cities of Lithuania (population above 100K) from 6% to 13%. Prices in Vilnius have grown 6.9%, compared to 3% in 2018, despite market saturation as described by some analysts. In other cities the price growth was as high as 13%.

The number of completed dwellings validate this point, in 2019 it was 6,514, almost 2% more than the 2018 figure of 6,410. In contrast, the number of permits issued in 2019 was 7,755, 3% lower than last year, indicating that the the construction peak may have been reached.

MORTGAGE MARKETS

Mortgage market growth slightly accelerated; according to the Bank of Lithuania, outstanding mortgage loans at year end were EUR 8,411 mn, 8.4% more than 2018 (EUR 7,758 mn) compared with growth of 8.16% in the previous year. New loan issuance 2019 grew by 1.3% from EUR 1,459 mn to EUR 1,478 mn, a growth rate sharply lower than the 9.1% in 2018. Average mortgage rates continued to increase from 2.22% in 2018 to 2.37% in 2019. The slower growth rates indicate a lack of consumer confidence and commercial banks' move to counteract the heating up of housing market.

NON-MARKET LED INITIATIVES

The market growth happened despite enforcement of the Responsible Lending Guidelines by the Central Bank of Lithuania. The guidelines set a cap on Loan-to-Value of 85%, Debt-to-Income (DTI) 40% and a maximum maturity of 30 years (10 years less than was previously available in the market). For DTI calculations banks have to use the greater of the actual interest rate and 5%, to offset current low rate environment. Before the introduction of the DTI cap introduction, the industry standard was flat DTI amount based on the family size, which varied from bank to bank. The cap limited larger mortgages, as the previous fixed amount per resident- system allowed for more income to be left for mortgage payment. In spite of these measures the market adjusted to the changes and continued to grow.

MORTGAGE FUNDING

In 2019 as in previous years, deposits remained the primary source of mortgage funding. Despite the majority of banks offering close to zero rate for EUR term deposits, deposit volume 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 mortgage market, since all of them have strong parent banks 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 use of innovating mortgage funding instruments like securitisation or covered bonds issues. But an initiative of the Ministry of Finance to introduce a covered bond law in conjunction with the respective Ministries in Latvia and Estonia is ongoing and expected to result in the introduction of a law in 2020.

	LITHUANIA 2018	LITHUANIA 2019	EU 27 2019
MACROECONOMIC VARIABLES			
Real GDP growth (%) (1)	3.6	3.9	1.5
Unemployment Rate (LSF), annual average (%) (1)	6.2	6.3	6.7
HICP inflation (%) (1)	2.5	2.2	1.4
HOUSING MARKET			
Owner occupation rate (%) (1)	89.9	n/a	69.9*
Gross Fixed Investment in Housing (annual change)(1)	5.9	10.1	3.3
Building Permits (2015=100) (2)	114.2	110.9	122.0
House Price Index – country (2015=100) (2)	123.2	n/a	125.5**
House Price Index – capital (2015=100) (2)	n/a	n/a	129.5**
Nominal house price growth (%) (2)	7.3	n/a	5.9**
MORTGAGE MARKET			
Outstanding Residential Loans (mn EUR) (2)	7,758	8,411	5,904,991
Outstanding Residential Loans per capita over 18 (EUR) (2)	3,364	3,666	16,165
Outstanding Residential Loans to disposable income ratio (%) (2)	28.4	28.5	62.9
Gross residential lending, annual growth (%) (2)	9.1	1.3	9.6
Typical mortgage rate, annual average (%) (2)	2.2	2.4	2.3**

* The aggregate EU figure is from 2018.
** Please note that this value is the simple average of the available values in 2019.

Sources:
(1) Eurostat
(2) European Mortgage Federation - Hypostat 2020, 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 Benoît Cerfontaine, The Luxembourg Bankers' Association (ABBL)

IN A NUTSHELL

- → Sound economic fundamentals, GDP growth at 2.3%, unemployment 5.6%, inflation 1.6% with sustainable public finances.
- → In 2019 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 2019 GDP growth increased by 2.3% after 3.1% in 2018, in part due to subdued export growth, reflecting weaker activity in the international financial sector, with net investment inflows stagnant amid increased uncertainty. The main drivers of GDP continue to remain the financial service and private consumption, which benefitted from improvements in the labour market and tax reforms. Business investment decelerated amidst an increase in external uncertainty, while especially construction investment of non-residential buildings remained solid thanks to public infrastructure projects.

Inflation fell to 1.6% in 2019 from 2.0% in 2018, related to the lower energy price. At the same time domestic price pressures, including increased in wages, are starting to exert their influence. In Luxembourg, labour market figures looked solid in 2019, with an employment growth by 3.7% and an unemployment remaining at 5.6% in 2019.

Public finances remained sound with an estimated surplus in 2018 of 2.3% of GDP and a debt/GDP ratio of 19.6%.

HOUSING AND MORTGAGE MARKETS

The mortgage market in Luxembourg in 2019 followed a sustained growth path similar to 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, continuing their decreasing path started in 2018 reaching around 1.39% in 2019, one of the lowest in Europe.

Eased lending criteria, low interest rates and also growing house prices – in 2019 on average a 2.9% increase with respect to 2018 – resulted that the Luxembourgish population had the highest per capita indebtedness in the EU for the seventh year in a row, reaching over EUR 71,000 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, together with a more general concern of cost of living. 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 the current COVID-19 pandemic which caused a sever economic crisis in Europe especially during the first half of 2020 in Luxembourg no payment holidays or moratoria have been introduced in the country for private loans by the Government. Some banks are offering moratoria on the repayment of existing loans to allow debtors to better weather liquidity difficulties. Furthermore, the Government has introduced a ban on evictions of residential and commercial lease.

In 2019, the Luxembourg market for mortgage loans has seen the number of fixed-rate loans further increase with respect to the variable-rate loans, now nearly 65% of new issuance, 5pp more than last year. The dynamism of the real estate market is driven by both demand and supply factors. Excessive demand has contributed to steep price increases exacerbated by migration-induced demographic pressures, the relatively strong purchasing power of resident households and 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 5,583 in 2019, increasing by 2.1% with respect to 2018, 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 2018	LUXEMBOURG 2019	EU 27 2019
MACROECONOMIC VARIABLES			
Real GDP growth (%) (1)	3.1	2.3	1.5
Unemployment Rate (LSF), annual average (%) (1)	5.6	5.6	6.7
HICP inflation (%) (1)	2.0	1.6	1.4
HOUSING MARKET			
Owner occupation rate (%) (1)	71.2	n/a	69.9*
Gross Fixed Investment in Housing (annual change)(1)	8.3	-6.7	3.3
Building Permits (2015=100) (2)	120.0	122.5	122.0
House Price Index – country (2015=100) (2)	119.9	123.4	125.5**
House Price Index – capital (2015=100) (2)	n/a	n/a	129.5**
Nominal house price growth (%) (2)	7.0	2.9	5.9**
MORTGAGE MARKET			
Outstanding Residential Loans (mn EUR) (2)	33,064	35,633	5,904,991
Outstanding Residential Loans per capita over 18 (EUR) (2)	68,145	71,839	16,165
Outstanding Residential Loans to disposable income ratio (%) (2)	145.8	154.0	62.9
Gross residential lending, annual growth (%) (2)	19.7	8.4	9.6
Typical mortgage rate, annual average (%) (2)	1.8	1.4	2.3**

* The aggregate EU figure is from 2018.
** Please note that this value is the simple average of the available values in 2019.

Sources:
(1) Eurostat
(2) European Mortgage Federation - Hypostat 2020, 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:	Six 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. (55% of loans issued in 2019 = fixed, and so 45% variable)
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 continued to experience significant economic growth in 2019, mainly driven by domestic demand.
- → Residential property prices increased further in 2019 marking a 6.5% increase in Q1 2019 with respect to Q1 2018.
- → Mortgages for house purchases grew 10.7% in 2019, totalling almost EUR 5.5 bn.

MACROECONOMIC OVERVIEW

The economy continued to expand although growth in GDP moderated to 4.7%, from 7.3% in 2018, still above the long-term average of around 4.0% and euro area growth of 1.2%. The expansion was driven by domestic demand, particularly government consumption and gross fixed capital formation. Private consumption still had a positive impact, although it increased at a slower pace following the very strong growth in 2018. This growth was reflected in the employment rate, which in 2019 reached another all-time high of 73.1% (71.6% in 2018). Unemployment averaged 3.4%, a historic low (3.7% in 2018). Productivity growth turned negative at -1.1% (+1.2% in 2018).

The government sustained its efforts to improve public finances, with gross public debt falling to 43.1% of GDP by the end of 2019 (45.6% in 2018). The general government surplus-to-GDP ratio reached 0.5% in 2019, significantly lower than the surplus of 1.9% of GDP for 2018. Price pressures remained contained as the annual average rate of inflation (HICP) was 1.5% in 2019, down from 1.7% in 2018, reflecting slower growth in the prices of services and nonenergy industrial goods.

HOUSING AND MORTGAGE MARKETS

The home-ownership rate stands at almost 80%. The number of housing construction permits increased to 12,485 (12,885 in 2018, 9,006 in 2017). Apartments were again by far the largest residential category, accounting for 86% of new building permits issued in 2019. 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 rise. According to the Property Price Index - which is based on actual transaction prices – for Q1 2019, published by the National Statistics Office, prices increased by 6.5% when compared to the corresponding quarter of the previous year (5.3%) and , substantively higher than the average 5.7% increase recorded in 2018.

Mortgages to residents for house purchases totalled EUR 5.5 bn at the end of 2019, up 10.7% from EUR 4.9 bn in 2018. The six core domestic banks extended almost 96% of the credit provided to households and individuals (which includes mortgage loans). The average loan-to-value ratio is 76%. Average interest rates on new residential loans eased slightly to 2.6% (2.7% in 2018).

Several factors contribute to the attractiveness of property investment: increasing of disposable income, the influx of foreign workers which reached 55,280 during 2018 and which increased demand for property and a growth in tourism which led to a strong demand for private accommodation. Moreover, some government-led initiatives served to further growth of the property market.

The stamp duty exemption for first-time buyers on the first EUR 150,000 of the value of the property ran to the end of 2019, while the scheme for subsequent buyers, first introduced in 2018, was extended.

Furthermore, the Malta Individual Investor Programme (MIIP) 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.

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 around 71% of the domestic retail market (as a percentage of total deposits held by the core domestic banks). They rely mainly on resident deposits for funding, with such deposits increasing in 2019 by almost 4%, to EUR 20 bn. With a loan-to-deposit ratio as low as 63% (as at June 2019), deposits provide ample liquidity to the banks, without recourse to securitisation or covered bonds.

	MALTA 2018	MALTA 2019	EU 27 2019
MACROECONOMIC VARIABLES			
Real GDP growth (%) (1)	7.3	4.7	1.5
Unemployment Rate (LSF), annual average (%) (1)	3.9	3.3	6.7
HICP inflation (%) (1)	1.7	1.5	1.4
HOUSING MARKET			
Owner occupation rate (%) (1)	81.6	79.8	69.9*
Gross Fixed Investment in Housing (annual change)(1)	19	3.7	3.3
Building Permits (2015=100) (2)	326.5	316.3	122.0
House Price Index – country (2015=100) (2)	130.8	n/a	125.5**
House Price Index – capital (2015=100) (2)	n/a	n/a	129.5**
Nominal house price growth (%) (2)	5.0	n/a	5.9**
MORTGAGE MARKET			
Outstanding Residential Loans (mn EUR) (2)	5,520	6,071	5,904,991
Outstanding Residential Loans per capita over 18 (EUR) (2)	13,920	14,687	16,165
Outstanding Residential Loans to disposable income ratio (%) (2)	n/a	n/a	62.9
Gross residential lending, annual growth (%) (2)	n/a	n/a	9.6
Typical mortgage rate, annual average (%) (2)	2.7	2.6	2.3**

* The aggregate EU figure is from 2018.
** Please note that this value is the simple average of the available values in 2019.

Sources:
(1) Eurostat
(2) European Mortgage Federation - Hypostat 2020, 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. A very limited number of smaller banks in the non-core category may also issue such loans. However, it appears that their share for such loans within the domestic market to date has not been significant.
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 72% of domestic retail banking (total assets) in Malta. Mortgage and consumer credit loans to household and individuals – which are provided almost exclusively by the core domestic institutions – totalled ERU 6.1 bn as at end 2019, with around 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 bn, 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 close to 76% as of June 2019.
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 Central Bank of Malta in 2019 issued CBM Directive No. 16 – Regulation on Borrower Based Measures, as a minimum standard by means of which the resilience of lenders and borrowers could be strengthened against the potential build-up of vulnerabilities which could result in financial losses to both parties stemming from potential unfavourable economic developments. The Directive includes 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 1.90 times (in 2019) 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

→ Housing market: high demand, lowering supply and rising prices.
→ Falling interest rates boosts pricing even further.
→ COVID-19, effect second half year.

MACROECONOMIC OVERVIEW

The Dutch economy grew by 1.8%, roughly the potential growth rate[1]. The increase was driven by domestic demand, both public and private. Consumer confidence was at a long-term average in 2019, which together with falling business confidence indicated the start of deceleration in the business cycle. All spending components increased at a slower pace than in 2018, except gross fixed capital formation. Changes in car subsidy schemes from the 1st of January 2020 incentivised business investment in (electric) vehicles before the end of 2019, while the public sector also accelerated investment (in infrastructure). Import growth outpaced export growth. Although still positive for the entire year, growth in housing investment was limited by a fall in building permits that in part resulted from strict enforcement of environmental policies.

The machinery industry, construction and real estate were the industries with the highest growth rate, while value added fell for temp work agencies and some manufacturing industries. The mining sector continued to shrink due to legal measures aimed at restricting gas production.

Economic growth was labour rich, which led to a fall in the unemployment rate to 3.4%. The number of vacancies reached a record high. This increase in labour market strain resulted in the strongest collective wage growth (2.6%) since 2009. Consumer price inflation (HICP) also rose to 2.6%, due to increases in taxation on value added and energy. Taxes as share of GDP increased to the highest since consistently measured since 1995. This and continuing increases in the tax base allowed government debt to continue to fall despite expansionary fiscal policy, from 52.4% of GDP in 2018 to 48.6% in 2019.

HOUSING MARKETS

The number of houses sold fell in the first half of 2019 but rose in the second half where overall more houses were sold throughout 2019 (218,595) than in 2018 (218,366). Except for 2017, there have never been so many houses sold in one year.

Houses are on average 6.9% more expensive than a year earlier. Prices grew more than expected due to a further fall in mortgage interest rates making buying a more attractive option than renting. Falling interest rates exert upward pressure on prices in the current tight market.

Another factor, besides the falling interest rates and increasing loans to influence the housing market is the shortage of around 315,000 houses, equivalent to a city the size of Rotterdam. The supply of existing houses for sale had already fallen further last year. Low supply will generate upward pressure on prices as the number of households will grow in the coming years. New construction is too low to close the shortage within a few years.

Particularly government policy at a local level is increasingly aimed at the affordability of the housing market. In 2019 discussions started, particularly at a local level, on how to put a brake on high price and rent rises. At a national level, higher transfer tax for buy-to-let investors and lower transfer tax for first time buyers is being considered. Another important development for the housing market is the discussion around a new investment yield tax. As from 2022, tax on savings will be reduced, but as the government wants to make this measure budget-neutral, investors will in fact be taxed more heavily. The idea behind this proposed policy is to improve the position of the first-time buyer.

MAJOR CITIES

In the major cities the number of sales has been falling during recent years. In 2019, for the first time, the number of sales in Amsterdam and Utrecht increased slightly more than average.

In Amsterdam, price rises even fell by 5.7%. Prices in Amsterdam are less likely to rise because prices rose rapidly quickly after the crisis. Since the first quarter of 2019, the Amsterdam house price has developed below the Dutch average. We see above average price increases in the other three major Dutch cities, Rotterdam, The Hague and Utrecht.

MORTGAGE MARKETS

MARKET DYNAMICS

The residential mortgage market recorded a very strong year in 2019. On the back of the rise in the number of home sales (mainly in the second half of the year) and especially due to a significant increase in the number of refinancing, the total new mortgage origination volume rose to a level of EUR 122.6 bn, according to data from the Land Registry. This was an increase of 14% compared to 2018.

According to Statistics Netherlands, total outstanding mortgages increased to EUR 722 bn in 2019, the highest ever. Despite this, the growth lagged developments in the housing market and broader economy. Partial repayments and a higher share of amortising mortgages meant that mortgage debt as percentage of GDP slightly decreased in 2019. In addition, the increase in new origination lagged house prices, resulting in the average LTV at origination declining further. Strict legal underwriting criteria, mainly concerning the debt-to-income (DTI) ratio, result in relatively less debt being taken on when purchasing a home. The use of own funds is increasing, especially in the bigger cities where house price appreciation has been the strongest.

[1] The potential growth rate is the speed at which economy could grow annually on average if all resources were being used most efficiently over the medium term. Said differently , this is roughly the growth rate based on the structural development of the population and production capacity

The statutory underwriting norms changed only slightly in 2019. The statutory LTV remained capped at 100%, and no change is foreseen over coming years. DTI norms hardly changed in 2019. As expected, the government has taken further steps to decrease the deductibility of interest payments from taxable income. Over the coming years, the deduction rate decreases by 3.0 pps per annum (2019: maximum of 49%). 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.

Mortgage interest rates fell further in 2019, especially in the second half. According to DNB, the average rate on new mortgages was 2.0% in December 2019, 50 bps lower than the year before. The average interest rate on outstanding mortgages was 2.9%, down 20 bps. Interest rate term fixings increased with 10-year, 20-year and increasingly 30-year fixings popular. On the back of the mortgage reforms in 2013, most new originations are amortising (i.e. full annuity or linear loans). About ⅓ of new originations are partially interest-onlyas 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.

UPDATES ON COVID-19

In response to this health crisis, we saw a contraction of the economy in the first quarter 2020 of 1.5% compared to a quarter earlier (preliminary figure). This is the largest contraction after the first quarter of 2009, when the economy fell by 3.6%.

As speaking (June 2020), we do not see a COVID-19 effect yet on the housing market in the Netherlands. Until April, the figures from the estate agents and the Land registry show growing numbers of sales. The number of sales up to and including April 2020 is the second highest number ever in the Dutch housing market. In the Netherlands, an indicator is also available to measure the extent to which buyers orient themselves towards the purchase of a home. This indicator shows a significant decrease when the Dutch have started working at home, but after that the number of orienting buyers has recovered and reached a new record high in May.

However, confidence in the owner-occupied housing market and the economy is declining. Our expectations are that this leads towards a decrease in home sales over time. Price development will level off, perhaps even falling a few months in Q4.

MORTGAGE FUNDING

The presence of non-bank lenders in the market continued to be high in 2019, even though banks slightly increased their market share again during the year. In addition to originations for their own balance sheets, Dutch banks have increasingly opted for so-called originate-to-manage models, in which they fund new originations by money allocated by institutional investors. Based upon Land Registry data, the market share of banks averaged 62% in 2019, while insurers had an average market share of 16%. Third-party originators, mainly acting on behalf of domestic pension funds but increasingly also for foreign parties, were responsible for approximately 22% of all new mortgage originations. From the funding side, whole-loan transfers or forward flow mandates on behalf of institutional investors continue to dominate, especially on the non-bank side. Banks still opted for the issuance of covered bonds as their preferred funding tool for mortgage portfolios, due to favourable funding conditions and longer available term funding.

	NETHERLANDS 2018	NETHERLANDS 2019	EU 27 2019
MACROECONOMIC VARIABLES			
Real GDP growth (%) (1)	2.6	1.8	1.5
Unemployment Rate (LSF), annual average (%) (1)	3.8	3.4	6.7
HICP inflation (%) (1)	1.6	2.7	1.4
HOUSING MARKET			
Owner occupation rate (%) (1)	68.9	n/a	69.9*
Gross Fixed Investment in Housing (annual change)(1)	9.3	1.6	3.3
Building Permits (2015=100) (2)	126.0	102.8	122.0
House Price Index – country (2015=100) (2)	123.1	131.6	125.5**
House Price Index – capital (2015=100) (2)	146.0	154.4	129.5**
Nominal house price growth (%) (2)	9.0	6.9	5.9**
MORTGAGE MARKET			
Outstanding Residential Loans (mn EUR) (2)	714,367	722,672	5,904,991
Outstanding Residential Loans per capita over 18 (EUR) (2)	51,785	51,900	16,165
Outstanding Residential Loans to disposable income ratio (%) (2)	187.5	183.0	62.9
Gross residential lending, annual growth (%) (2)	6.0	14.5	9.6
Typical mortgage rate, annual average (%) (2)	2.4	2.3	2.3**

* The aggregate EU figure is from 2018.
** Please note that this value is the simple average of the available values in 2019.

Sources:
(1) Eurostat
(2) European Mortgage Federation - Hypostat 2020, 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 2019 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 Bank Association

IN A NUTSHELL

- → The economy was still strong but started to slow in H2 2019.
- → New mortgage origination was its highest since 2010.
- → The number of new buildings completed was at its highest level since 2010.
- → Continuous growth of house prices – both on primary and secondary markets.
- → The Polish FSA is urging banks to offer more fixed rate mortgage loans.

MACROECONOMIC OVERVIEW

The economy remained strong in 2019, but with the first signs of slowdown the increase of real GDP in Poland in 2019 was 4.1%[1] (5.3% in 2018).

Domestic demand increased by 3.8% (5.3% in 2018), and investments in 2019 were 7.8% higher (8.9% in 2018).

Total gross value added in the economy in 2019 increased by 4.0% versus 5.1% in 2018. Industrial gross value added was 4.2% higher, in the construction sector it was 2.2% (compared with an increase of 12.2% in 2018).

The relatively strong economy is causing a further increase in employment, although the rate of growth is slowing due to both demand and supply side factors. Average unemployment was 3.3% in 2019 (3.9% in 2018).

The inflation rate (HICP) was 2.3% y-o-y in 2019 (1.6% in 2018). The increase was mainly due to food and fuel. At the same time, increases in garbage collection and insurance fees, as well as an increase in airline ticket prices, were reflected in higher levels of service prices. Higher growth in administered prices (mainly prices of waste disposal, gas and electricity) was also seen.

HOUSING AND MORTGAGE MARKETS

HOUSING MARKET

In 2019, another record was set in the housing market – over 207,000 new apartments were completed, almost 12% more than in 2018. Although the construction sector has been booming for several years, that was highest number of new completions since 1989. The development of new projects hasn't slowed – the construction of over 237,000 residential premises was started (growth of nearly 7% y-o-y) and building permits for another 268,000 apartments were issued (up nearly 4.5% compared to 2018).

Annual sales of apartments and contracts for their construction on the 6 largest primary markets in Poland at the end of the year amounted to approximately 65.4 thousand. The stock of unsold flats and contracts for their construction on these markets at the end of 2019 amounted to approx. 50.3 thousand. The average sale time on the primary market in the 6 largest markets remained at 3.1 quarters. This means quick sale of emerging offers and smaller choice of apartments.

In 2019, the residential property market was still in expansion, prices continued to rise. Offer and transaction prices were increasing both on the primary and secondary markets.

The estimated availability of flats in large cities (the number of square meters of residential property that can be purchased for an average monthly salary in the enterprise sector) was about 0.78 sqm. In the second half of the year, this indicator fell slightly due to a higher rise in housing prices than wages.

The persistent difference between transaction prices on the primary and secondary market in major cities means that buyers do not accept higher developers' prices and are shifting their demand to the secondary market. There are also too few relatively small flats being offered in relation to the demand. The price increase resulted in a gradual decrease of the average size of apartments. The average usable floor space of apartments, which were traded in the eight largest Polish regions fell to 53 m^2.

MORTGAGE MARKETS

In 2019, over 225,000 housing loans were granted. The total number of mortgages outstanding at year end was nearly 2.4 mn with a total value of PLN 443.1 bn (ca EUR 104 bn). The average value of a mortgage loans was over PLN 277,000 (ca EUR 64,500) an increase of nearly 10% since 2018. Loans with the highest LTV (over 80%) are the most popular and accounted for 43% of all new loans. The credit quality remained stable – according to the data published form the National Bank of Poland the ratio of NPLs amounted to 2.33% – 2.48% (depending on the quarter).

The state of the mortgage market was influenced by the overall good standing of the economy: low unemployment, wage increases, and historically low interest rates, which in turn supported ever-increasing housing prices. Conversely rising prices of building materials, land and labor costs in the construction sector also contributed to higher property prices. Growing inflation together with falling interest rates encourage customers to invest in properties., While the interest on bank deposits was cut to nearly 0%, the interest rates on mortgage loans were record low (on average: 4.3-4.4% in 2019). It's also worth mentioning that as WIBOR 3M (interbank rate) was nearly unchanged since 2015, the interest on mortgage loans became *quasi* fixed.

NON MARKET INITIATIVES

On 6 December 2019, the Polish Financial Supervision Authority (*Komisja Nadzoru Finansowego, KNF*) adopted an amendment to "Recommendation S regarding the management of mortgage-secured credit exposures". In the amended version of the Recommendation KNF obliged banks to introduce residential mortgage loans with a fixed rate or periodically fixed rate (min. 5 years). So far, nearly

[1] Source: Eurostat

100% of mortgage portfolio in Poland was made of variable rate loans – at the end of 2019 there were approximately 2,000 contracts with periodically fixed interest rate (out of over 2 mn residential mortgage contracts in force). The PFSA did not specify what part of the new portfolio should be made of fixed-rate loans, banks have to specify these limits themselves. Banks are also expected to grant their customers the right to change the variable interest rate to a fixed rate.

KNF proposed an introduction of another mortgage instrument – the "key for debt" option, which enables clients to discharge their mortgage debt by handing over the property to the bank. This solution however, remains optional for banks. The "key for debt" option would be a separate segment of the market, functioning in parallel to "traditional" mortgage loans, where the borrower is liable to the creditor for the value of the debt, and not for the value of the collateral. So far however, the banks were highly reluctant to introduce this type of instrument to the Polish market. KNF – at the stage of the draft Recommendation – also assumed that this option would be offered only to people in the best financial condition (own contribution of at least 30% of the property value and the installment amount not exceeding 35% of monthly income) and those who do not have other large financial liabilities. It's highly unlikely that this option would be introduced without additional changes in Polish law.

Commercial banks were supposed to implement the new Recommendation until 31/12/2020, and cooperative banks – until 31/12/2022. Due to COVID-19 pandemic, those deadlines were however postponed.

From January 1, 2019, the right a permanent leasehold on built-up land for residential purposes has been transformed by law into freehold. Around 2.5 mn property owners can benefit from this transformation. The fee will be payable over 20 years (although a one-off repayment with substantial discount is also possible). The amount of the fees will be equal to the annual lease payments.

ANY FURTHER IMPORTANT EVOLUTION

Lockdown was introduced mid-March 2020. Until then mortgage sales remained strong (around 5% increase y-o-y), but in April 2020 the effects of the pandemic were clearly visible. Both the number and value of new mortgage loans decreased by about 20% in comparison to March 2020. A noticeable shift in lending policy was seen. Firstly, banks introduced a requirement for an at least 20% down payment. Secondly interest rates were lowered by the Monetary Policy Council of National Bank of Poland from 1.5% to 0.1%. In order to compensate for lost interest income and due to the increase in uncertainty caused by the pandemic, many banks raised loan margins and other non-interest loan costs.

The pandemic resulted also in a decrease of the number of transactions. As of June 2020 the situation has returned to almost normal (most restrictions were mitigated), however due to potential problems in the economy, the demand for mortgage loans is expected to fall in 2020.

MORTGAGE FUNDING

The main funding instrument for mortgage loans in Poland is deposits, followed by covered bonds. According to the covered bond 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.

GREEN FUNDING

Two issuers: PKO Bank Hipoteczny S.A. and ING Bank Hipoteczny S.A. are active in the green covered bonds market. So far, PKO Bank Hipoteczny conducted 2 issues of green covered bonds, and ING Bank Hipoteczny 1 issue. The proceeds from green bonds issuance will be used to finance or re-finance real estates which belong to top 15% most energy efficient buildings in Poland (residential properties in case of PKO BH and commercial/ residential properties in case of ING BH). Both banks developed the criteria for energy efficiency evaluation in cooperation with German consultant Drees & Sommer.

	POLAND 2018	POLAND 2019	EU 27 2019
MACROECONOMIC VARIABLES			
Real GDP growth (%) (1)	5.3	4.1	1.5
Unemployment Rate (LSF), annual average (%) (1)	3.9	3.3	6.7
HICP inflation (%) (1)	1.2	2.1	1.4
HOUSING MARKET			
Owner occupation rate (%) (1)	84.0	84.2	69.9*
Gross Fixed Investment in Housing (annual change)(1)	-7.3	6.1	3.3
Building Permits (2015=100) (2)	132.1	140.5	122.0
House Price Index – country (2015=100) (2)	119.3	132.1	125.5**
House Price Index – capital (2015=100) (2)	134.2	145.8	129.5**
Nominal house price growth (%) (2)	11.2	10.7	5.9**
MORTGAGE MARKET			
Outstanding Residential Loans (mn EUR) (2)	100,579	108,382	5,904,991
Outstanding Residential Loans per capita over 18 (EUR) (2)	3,234	3,487	16,165
Outstanding Residential Loans to disposable income ratio (%) (2)	34.6	35.3	62.9
Gross residential lending, annual growth (%) (2)	10.4	3.9	9.6
Typical mortgage rate, annual average (%) (2)	4.4	4.3	2.3**

* The aggregate EU figure is from 2018.
** Please note that this value is the simple average of the available values in 2019.

Sources:
(1) Eurostat
(2) European Mortgage Federation - Hypostat 2020, 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:	43.36% of new loans granted in 2019 had LTVs over 80%; 35.45% - LTVs between 50-80%; 6.19% - LTVs between 30-50%; 15% - 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 63% of new lending belongs to that range in 2019).
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 to the 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:	There are currently no government subsidies for house purchases in Poland.

Portugal

By Banco Montepio

IN A NUTSHELL

- The economy grew by 2.2% (from 2.6% in 2018).
- The residential real estate prices renewing historic highs in 2019. However, despite the dynamism of housing prices, particularly in some segments and geographic areas, there was some stabilisation in the amount of real estate transactions throughout 2019, albeit at a high level.
- Bank loans to purchase houses exceeded the levels reached in 2010 (the all-time maximum of year-end data), demand was helped by the benign labour market and favourable financing conditions.
- Financing conditions for banks remained favourable and interest rates remained at historically low levels.

MACROECONOMIC OVERVIEW

The Portuguese economy has been growing since the three year long recession ended in 2014. The rate in 2017 (+3.5%) was the highest since 2000 (+3.8%), but it has since slowed to +2.6% in 2018 and 2.2% in 2019. Growth in 2019 reflected domestic demand, up 2.7%, (from +3.1% in 2018), reflecting a slowdown in both private and public consumption. Gross fixed capital investment (GFCF), and investment in stocks both increased.

For 2020, the COVID-19 epidemic will have a particularly strong negative impact on tourism and related activities.

Government debt declined in 2019 to 117.7% of GDP, (2018: 122.0%) the third consecutive year of decline from the 131.5% peak observed in 2016. The government's budget was positive in 2019 (+0.2% of GDP) for the first time since 1974.

The unemployment rate decreased 0.5 %, declining from 7.0% in 2018 to 6.5% in 2019, continuing the trend from the historic peak in early 2013.

Inflation, measured by Harmonised Consumer Price Index (HCPI), was 0.3% in 2019 (+1.2% in 2018 and +1.6% in 2017).

The savings rate was 6.8% in 2019, practically stabile compared with 2018 (6.7%). This stabilisation of savings rate, combined with the continued dynamism of residential investment, implied a further reduction in households' net financing capacity.

HOUSING MARKETS

Since the crisis and financial assistance program, the real estate market has been recovering. This is reflected in real estate prices, after a cumulative decline of 12.9% between 2008 and 2013, prices recovered an average of 4.8% between 2014 and 2016 and 9.7% between 2016 and 2019, and passed pre-crisis levels in 2017. The number of real estate transactions stabilised, albeit at a high level. In 2019, the INE's House Price Index (HPI) rose by 9.6%, 0.7% less than 2018, the first deceleration in three years. This applied to both existing dwellings (10.1%) and new dwellings (7.6%). For the third consecutive year, the difference in price appreciation of existing and new dwellings reduced, (2.5 % in 2019, 3.5% in 2018).

A total of 181,478 dwellings were sold in 2019, the highest number since this data has been available and an increase of 1.6% compared with 2018 (the lowest change since 2013). Existing dwellings accounted for the majority of transactions, 85.3%. The value of sales was EUR 25.6 bn in 2019, an increase of EUR 1.5 bn (6.3%). In the last five years, total sales value more than doubled (105.1%), the number of transactions grew 69.1%.

The average value of housing in 2019 was in EUR 1,276 per square meter[1], an increase of 7.5% this applied in all regions, with Algarve and North region appreciating fastest (+10.6% and +8.3%, respectively).

In the Financial Stability Report of December 2019, Banco de Portugal states that the analysis of the residential real estate market and, in particular, the cyclical position of housing prices, is essential given its importance for financial stability. The Banco de Portugal has revised several methodologies for valuing houses, which help identify periods of imbalanced price determination, Across the three approaches considered, periods of imbalance are identified: a brief period of overvaluation after joining the eurozone, the periods after the international financial crisis and sovereign debt crisis, marked by an undervaluation after a sharp fall in prices, and recently an overvaluation following significant price growth. They concluded that aggregate residential real estate prices show evidence of overvaluation since the beginning of 2018. Banco de Portugal considers that it is important to emphasize that the results obtained refer to prices in aggregate terms, with no granular information at the regional level, where some heterogeneity is expected. Overvaluation should be more pronounced in the Metropolitan Areas of Lisbon and Porto.

MORTGAGE MARKETS

MARKET DYNAMICS

According to the Banco de Portugal, private debt to disposable income has been on a downward trend since the second quarter of 2012. At the end of 2019 it was 97%, 1.6% less than at the end of the previous year, converging to the median for the euro area (95%). This was due to increasing disposable income, since the debt stock increased slightly – total loans to individuals rose 1.1% in 2019. Mainly from consumer loans. In turn, loans for house purchase and other purposes continued to decline through 2019. In the case of housing, the magnitude of this contribution decreased during 2019, standing at practically null at the end of the year. This evolution resulted from the increase in new loans and the interruption in the increase in repayments, which however continued at high levels.

[1] INE (Statistics Portugal).

New bank loans for house purchase continued to grow and exceeded the levels reached in 2010 (the all time maximum of year-end data). The growth at the end of the year has been associated with an increase in fixed rate loans. Survey data[2] shows that private individual demand for credit increased slightly from the second quarter of 2019, justified by low interest rates. Throughout 2019, despite the growth in housing prices, the number of real estate transactions stabilised, albeit at a high level.

Household investment in housing continued to be supported by the benign labour market situation and favourable financing conditions.

Interest rates on new housing loans to households decreased by 50 basis points. This rate was close to that in Spain and higher than the rate for the euro area as a whole. Other non-interest charges are higher in Portugal than in most euro area countries. Excluding these charges, which have remained relatively stable in recent years, the interest rate on new home loans is lower in Portugal than in the euro area average and in Spain.

NON-MARKET LED INITIATIVES

The Portuguese government approved at the end of March a six-month moratorium on bank loan repayments for families and companies affected by the COVID-19 outbreak. Banco de Portugal has relaxed some aspects of its macro prudential measures for consumer credit and announced a series of measures directed to smaller banks under its supervision, in line with the initiatives undertaken by the ECB and the EBA. These include permission to temporarily operate below selected capital and liquidity requirements; a recommendation to restrict dividend distributions; extension of deadlines of some reporting obligations; and rescheduling of on-site inspections and stress tests.

Of particular relevance to the housing market are the moratoria on payments for home loans, for home rental for furloughed workers, those made redundant, those eligible for support as self-employed and registered unemployed, all of which apply for borrowers who were not in arrears (of 90 days or more) prior to the crisis. Rent payments may be suspended if the household income has been reduced by at least 20% and that, for this reason, the rent will represent more than 35% of the value of the household's income.

MORTGAGE FUNDING

Portuguese banks have continued to benefit from favourable financing conditions at a time in which interest rates are at historical lows. The ECB's unconventional monetary policy measures continued to play an important role in this. In particular, the introduction of the third series of targeted longer-term refinancing operations (TLTRO) that took place in September and December 2019 allowed banks to finance themselves over long maturities at very low rates. The cost of financing banks through deposits continued to decline, remaining below the level in the euro area. Money market financing rates also decreased, after a period of stabilisation since 2017 Financing conditions were observed to be relatively stable compared to the previous year[3].

In the fourth quarter of 2019, the banking system's total assets decreased 1.3% compared to the previous quarter. This was largely due to the sale of foreign branches by one of the main Portuguese banks. The fall in assets in the final quarter of the year reflected the reduction in loans to customers (-1.3%) and holdings of public debt securities (-3.9%). Compared to the end of 2018, the banking system's total assets increased by 1.9%. The ratio of non-performing loans (NPL) fell to 6.1% at the end of 2019 (9.4% at the end of 2018), a result of a sharp reduction in NPLs from non-financial corporations (NFC) and from individuals. The NPL ratio net of impairments fell to of 3.0% (4.5% at the end of 2018). Since the historical maximum in June 2016, NPLs have decreased by 11% in the private segment, the ratio decreased from 5.1%, at the end of 2018, to 3.7%, at the end 2019, while in NFCS, the ratio went from 18.5% to 12.3%. The banking system's liquidity remained comfortable, with a loan-to-deposit ratio of 87.3% at the end of 2019, despite decreasing (89.0% at the end of 2018), and liquidity coverage ratio of 218.4%, above the value at year end, 2018 (196.4%), benefiting from the evolution of highly liquid assets. Financing obtained from central banks decreased to 4.4% of assets (5.3% at the end of 2018).

GREEN FUNDING

In Portugal, there is a program promoted by the Portuguese government (Efficient House 2020) aimed at providing loans for renovations that improve the environmental performance of private houses, with a special focus on energy and water efficiency, as well as urban waste management. Interventions may affect the building and its systems (e.g. lighting, ventilation, sanitary devices, hot water production).

This program, co-financed by the European Investment Bank and Portuguese commercial banks, aims to improve the energy efficiency of the buildings, promote the use of renewable energy, improve water efficiency and encourage environmentally responsible behaviour.

---

2 Source: Banco de Portugal

3 3-months Euribor rate as reference.

	PORTUGAL 2018	PORTUGAL 2019	EU 27 2019
MACROECONOMIC VARIABLES			
Real GDP growth (%) (1)	2.6	2.2	1.5
Unemployment Rate (LSF), annual average (%) (1)	7.1	6.5	6.7
HICP inflation (%) (1)	1.2	0.3	1.4
HOUSING MARKET			
Owner occupation rate (%) (1)	74.5	n/a	69.9*
Gross Fixed Investment in Housing (annual change)(1)	6.1	5.5	3.3
Building Permits (2015=100) (2)	245.4	291.8	122.0
House Price Index – country (2015=100) (2)	137.1	149.3	125.5**
House Price Index – capital (2015=100) (2)	127.0	141.1	129.5**
Nominal house price growth (%) (2)	13.1	8.9	5.9**
MORTGAGE MARKET			
Outstanding Residential Loans (mn EUR) (2)	93,952	93,846	5,904,991
Outstanding Residential Loans per capita over 18 (EUR) (2)	11,007	10,980	16,165
Outstanding Residential Loans to disposable income ratio (%) (2)	66.4	64.2	62.9
Gross residential lending, annual growth (%) (2)	19.1	8.0	9.6
Typical mortgage rate, annual average (%) (2)	1.4	1.2	2.3**

* The aggregate EU figure is from 2018.
** Please note that this value is the simple average of the available values in 2019.

Sources:
(1) Eurostat
(2) European Mortgage Federation - Hypostat 2020, 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 home loan market grew again in 2019, but less significantly than in the last three years. The latest available data about market concentration (as of 2017) shows that 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. In 2019, the largest institutions are expected to have continued representing the bulk of new mortgage production, although smaller players have also increased positioning efforts in the Portuguese mortgage market. *Source: Banco de Portugal, Retail Banking Markets Monitoring Report 2018.*
Proportion of outstanding mortgage loans of the mortgage issuances:	The seven largest institutions in Portugal are Millennium BCP, CGD, BPI, Santander Totta, Novo Banco, Banco Montepio and Crédito Agricola, which hold market shares of c. 26.0%, 23.7%, 19.7%, 11.4%, 10.3%, 5.8% and 3.0% respectively as of December 2019. *Source: Annual Report for each Bank; Banco de Portugal, EMG for the sector.*
Typical LTV ratio on residential mortgage loans:	Since July 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 July 2018. In December 2019, new credit operations with an LTV ratio between 80% and 90% represented around 50% of new operations. *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 2018 had an average maturity of 33.4 years (+1 month per contract compared to 2017), 7 months higher comparing to the contracts portfolio. *Source: Banco de Portugal, Retail Banking Markets Monitoring Report 2018 & 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 87.3% as of December 2019). On the customer perspective, commercial banks are the most common providers of mortgage. *Source: Banco de Portugal, Portuguese Banking System: latest developments, 4th quarter 2019*
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 2012 it is not 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, Alpha Bank Romania, and Ștefan Dina, Romanian Association of Banks

IN A NUTSHELL

→ Residential property prices fell in real terms for the first time since 2014.

→ Dwelling completions reached a historical high.

→ New prudential measures were introduced to limit household indebtedness.

MACROECONOMIC OVERVIEW

GDP grew by 4.1% in 2019 to EUR 11,500 per capita, equal to 37% of the EU27 average. It was the ninth year of growth and the fourth of wage growth. Construction and the service sector expanded, while agriculture and industry shrank. Gross fixed capital formation grew rapidly (17.8% y-o-y), consumption was up 6%. The contribution of net exports to GDP growth was -1.7%, slightly higher than in 2018 (-1.4%). The slowdown of imports was milder than that of exports and the growth gap between them widened to 3.5% from 3% in 2018.

The labour market tightened, with unemployment at a historical low of 3.9% and the employment rate of those aged between 15 and 64 although increased to 65.8% remained below the EU27 average by 2.6%. Double-digit wage growth for the fourth consecutive year was inflationary, HICP increased from 3% in December 2018 to 4% in December 2019.

The general government deficit increased to 4.3% of GDP in 2019 from 3% in 2018, fuelling the current account deficit to 4.6% of GDP from 4.4% in 2018. Although the gross public debt to GDP ratio slightly increased to 35.2% of GDP from 35% of GDP in 2018, remained among the lowest levels in the EU.

HOUSING MARKETS

Housing completions increased by 13% y-o-y, exceeding the historical high in 2008. The most buoyant NUT2[1] regions were the richest including Bucuresti-Ilfov where houses completion increased by 32% y-o-y and western regions North-West (25%) and West (15%). Residential construction will expand in the near future based on the number of licenses issued for residential construction in 2019, just slightly below the number for 2018 (-0.4%). The region where residential construction is likely to expand is along the seaside, South-East. In this region the number of licenses issued for residential construction increased most, by 11.6%.

Residential property prices rose by 3.4% (compared to 5.6% in 2018), new dwellings (1.8%) rose slower than existing dwellings (3.8%). Prices for apartments located outside the capital (up 4.4%) rose more than those in the capital (3.3%). The price increase in 2019 was 40% lower than in the previous year due to increased supply and lower demand from Jan 2019 with the central bank's imposition of a maximum debt service: to net income ratio of 40% for RON-denominated loans and 20% for foreign currency loans. This is 5% higher for first time buyers own dwellings. In 2019 for the first time since 2014, residential property prices fell[2], by 1.7%.

MORTGAGE MARKET

MARKET DYNAMICS

The ratio of residential and commercial loans to GDP has continued to decline from a maximum of 21.5% in 2012 to 14.4% in 2019. The decline of commercial mortgage loans could not be offset by the expansion of residential mortgage loans which reached 7.7% of GDP, almost the double the level of 2008.

The main change in the residential mortgage market was a rising share of domestic currency denominated mortgages from 65% in Dec 2018 to 72% in Dec 2019 as a result of prudential measures taken – which restrict foreign currency more than domestic currency indebtedness, – and not prices driven since the gap between the interest rates on domestic and foreign currency denominated loans remained quasi stable.

Significant disparities across regions persist. Around 41% of the stock of housing loans went to borrowers in Bucuresti-Ilfov region, well ahead of top-ranking regions North-West (12%), Centre (10%), West (9%) and South-East (9%). The regional divergence in housing loans per capita is even more stark. In Bucuresti-Ilfov region the average citizen has EUR 3,000 of housing loans, compared with North-West and West where the average is EUR 900. The same divergence is also seen for "First Home[3]" loans, hinting at the limited impact of the programme in terms of improving access to credit in the regions.

The non-performing loans ratio for mortgages has declined from 2.82% in Sep 2018 to 2.37% in Sep 2019[4]. The quality of loans extended to the commercial real estate sector has remained lower than that of the corporate sector overall, yet it has been steadily improving in recent years. The NPL ratio for direct exposures fell to 9.2% in Sep 2019 (down 3.3% from 2018 Q3).

According to the Bank Lending Surveys, the loan-to-value ratio for new standard housing loans to households fell slightly to 74% in 2019 (75% in 2018[5]). The average level of debt service to net income for new loans declined to 35% in 2019 Q4 from 43% in 2018 Q4, reflecting the prudential measure, referred to above. For all housing loans, the level of indebtedness was 43% in 2019 Q4 down 2% from 18 Q4.

1 Nomenclature of Territorial Units for Statistics (NUTS) 2 regions are regions with 0.8-3m inhabitants.

2 The ratio between house price index and the national accounts deflator for private final consumption expenditure (households and non-profit institutions serving households (NPISHs)). This indicator therefore measures inflation in the house market relative to inflation in the final consumption expenditure of households and NPISHs.

3 First Home (Prima Casa) Program – Romanian Government Program launched in 2009 to stimulate the real estate market. The loans are secured state guarantee for max 50% of the principal outstanding. The program imposes max 95% LTV and lower interest rates compared with standard mortgage products.

4 National Bank of Romania, Financial Stability Report, Dec 2019.

3 National Bank of Romania, Bank Lending Survey, Feb 2019 and Feb 2020.

ANY FURTHER IMPORTANT EVOLUTION

The COVID-19 crisis will impact the mortgage market in 2020 lowering both demand and supply. The government imposed a debt repayment moratorium until the end of the year for those requesting it.

MORTGAGE FUNDING

Deposits are the primary source of mortgage funding. During the last years residents' deposits increased faster than non-government loans (loans granted to households, non-financial companies and financial not monetary companies) such that the loan-to-deposits ratio declined from the maximum 1.3 reached in December 2008 to 0.73 in December 2019. Residents' deposits again grew rapidly (8.8%, the same rate as in 2018), the largest rate post 2008, mainly due to the expansion of household and corporate domestic currency deposits. Banks' external financing decreased, the proportion of liabilities in foreign currencies reached 7.1% in December 2019 down from 8.6% in December 2018.

Alpha Bank opened the covered bond market in Romania in April 2019 when it established its EUR 1 bn Global Covered Bond Program. The first issuance of EUR 200 mn took place on 16 May 2019.

	ROMANIA 2018	ROMANIA 2019	EU 27 2019
MACROECONOMIC VARIABLES			
Real GDP growth (%) (1)	4.4	4.1	1.5
Unemployment Rate (LSF), annual average (%) (1)	4.2	3.9	6.7
HICP inflation (%) (1)	4.1	3.9	1.4
HOUSING MARKET			
Owner occupation rate (%) (1)	96.4	95.8	69.9*
Gross Fixed Investment in Housing (annual change)(1)	-24.9	25.0	3.3
Building Permits (2015=100) (2)	109.2	108.8	122.0
House Price Index – country (2015=100) (2)	118.5	122.7	125.5**
House Price Index – capital (2015=100) (2)	121.6	125.6	129.5**
Nominal house price growth (%) (2)	5.5	3.5	5.9**
MORTGAGE MARKET			
Outstanding Residential Loans (mn EUR) (2)	15,820	16,999	5,904,991
Outstanding Residential Loans per capita over 18 (EUR) (2)	998	1,079	16,165
Outstanding Residential Loans to disposable income ratio (%) (2)	13.0	12.9	62.9
Gross residential lending, annual growth (%) (2)	1.2	0.3	9.6
Typical mortgage rate, annual average (%) (2)	5.2	5.5	2.3**

* The aggregate EU figure is from 2018.
** Please note that this value is the simple average of the available values in 2019.

Sources:
(1) Eurostat
(2) European Mortgage Federation - Hypostat 2020, 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 7 are foreign banks' branches. In addition, according to the National Bank of Romania's General Registry, a total of 65 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:	The average LTV ratio for new loans was 74%.
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):	Starting with 2009 the loans granted within the "First Home" Program have represented the main driver for mortgage lending in Romania. However, beginning 2018, the penetration of "First Home" loans in the new mortgage sales volumes dropped below 50%.
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 a 0.73 *(source: NBR, Dec. 2019)*. 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. Also, certain credit institutions have concluded agreements with the National Housing Agency to offer loans for the acquisition or construction of homes. 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 Matej Bašták, Slovenská sporiteľňa and Peter Jedinák, Allen & Overy Bratislava, s.r.o.

IN A NUTSHELL

- → Domestic economic growth slowed in 2019 after reaching the peak of its cycle; the labour market remained more favourable.
- → As regulatory lending standards have been tightened by the National Bank of Slovakia in recent years, household debt growth is expected to moderate.
- → Commercial real estate is in an expansionary phase; credit growth remains strong despite gradual slowdown.
- → Several major lenders issued benchmark covered bonds under the new Covered Bond Law in 2019.

MACROECONOMIC OVERVIEW

The pace of economic growth started to slow in 2019 after reaching the peak of its cycle in 2018. The real GDP growth reached 2.4% from 3.9% in 2018, reduced by lower growth in industrial production and foreign trade. Although household consumption weakened somewhat, it continues to help drive economic growth. The labour market kept showing mostly positive developments. The unemployment rate fell to an average of 5.8% for the full year 2019, in spite of slight increases towards year end. Nominal wage growth accelerated to 7.8%. Inflation has been driven mostly by food, service and energy prices and averaged 2.8% in 2019.

Slovakia's public debt ratio is consistently well below the Euro area average, at 48% of GDP in 2019, a decrease by more than a pp compared to the previous year. The government measures to cope with the COVID-19 pandemic will have substantial impact on the public debt but it should not exceed 60% of GDP.

Slovakia's public finances are sustainable, with debt and deficit levels below the targets laid out by the EU's Growth & Stability Pact. Constitutional debt limits provide an additional policy anchor against fiscal slippage. Nevertheless, the government ran a fiscal deficit around 1% despite rapid tax and levy revenues growth.

Household indebtedness continued to increase, reaching growth of 1.1 pps to 42.7% of GDP over the year. In contrast, corporate indebtedness fell by 0.7 pps, to 53.3% of GDP, since growth in loans to NFCs was lower than the economic growth. Despite this Slovakia remained among the five EU countries with the fastest growing private sector debt.

HOUSING MARKET

Slovakia has the second highest homeownership rate in Europe (behind Romania) with 91.3% of the population owning houses, exceeding by far the EU average (69.3%).

In the Bratislava region, which has the country's most expensive housing, residential property prices rose by 5.8% y-o-y to EUR 2,132 per m^2 in Q4 2019, after rising at a similar pace a year earlier. Other regions also saw robust house price increases.

- Three regions experienced high double-digit growth in 2019, Trencin being the fastest growing with 18.9% y-o-y to EUR 989 per m^2. Zilina (+17.6% to EUR 1,164 per m^2) and Presov (+17.3% to EUR 1,085 per m^2) followed.
- In 2018 in Nitra house prices increased by more than 20% y-o-y because of a new car production factory. In 2019 prices decelerated growing by 8.8% y-o-y reaching EUR 881 per m^2 in Q4 2019.
- Kosice region recorded a small short-term dip in house prices in 2019, but they surged by more than 30% y-o-y as of Q2 2020.

Overall, growth of real estate prices remained strong in 2019. The central bank indicates that the growth is only slightly above the growth of fundamental economic indicators. However, given the slowdown of economic growth and rising house prices, the situation is slowly becoming somewhat risky. The main drivers for the continued house price growth are in the situation in the labour market and extremely low interest rates with no signs of normalisation in short to medium term.

In addition, supply of available housing started to show shortages, mainly in Bratislava and regional capitals. Developers are visibly more cautious compared to the period before 2008. Newly started construction declined slightly (-2% y-o-y) to 21,500 units in 2019 while the number of finished dwellings rose by 5.8% y-o-y. This indicates that low supply might drive real estate prices up more in coming years.

MORTGAGE MARKET

The favourable economic situation of households, extremely low interest rates due to monetary policy, competition, and relatively contained house prices support growth in the mortgage market, which is among the three fastest growing housing loan markets in the EU. Despite a slowdown in annual growth, 9.7% growth in 2019 was significantly higher than the eurozone average of 3.8%.

There was high refinancing activity in the second half of the year. When the ECB declared that its key rate would remain stable for longer, local banks started to compete for new clients through aggressive pricing. Such competition led to a drop of interest rates on new housing loans from 1.48% in June to just 1.10% in December. As a result, share of contract changes (proxy for internal refinancing, considering that in the absolute majority of cases these consist of simple changes such as a new, lower, interest rate) on newly provided housing loans soared from 15% in 2018 to 35% in the second half of 2019.

The market is dominated by relatively short fixed period and the average maturity was around 25 years. More than 90% of new mortgages had the rate fixed for 1-5 years, with the majority of applicants opting for either 3 or 5 years. Floating rate mortgages are virtually non-existent. Almost half of new housing loans (volume wise) in 2019 were provided with maximum possible maturity of 30 years and only slightly more than 20% chose a maturity of 20 years or less.

The volume of non-performing housing loans remained constant, when combined with the rapid growth of total lending this resulted in a gradual decline of the NPL ratio.

One of the prominent features of the Slovak mortgage market is a high share of new loans intermediated through financial advisors. In 2019, slightly less than 62% of total volume were arranged via such external sales network. The National Bank of Slovakia (NBS) considers intermediated loans as somewhat riskier and sees intermediaries as too aggressive, pushing clients to limits in terms of indebtedness.

Thanks to NBS's macroprudential measures, the average Loan-to-Value (LTV) ratio declined from more than 75% in 2018 to slightly less than 73% in 2019 but remains at the higher end within the Euro area. The measures included a reduction in the share of new loans that can have an LTV ratio between 80% and 90% to 20% of new production and prohibition of new loans with an LTV greater than 90%. The reason cited by NBS were relatively elevated share of risky borrowers, excessive growth of household indebtedness and the risk of falling property prices. Other measures to fight these risks, which are currently in place, are limits on Debt-to-income ratio (DTI) and Debt service-to-income ratio (DSTI). The former was set to 8 in mid-2018. The latter is defined as a minimum reserve which must be left aside out of monthly net income after deduction of debt repayments and minimum living costs. The reserve had to be at least 20% in 2019.

At the end of 2019, NBS announced a further tightening of the DSTI limit applicable as soon as January 2020. The short notice period between the announcement and the effective date should have prevented frontloading as the market experienced just before the previous tightening had come into effect.

Undoubtedly, COVID-19 pandemic will have an impact on many areas of the economy. Although first data indicate that housing loans were hit only slightly during the lockdown also thanks to the payment moratorium which had an approximate 10% participation rate. The moratorium provides relief (upon debtor's request) from payment of loan instalments and interest for up to 9 months. Real estate prices continued to rise briskly in Q2 2020, and it seems that pro-growth factors outweigh the dip in the economic growth.

MORTGAGE FUNDING

Deposits are for banks one main source and for the building societes 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 building societes. 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, highly rated (triple A or slightly lower, depending on the actual over-collateralisation), therefore perceived as lower risk by investors. A new modern covered bond law applies from January 2018 and since then Slovak banks issued up to EUR 5 bn of the new covered bonds.

	SLOVAKIA 2018	SLOVAKIA 2019	EU 27 2019
MACROECONOMIC VARIABLES			
Real GDP growth (%) (1)	3.9	2.4	1.5
Unemployment Rate (LSF), annual average (%) (1)	6.5	5.8	6.7
HICP inflation (%) (1)	2.5	2.8	1.4
HOUSING MARKET			
Owner occupation rate (%) (1)	91.3	n/a	69.9*
Gross Fixed Investment in Housing (annual change)(1)	9.5	3.3	3.3
Building Permits (2015=100) (2)	116.6	115.5	122.0
House Price Index – country (2015=100) (2)	116.6	125.4	125.5**
House Price Index – capital (2015=100) (2)	116.5	124.2	129.5**
Nominal house price growth (%) (2)	5.2	n/a	5.9**
MORTGAGE MARKET			
Outstanding Residential Loans (mn EUR) (2)	28,271	31,001	5,904,991
Outstanding Residential Loans per capita over 18 (EUR) (2)	6,373	6,985	16,165
Outstanding Residential Loans to disposable income ratio (%) (2)	52.1	54.9	62.9
Gross residential lending, annual growth (%) (2)	9.6	0.6	9.6
Typical mortgage rate, annual average (%) (2)	1.5	1.4	2.3**

* The aggregate EU figure is from 2018.
** Please note that this value is the simple average of the available values in 2019.

Sources:
(1) Eurostat
(2) European Mortgage Federation - Hypostat 2020, Statistical Tables.

SLOVAKIA FACT TABLE

Entities which can issue mortgage loans:	Housing finance is raised from (mortgage) banks, building societes and the State funds with only minimum volume provided.
The market share of the mortgage issuances:	Approximately 96% came from the banks and 4% from **building societes**. State fund contributed with only negligible amount.
Proportion of outstanding mortgage loans of the mortgage issuances:	Banks had a market share of 92%, **building societes** of 8% and the state funds just 0.1%.
Typical LTV ratio on residential mortgage loans:	In 2019, 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:	NBS regulations define the purpose and eligible cover (i.e. residential property – flat, house, apartment house or land designed for housing construction) for residential loans. Non-residential loans cannot be included in the cover pools of the covered bonds.
Most common mortgage product(s):	Most mortgage loans taken out are loans with rates fixed for period of either 3 or 5 years.
Typical maturity of a mortgage:	Average maturity of new mortgage loan was about 25 years in 2019. Mortgage loans can 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 **building societes** the only source of funding for their mortgage market activities. Banks also fund their lending activities through issuance of Covered Bonds.
Level of costs associated with a house purchase:	Relatively low. Legal, notarial and registration costs are in the order of hundreds to thousands of euro (depending on property value and specifics of the transaction). No special taxes are payable. Real estate agents' fees are typically 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, eligibility limited by income and age of debtor; • State Housing Development Fund – providing loans with lower interest rates. But volume of state loans is low and conditions apply.

Slovenia

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

IN A NUTSHELL

- → The macroeconomic situation in Slovenia has been favourable, however GDP growth cooled down in 2019 due to more uncertain international context, while unemployment continues its decreasing path and inflation remains stable.
- → House prices in the country increased by 8% while in the capital by 2.5% y-o-y, a decrease from the respective 9% and 12% of 2018.
- → Demand for residential real estate slowed down as a result of diminishing affordability and shortage of marketable real estate.
- → Market confidence on the supply side of the market remained high, and investment in housing increased in 2019.
- → The risk indicators of housing lending within banks remained stable, however in order to curb financial risk previous macro-prudential recommendations have been transposed into binding measures.

MACROECONOMIC OVERVIEW

The economy cooled down in 2019 to 2.4% GDP growth from 4.1% in the previous year. The principal driver of this contraction is uncertainty in the international environment and in particular a slow growth of its most important trading partners which had a negative effect on the exports. The economic sentiment as well continued to slide down in 2019 mainly due to external factors. The main drives of growth were domestic demand and especially private consumption supported by rising employment and disposable income. Investment spending and residential construction also proved robust while investment in machinery and equipment grew less.

Labour market showed strong figures with unemployment decreasing by 0.6 pps to 4.5% positioning Slovenia below its pre-crisis level. The relative labour supply shortage is compensated by the inflow of foreign workers and the increase of employment figures which grew by 2.3%. Despite generally improved labour market conditions, long-term unemployment as well as elder unemployed especially in low-skilled sectors remain a concern.

Inflation in 2019 slightly diminished to 1.7% from 1.9% in the previous year mainly due to low energy and food prices.

Public finances have managed a general positive surplus in 2019 of 0.5%, a figure which fell from 0.8% surplus in 2018. This reduction was driven by the economic slowdown, increase in government expenditures and tax reductions.

HOUSING MARKETS

In 2019 house prices increased by around 8% y-o-y marking one of the highest aggregate increases in the EU, mostly due to the favourable economic situation, the buoyant labour market and the low level of investment in residential buildings. In Ljubljana house prices increased by a relatively modest 2.5%. The cumulative house price increase since 2015 was of 31% for the country and nearly 38% for the capital. The discrepancy in house price dynamics in 2019 is mostly explained by the start of deceleration in the capital where the sustained increase in house prices of the past years has started to mark a slowdown in the demand for residential building due to diminishing affordability and an increase in construction activity.

Despite decreases in demand, construction confidence indicators remain relatively high which is also supported by the ongoing increase in the amount of construction. Supply figures for 2019 registered over 4,300 new building permits, the highest figures since 2009, which consequently increased the real gross fixed investment in housing by 10.2%, one of the highest in the EU. At the same time transaction with little over 8,300 deals and housing completion figures with 2,975 units registered their lowest levels since 2015.

The relatively low completion figures can be in part explained by the severe labour shortage construction companies are facing of an appropriately trained labour force, an issue flagged by over 40% of construction companies. Regarding new-build real estate, the impact on the market will mostly depend on its realisation and affordability, i.e. actual completion of the projects coupled with realistic expectations from the investors particularly for the appetite for new housing units. Should their price target be set too high, many of the new units risk remaining unsold, thus repeating the premises of the financial crisis in 2007.

MORTGAGE MARKETS

Demand for residential real estate finance remained similar to the year before, with EUR 6.6 bn ouststanding and EUR 1.1 bn new issuance. While the proportion of homeowner with a mortgage remain relatively low at 12% compared to the EU it remains roughly in line with the other countries of Central and Eastern Europe.

The Bank of Slovenia modified the macroprudential measures in November 2019 changing them in part from a recommendation to binding measures. Regarding housing loans it stipulates that the cap of DSTI ratio can vary from 50% to 67% depending on the monthly income. LTV limit for housing loans remain a non-binding recommendation set at 80%.

The robustness of the banking system is reflected by the falling LTV figures which on average were 67.6% in 2019, whereas the DSTI was 37.7%. According to the Bank Lending Survey, credit standards for housing loans remained unchanged and tighter than the average in 2010. Slovenian households' financial liabilities are gradually increasing in absolute terms, but falling in relation to GDP and disposable income.

The rapid increase in loans to households compared with other portfolio segments is increasing the importance of the sector in terms of all bank assets and non-performing exposures (NPE), which in September 2019 account for 20% of the total NPE on banks' balance sheets. Inflow and outflow of NPEs for household loans remain relatively high, keeping the overall NPE ratio at a stable and low ratio of 2.6% for consumer loans and 2.1% for housing loans.

Interest rates on mortgages in aggregate reached 2.35%, a 9 bps reduction with respect to the previous year and still 2 bps above the all-time low registered in 2016. In 2019 the majority of Slovenians (52.8%) preferred a variable interest rate with a fixed period of up to 1 year, while in 2018 it was only 47.8%.

Against the background of the current COVID-19 outbreak the Ministry of Finance announced on 2 April the introduction of payment moratoria valid only for corporates, self-employed and farmers on all loan contracts of maximum 12 months. No moratoria for individual mortgages have been introduced.

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.

Finally, although legislation allows banks to issue mortgage backed securities, no securitisation of residential mortgages has yet taken place.

	SLOVENIA 2018	SLOVENIA 2019	EU 27 2019
MACROECONOMIC VARIABLES			
Real GDP growth (%) (1)	4.1	2.4	1.5
Unemployment Rate (LSF), annual average (%) (1)	5.1	4.5	6.7
HICP inflation (%) (1)	1.9	1.7	1.4
HOUSING MARKET			
Owner occupation rate (%) (1)	75.1	74.8	69.9*
Gross Fixed Investment in Housing (annual change)(1)	2.3	10.2	3.3
Building Permits (2015=100) (2)	128.7	198.6	122.0
House Price Index – country (2015=100) (2)	121.9	131.6	125.5**
House Price Index – capital (2015=100) (2)	134.5	137.9	129.5**
Nominal house price growth (%) (2)	8.9	n/a	5.9**
MORTGAGE MARKET			
Outstanding Residential Loans (mn EUR) (2)	6,239	6,587	5,904,991
Outstanding Residential Loans per capita over 18 (EUR) (2)	3,669	3,847	16,165
Outstanding Residential Loans to disposable income ratio (%) (2)	22.9	22.7	62.9
Gross residential lending, annual growth (%) (2)	-4.5	5.8	9.6
Typical mortgage rate, annual average (%) (2)	2.4	2.4	2.3**

* The aggregate EU figure is from 2018.
** Please note that this value is the simple average of the available values in 2019.

Sources:
(1) Eurostat
(2) European Mortgage Federation - Hypostat 2020, 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 average LTV ratio on new residential mortgages is of 67.6%.
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 2019 was 20 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

→ After roughly two years of delay, the mortgage credit directive was transposed into national law (*Law 5/2019*) and came into effect in June 2019.

→ The slowdown in mortgage and real estate markets stemmed mainly from the adaptation to the aforementioned new mortgage legal framework, against a background of economic slowdown. Its implementation and requirements in IT development caused the delay in the approval of some mortgage agreements during the first months of its entry into force.

→ Housing prices have broadly stabilised, with Madrid and Barcelona showing signs of having reached the end of the recent rally. In 2020 a downward price correction is expected because of the COVID-19 outbreak.

→ Covered bond issuers have benefited from very favourable financing conditions, in particular flattening yield curves and after two years of decreases, issuance has increased.

MACROECONOMIC OVERVIEW

In a context of heightened international uncertainty with trade and geopolitical tensions, the Spanish economy performed well, growing at a faster rate than average for the EU, but slower pace than in the preceding four years. Spanish GDP grew by 2.0% in 2019, as a result of a slow down in domestic demand – both household consumption and investment. In contrast, external demand grew, especially in the second half of the year, with faster growth in exports (+2.6%) than in imports (+1.2%).

The labour market continued to improve, even though growth rates and the quality of employment are insufficient, especially for young people. While the average unemployment rate stood at 14.1% in 2019, for young people it was 27%.

Inflation moderated to 0.8%, falling short of the ECB's 2% price stability target. Compared to 2018, this was largely the result of a significant decline in electricity prices and a much smaller increase in liquid fuel prices compared with 2018.

Public debt levels as a percentage of GDP continued to improve during 2019, albeit remains high. Public debt ratio stood at end-year at 95.5%, in comparison with 97.6% a year ago, thanks to GDP growth and a declining interest burden. However, 2020 a sharp increase in public debt, both in absolute terms and relative to GDP is expected due to public financial resources needed to address the pandemic and the GDP will fall.

HOUSING MARKETS

Overall, activity in the real estate sector moderated in the second half of 2019, after several years of growth.

From the supply side, 2019 saw a slight cooling of growth in real estate activity, the total number of housing permits issued rose to 106,000, an increase of 5.5% compared to 2018, representing a moderation in growth relative to the last four years. The private sector continued to dominate accounting for 99.5% of total permits issued. The number of housing completions grew by 22% reflecting buildings started 2 years earlier, with almost 79,000 units compared to the 64,000 units completed in 2018.

Housing demand remained strong, with 568,000 sales, but for the first time in five years, since the recovery began, sales fell, by 2.5% y-o-y. Aggravated by the difficulties of accessing housing for young people in recent years, this lower activity could also partly be due to the entering into force of *Law 5/2019 regulating real estate credit agreements*. The legislation introduced new features regarding transparency and the intervention of the notary public. The process of adaption to the new regulation delayed some housing transactions and had an impact on the formalisation of sales agreements. Investment in completed residential buildings increased by 2.7%, although far from the double-digit increases in the last five years.

In line with somewhat lower demand, house prices experienced a slight slowdown throughout 2019, growing by an average of 3.2% in 2019 compared to 3.4% in the previous year. This slowdown varied by provinces, extending to large regions such as Madrid (+5.7%) or Barcelona (+4.6%), which, although growing at an above average rate, moderated their upward trend from previous years. Price growth was more intense for news (+3.6%) than for existing dwellings (+3.2%), as the stock of housing under construction remains below needs, estimated at 150,000 units/year. Prices of newly built houses and of second-hand ones are expected to show different dynamics in 2020: as for the coming quarters new houses ones largely have their prices agreed under off-plan sales agreements, in the second-hand house market prices could be more sensitive to the current crisis.

MORTGAGE MARKETS

MARKET DYNAMICS

Although financing conditions remain extraordinarily competitive, the implementation of *Law 5/2019 on real estate credit agreements* has been one of the most significant milestones this year, having a direct impact on credit activity. During the course of this transitional year, a total of EUR 43.6 bn of residential mortgages were granted, around 1% higher than in 2018, a slowing of growth caused in part, by the new legislation and by market dynamics.

Given this level of new activity, the total outstanding mortgages again fell (-2.6%), albeit at a more moderate rate than previously. Reflecting the gradual deleverage of the domestic economy as a whole since mid-2009, the share of this relative to GDP is decreasing. As of December 2019, mortgages to GDP was below 40%, compared to 60% at the end of 2010. Reduced debt levels are even more significant in non-financial companies. In part, because their indebtedness was higher than for households. Outstanding credit of corporates (secured or not) has significantly decreased, from more than 90% of GDP in 2010 to below 43% today. Bank's policy of restructuring and removing from its balance sheets risky assets has also helped to decrease over-indebtedness, along with the massive sale of problematic asset portfolios in recent years (according to Axis Corporate, in 2019 EUR 17.4 bn were sold). As of December 2019, the Non-Performing Assets (NPAs) of the Spanish entities amounted to some EUR 85 bn, of which more than 65% were Non-Performing Loans (NPLs), while foreclosed assets amounted to approximately EUR 30 bn. This positive trend applies to all credit segments, and is especially significant in the construction and real estate sector, with an overall NPL ratio of 6.7% at the end of 2019, compared to over 37% in 2013.

Inevitably, the profound humanitarian and economic fallout of the COVID-19 pandemic will alter doubtful asset ratios in the coming months, to a greater or lesser degree, depending on the scope and intensity of the health and economic crisis, and on the levers used to overcome it. To this end, the financial sector will play an important role, as a key element for mitigating the effects of the crisis by supporting companies and households' day-to-day liquidity needs through credit.

NON-MARKET LED INITIATIVES

The Spanish mortgage market has been marked by the entry into force of *Law 5/2019* in June 2019, which was a result of the late transposition of the mortgage credit directive (Directive 2014/17/EU). Although some aspects were already regulated in our law, this legislation was necessary to strengthen legal certainty for the benefit of all stakeholders involved in the loan. This is especially relevant for a market such as Spain, where approximately 76% of real estate is owner-occupied and the rental alternative, despite incentives, lags well behind other EU countries.

This increased legal certainty is ensured through different provisions, such as those limiting default interest, prohibiting interest rate floors, the allocation of upfront costs of the mortgage, limits on early repayment charges, and tightening the requirements for the lender to start an eviction. Legal certainty is reinforced by greater transparency in the purchase process including: pre-contractual information, obligations on debtors to clarify that they understand the credit agreement (in front of a public notary, at least twice) and a thorough risk assessment.

Another important issue that attracted huge attention during the year was the Judgement on 3 March 2020 of the Court of Justice of the European Union (CJEU) following a preliminary ruling on the use of the Spain's IRPH mortgage benchmark. This statement held that the IRPH clause is subject to the terms of the Directive 93/13/EU, and consequently is liable to be submitted for analysis of its potential unfairness. To verify its transparency stated also that the specific functionating of the method used for calculating the interest rate must be comprehensible for a reasonably well-informed and observant consumer and to this end, stated that the calculation of the IRPH should be easily available (as occurred in the Spain as it is published in the Official State Gazette and manufactured by the Bank of Spain) and that financial entities must provide information on the IRPH fluctuations over the two years prior to the conclusion of the agreements (as Spanish law requires). With this in mind, given the terms of the judgement supporting the use of the index and stating that it is left to the Spanish courts to assess whether it was marketed complying with all the guarantees of transparency or not, its economic impact could be rather limited among the entities that have used this index. Although it is still too early, several provincial hearings have so far ruled in favour of lenders.

MORTGAGE FUNDING

Spanish banks have significantly strengthened their capital and solvency levels by more than 35 basis points, closing the year with a CET1 ratio of 12.6%. These levels are above the minimum regulatory requirements, albeit lower than those recorded by their European counterparts. In addition, banks have employed more secured sources of funding, such as mortgage covered bonds, whose issuance in 2019 rose by 47%, taking their outstanding balance to EUR 220.7 bn at year-end (+4.2% compared to 2018). Also, in 2019 there was a significant increase in mortgage securitisations after virtually zero activity in 2018, but it was nevertheless insufficient to offset maturities, so as the outstanding balance fell by 9.5%, to EUR 90.7 bn. In total, almost 50% of all mortgages were financed by these two instruments.

As for deposits, for the first time in recent years, Spanish private-sector credit has been supported by their own resources, with a loan-to-deposit ratio at 97.9% as of December 2019.

The Spanish financial system has gradually reduced its use of stimulus provided by the ECB under long-term financing operations, known as TLTRO, with a volume of EUR 132.6 bn as of December 2019 (21% of stimulus) compared to a volume of reserves held at the ECB of EUR 117.9 bn. As a result of the pandemic, an increase in take up of TLTRO can be already seen, the intensity of which will be largely determined by the capacity to overcome the economic effects of the pandemic.

	SPAIN 2018	SPAIN 2019	EU 27 2019
MACROECONOMIC VARIABLES			
Real GDP growth (%) (1)	2.4	2.0	1.5
Unemployment Rate (LSF), annual average (%) (1)	15.3	14.1	6.7
HICP inflation (%) (1)	1.7	0.8	1.4
HOUSING MARKET			
Owner occupation rate (%) (1)	76.3	n/a	69.9*
Gross Fixed Investment in Housing (annual change)(1)	7.7	2.9	3.3
Building Permits (2015=100) (2)	202.7	213.8	122.0
House Price Index – country (2015=100) (2)	107.8	111.3	125.5**
House Price Index – capital (2015=100) (2)	117.0	123.7	129.5**
Nominal house price growth (%) (2)	3.4	3.2	5.9**
MORTGAGE MARKET			
Outstanding Residential Loans (mn EUR) (2)	494,459	487,561	5,904,991
Outstanding Residential Loans per capita over 18 (EUR) (2)	12,908	12,631	16,165
Outstanding Residential Loans to disposable income ratio (%) (2)	66.1	62.7	62.9
Gross residential lending, annual growth (%) (2)	10.8	1.2	9.6
Typical mortgage rate, annual average (%) (2)	2.0	2.0	2.3**

* The aggregate EU figure is from 2018.
** Please note that this value is the simple average of the available values in 2019.

Sources:
(1) Eurostat
(2) European Mortgage Federation - Hypostat 2020, 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 the last years, in 2019 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 2019 the LTV ratio on new residential mortgage loans stood at 64% (according to Bank of Spain statistics). However, the most common LTV for FTB 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 increasing momentum, representing in December 2019 around 45% of gross lending.
Typical maturity of a mortgage:	According to Bank of Spain statistics, in 2019 the average maturity for new mortgage loans in Spain stood near to 24 years, with the most typical term for FTB being 30 years. As usual, the real amortisation period is usually lower, around 15 years on average.
Most common way to fund mortgage lending:	Covered bonds, RMBS/CMBS and deposits
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). As of 2019, after the new *Law 5/2019 regulating Real Estate Credit Contracts* was passed, all cost linked with the constitution of the mortgage must be afforded by the bank (Mortgage Stamp Duty – "AJD" Tax; notary, registry and agency fees), except the cost of the valuation property and the notarial copies requested by the client which correspond to the borrower. Another cost for the borrower which is compulsory when taking out a mortgage is the cost of fire insurance.
The level (if any) of government subsidies for house purchases:	In 2013 the tax deduction that had been into force for years aimed to homebuyers ended, remaining exclusively for those homebuyers who had purchased before that date. In 2018 a new State Housing Plan for 2018-2021 came into force 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. The eligible beneficiaries must buy a home in a municipality with less than 5,000 inhabitants and the amount granted under this scheme shall not exceed 10,800 euros per dwelling, limited to 20% of the purchase price.

Sweden

By Christian Nilsson, Swedish Bankers' Association

IN A NUTSHELL

- → Residential mortgage lending slowed down but still grew by 5.3% in 2019.
- → Construction also slowed down after reaching a peak in 2017.
- → Single family home prices increased in 2019 after being broadly unchanged in 2018.
- → The share of new loans with variable interest rates dropped by 10% to 59% of the total.

MACROECONOMIC OVERVIEW

Sweden's GDP increased by 1.7% in 2019 compared to 2.0% in 2018, according to Eurostat. Household consumption contributed with 0.5 % to total growth and public consumption 0.1%. Gross fixed capital formation decreased by 1.2%, reducing GDP by -0.3%. Residential construction is an important factor in gross fixed capital formation and fell in 2019. Residential construction made up 20% of gross fixed capital formation in 2020 compared to 21% in 2019 and 23% in 2017. Changes in inventories reduced GDP growth by -0.3%. Exports increased more than imports and therefore net exports added 1.1%.

Production of goods rose by 1.4% and services by 1.9% (for an average of 1.7%). Employment increased by 0.6%, however, if measured as the total number of hours worked, decreased by -0.4%, thus showing that the workforce has become more efficient while working fewer hours on average. Unemployment increased to 6.8% in 2019 from 6.4% in 2018.

Inflation was relatively stable during 2019, 1.8% at year end. Core inflation (Consumer Price Index with fixed interest rate) however decreased in 2019 and was 1.7% in the end of 2019.

Government debt[1] as a percentage of GDP was 35.1% in 2019, down from 38.8% in 2018, equivalent to a fall of SEK 24.8 bn in 2019 and SEK 38.2 bn in 2018[2].

HOUSING MARKETS

Housing completions have increased continuously since 2014 but slowed in 2019 to 53,400 dwellings (-2.6%). Completions are expected to level off due to a weaker housing market since the end of 2017, housing starts declined already from 2018 by -7.3% to around 48,800 dwellings. Despite this construction is at its highest since the beginning of the 1990s. Building permits decreased in 2019 by -16.5% to 52,300, still a fairly high figure in Sweden.

Stricter amortisation rules introduced in 2018 to curb interest-only loans still influence the housing market. They limit the possibilities for some groups to enter the housing market – especially in the larger cities, where new construction is not affordable to many individuals. Housing constructors are therefore slowing down planning and construction of new homes, although from relatively high levels.

Prices on single-family homes increased by 2.7% compared to unchanged prices in 2018. They are most expensive in Stockholm region where in 2018 prices decreased by -5.2% before increasing slightly (0.4%) in 2019. Single-family house prices in the Gothenburg and Malmö regions increased in 2019 by 3.1% and by 4.3% respectively. In the end of 2019 and in the beginning of 2020, before COVID-19, the prices increased further.

The prices for tenant-owned apartments recovered slightly, increasing by almost 2% compared to a drop in 2018 of around 5%.

The share of tenant-owned apartments among new construction is relatively stable. Overall, 38% of apartments are tenant owned and the rest are rented. For all (single family homes and apartments), the shares reverse: 62% owner occupied and 38% rental.

MORTGAGE MARKETS

MARKET DYNAMICS

Residential mortgage lending grew by 5.3% in 2019 compared to 6.1% in 2018. The growth rate has now been declining for four years in a row.

The demand for mortgage loans has continued and although amortisation of existing loans has increased, debt levels are relatively high. Several factors, which have been unchanged for many years, explain this. i) The population is growing due to high immigration and relatively high birth rates. ii) Internal migration towards larger cities has driven housing markets in those areas. This in combination with a long period of comparably low housing construction has created a shortage of housing. iii) Another factor is dysfunctional rental apartment markets in growth regions due to rent control and which leaves few opportunities to many other than to buy an apartment. To get a rental apartment with a first-hand contract on the regulated rental market and subject to a rent regulation means many years of queuing. If you move to a city in a growth region in Sweden and need a rental apartment without queuing, you normally have to pay a rent at a cost far higher than rents on the regulated first-hand market on the second hand contract market. iv) historically low mortgage interest rates which has a long term effect that borrowers can afford a larger amount of loans today than in the past. In a nutshell, in order to avoid long queues on the first hand market or the very high rent on the second hand market, people tend as an alternative to demand tenant-owed apartments or one-family homes if they can get a mortgage.

Mortgage interest rates have been relatively stable the last five years. The variable (3-month) rate has been between 1.3 and 1.6% during 2019, a similar range to that prevailing from 2015 to 2018. Initial fixed rates, 1-5 years, have

[1] Government consolidated Gross Debt, Maastricht definition.

[2] Eurostat.

ranged from 1.4 and 1.6%, slightly lower than in previous years. Initial fixed rates over 5 years have decreased further in 2019 and by year end were below shorter mortgage interest rates.

The share of households that amortise their mortgages (87%) and the size of these amortisations was unchanged in 2019[3] compared to last year although. Over a period of several years this has increased partly due to the stricter amortisation requirement.

The average LTV for new mortgage loans is 65.5% in 2019, which is slightly higher than in 2018.

The credit loss ratio on mortgage loans remained close to zero. due to high credit standards, the social welfare system, and house prices that have been almost continuously increasing for 25 years.

NON-MARKET LED INITIATIVES

A number of measures have been taken in recent years to counteract high indebtedness. In 2010 Finansinspektionen (the Swedish Financial Supervisory Authority), introduced a mortgage cap, whereby home loans may not exceed 85% of the value of the home. They have also introduced a risk weight floor for Swedish mortgages, currently 25%.

A further measure is the introduction of amortisation requirements. In June 2016 the Finansinspektionen's regulation on amortisation entered into force, requiring annual amortisation of at least 1-2% on mortgages with LTV (loan to value) 50% and higher. Stricter amortisation requirements entered into force from March 2018 requiring additional annual amortisation of 1% on mortgages with LTI (loan to income) from 450% or higher. Due to the COVID-19 outbreak in 2020 a general easing of these rules was introduced in April 2020, allowing exceptions such as interest only mortgages until August 2021.

Finansinspektionen has also focussed on commercial real estate in 2019, and at year end they announced additional capital requirements for commercial real estate which will apply from 2020 through Pillar II-requirements. The risk weight for the new additional capital requirements is 35% for commercial real estate and 25% for commercial residential properties[4].

ANY FURTHER IMPORTANT EVOLUTION

Several measures have been taken to address the impact of COVID-19 on the financial markets. The Riksbank initiated purchases of covered bonds in March.

Outstanding mortgage loans growth rate in April 2020 is increasing compared to the previous months. Outstanding mortgage loans increased in April by 5.7% on an annual basis compared to 5.4% in March and 5.3% in December 2019.

MORTGAGE FUNDING

Covered bonds is the most common form of mortgage funding. During 2019 the number of covered bonds outstanding increased by 9.9% (in SEK) to EUR 235 bn, compared to outstanding residential mortgages of EUR 423 bn. New issuance was EUR 53 bn in 2019.

GREEN FUNDING

Most Swedish mortgage institutions and banks offering mortgages, also offer different kinds of green mortgages. Green mortgages typically have a 0.1% interest rate discount if the residential property fulfil certain energy standards. The last years some institutions have started to issue green covered bonds to fund the green mortgages.

	SWEDEN 2018	SWEDEN 2019	EU 27 2019
MACROECONOMIC VARIABLES			
Real GDP growth (%) (1)	2.0	1.2	1.5
Unemployment Rate (LSF), annual average (%) (1)	6.4	6.8	6.7
HICP inflation (%) (1)	2.0	1.7	1.4
HOUSING MARKET			
Owner occupation rate (%) (1)	64.1	63.6	69.9*
Gross Fixed Investment in Housing (annual change)(1)	-6.4	-8.2	3.3
Building Permits (2015=100) (2)	109.8	91.7	122.0
House Price Index – country (2015=100) (2)	117.4	121.2	125.5**
House Price Index – capital (2015=100) (2)	108.8	109.3	129.5**
Nominal house price growth (%) (2)	0.0	3.2	5.9**
MORTGAGE MARKET			
Outstanding Residential Loans (mn EUR) (2)	409,173	422,742	5,904,991
Outstanding Residential Loans per capita over 18 (EUR) (2)	51,155	52,353	16,165
Outstanding Residential Loans to disposable income ratio (%) (2)	174.2	177.8	62.9
Gross residential lending, annual growth (%) (2)	-6.9	-1.1	9.6
Typical mortgage rate, annual average (%) (2)	1.5	1.5	2.3**

* The aggregate EU figure is from 2018.
** Please note that this value is the simple average of the available values in 2019.

Sources:
(1) Eurostat
(2) European Mortgage Federation - Hypostat 2020, Statistical Tables.

[3] Finansinspektionen, The Swedish Mortgage Market (2020), page 18. https://www.fi.se/en/published/reports/swedish-mortgage-reports/the-swedish-mortgage-market-2020/.

[4] Finansinspektionen, Increased capital requirements on bank loans for commercial real estate. https://www.fi.se/en/published/press-releases/2020/increased-capital-requirements-on-bank-loans-for-commercial-real-estate/.

SWEDEN FACT TABLE

Entities which can issue mortgage loans:	There are no specific limitations as regards issuing mortgages. 99.5% of all mortgage lending in Sweden is issued by banks and credit market institutions. New non-bank actors like mortgage credit companies and AIF (Alternative Investment Funds) have entered the market since a couple of years and made up 0.5% of the mortgage market in 2019.
The market share of the mortgage issuances:	There is an approximate share of 70% for credit market institutions (mortgage credit institutions) and 25% for banks. Other actors like mortgage credit companies and AIF (Alternative Investment Funds) had a market share of approximately 5% of new mortgages in 2019.
Proportion of outstanding mortgage loans of the mortgage issuances:	Mortgage institutions have approximately 75% of outstanding mortgages and banks approximately 25%. Mortgage credit companies and AIF (Alternative Investment Funds) have 0.5% of outstanding mortgages.
Typical LTV ratio on residential mortgage loans:	According to Finansinspektionen the average LTV for new mortgage loans in 2019 was 65.5%.
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, even though the share of variable interest rate decreased in 2019.
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.

Iceland

By Lúðvík Elíasson, Central Bank of Iceland and Magnús Árni Skúlason, Reykjavik Economics ehf

IN A NUTSHELL

→ The Government has introduced a bill to support first time buyers. The programme is an equity lending programme based on the Scottish government "Help to buy" scheme. The equity lending can be up to 20% of the price of a newly built apartment. It is expected that the programme will become a law in the autumn of 2020.

→ The government launched in 2016 a programme for affordable renting where subsidies (i. stofnframlög) are provided for newly built apartments. The programme is partly focused on the rural areas and smaller villages in Iceland, where building costs exceed market price.

→ Green mortgages are non-existent in Iceland but green bonds are slowly emerging in the general bond market.

MACROECONOMIC OVERVIEW

GDP growth slowed to 1.9% in 2019 according to the most recent estimates, following an average growth of 3.4% per year from 2010 to 2019, it was expected to contract in 2020, even before the COVID-19 pandemic. The rapid growth during the preceding years had been largely driven by the expanding tourism sector which had overtaken fisheries and aluminium as the country's main export. Growing tourism had been supported by immigration which in recent years even surpassed the levels seen before the financial crisis of 2008. Although unemployment has risen marginally since 2018 it remained low, around 3.6% in 2019, despite some bankruptcies and layoffs in the tourism sector amidst a falling supply of flights to the country. The economy was already starting to slow when the COVID-19 emerged. Despite a relatively promising development of the disease in Iceland so far and relatively mild responses the negative effects on the tourism industry weighs heavily on the economic outlook with the Central Bank forecasting 7% contraction in GDP in 2020.[1] Unemployment is expected to peak at 10% at the end of 2020 accounting for emigration of some foreign workers and mitigating government policies.

Iceland has historically experienced higher inflation than the EU-27 countries on average. Over the past half-decade inflation has been stable and within the monetary policy objectives of the Central Bank of Iceland, due to less volatile exchange rates and more efficient transmission of the monetary policy. Inflation in 2019 was 3.0% and is now expected to return to the 2.5% in 2021 as price effects of a depreciation of the currency are offset by contraction in domestic demand. Inflation expectations appear to remain anchored at the policy rate despite the ongoing turmoil in the local as well as global economies.

HOUSING MARKETS

The Icelandic housing market has traditionally been an owner occupied market. Owner-occupancy was at its highest levels in 1990 according to the consumer survey of the Statistics Iceland – at 89%.[2] After the international financial crisis that changed substantially. Currently the owner-occupancy rate is about 79%.[3]

After a slump following the crisis demand has been increasing over the past decade. There has been strong growth due to first-time-buyers and immigration. The supply of new housing units was limited after the crisis, but housing starts soared in 2017 and 2018. Housing units under construction at year-end in 2018 amounted to around 13 units per 1,000 inhabitants, close to the long term average (1983-2018).[4]

Housing completion per 1,000 inhabitants was 8.3 in 2019. Total number of completed housing units was 3,033 in Iceland, of which 2,046 were in the Reykjavik Capital Region. Other housing activities are principally around Keflavik International Airport and the Southern Region within 50 km of Reykjavik.

First time buyers represent approximately a quarter of all residential transactions over the past four years and were 29% in the second quarter of 2020. Post crisis first time buyers accounted for roughly 6% of all transactions in the first quarter of 2009.[5]

MORTGAGE MARKETS

MARKET DYNAMICS

Major restructuring of commercial and housing mortgages took place after the crisis in several stages[6]. FX denominated mortgages where ruled illegal and redenominated in Icelandic krona. CPI-indexed mortgages, which had risen in tandem with inflation while house values had fallen, where revalued at 110% of estimated value of the property (i.e. with negative 10% equity in the home) in the cases where the current value of the loan exceeded the value of the property by more than 10%. In 2013 index-linked mortgages which had not qualified for reduction due to payment difficulties following the crisis were also reduced at a significant cost to the Treasury. This was presented by the government as a use of funds stemming from a charge to the bond holders of the failed banks. This debt restructuring did not benefit renters or those that had experienced foreclosures. After these governmental action, arrears dropped substantially and have been low over the past half a decade. About 1.9% of lending by systemically important banks to households were in arrears at the end of 2018 but this had risen to 2.5% by the end of April 2020.[7]

Non-indexed mortgages have become more popular over the past few years. A break-down of household debt to the financial sector shows that while total

1 https://www.cb.is/library/Skraarsafn---EN/Monetary-Bulletin/2020/May-2020/Monetary%20Bulletin%202020_2_heildarskjal.pdf
2 https://timarit.is/page/7151744#page/n15/mode/2up
3 https://reykjavik.is/sites/default/files/2018_11_16_greining_fasteignamarkadar_i_reykjavik_1.pdf
4 https://statice.is/statistics/business-sectors/industry/constructions/
5 https://www.skra.is/thjonusta/gogn/talnaefni/hverjir-eiga-vidskipti-med-ibudarhusnaedi-og-fyrstu-kaupendur/
6 (Skúlason 2011) (ed. Whitehead & Lunde)
7 https://www.cb.is/library/Skraarsafn---EN/Financial_Stability/2020/Financial_Stability_2020_1.pdf

household debt fell from 122% of GDP at the end of 2009 to 76% at the end of 2019 (and 76.8% in Q1 2020) CPI indexed debt of the households fell from 93% of GDP to 53% while non-indexed debt in Icelandic krónur grew from 3% of GDP to 22% and FX debt fell from 17% to 0.1% during the same period. Currently (April 2020) the ratio of non-indexed loans has risen to 29%.[8]

Traditionally the rate on mortgages was fixed in real terms while the outstanding amount moved in line with the CPI. After the commercial banks entered the mortgage market in 2004 variable rate indexed loans became the norm and in particular in late 2007 and early 2008, FX denominated loans with variable rates became popular. After the financial crisis the non-indexed variable rate mortgages issued by the banks have slowly been gaining popularity, although a sizable share of borrowers always prefer indexed mortgages. Over the past few years the pension funds have again been increasing their presence in the mortgage market and they have been able to issue indexed mortgages with either fixed or variable rates significantly below the rates offered by the banks.

The Central Bank's main rate has been lowered significantly over the past couple of years and particularly in response to the COVID-19 crisis. At the beginning of 2020 it stood at 3.0%, the lowest level on record. In June 2020 it was reduced to 1.0%, and the banks were issuing record levels of mortgages for transactions and refinancing, with most borrowers opting for variable rate non-indexed loans. The state-run Housing and Construction Authority (previously the Housing Financing Fund) that used to be the principal mortgage provider before the crisis now makes almost no new loans although it still has substantial outstanding mortgages in a wind-down process in the ÍL-Fund.

Limited data is available on commercial mortgages, but outstanding debt of the commercial sector excluding financial firms was around 252% at year-end 2018. It does not reflect mortgaged commercial buildings.[9]

NON-MARKET LED INITIATIVES

The Government of Iceland has introduced a bill to Parliament to support first time buyers. The programme is an equity lending programme based on the Scottish government "Help to buy" scheme. The equity lending can be up to 20% of the price of a newly built apartment. It is expected that the programme will become a law in the autumn of 2020.

MORTGAGE FUNDING

Mortgage funding has two principal sources. Pension funds lend directly and banks fund their lending with deposits and covered bonds. FX denominated mortgages have been non-existent in the market post the IFC.

The investors in the covered bonds issued by the Icelandic banks are principally pension funds, insurance companies, and mutual funds.

Interest rates on pension funded mortgages are correlated with the policy rate of the Central Bank of Iceland.

Prior to 2004 the government owned Housing Financing Fund (HFF) was the main lender in the mortgage market with pension funds playing a secondary role. At the beginning of the century the HFF was financed by issuing marketable bonds which were largely bought by the pension funds. These bonds as well as the mortgages carried fixed rates and were indexed to CPI. In 2004 banks started offering similar mortgages which were either financed by matching issues of mortgage backed securities or by deposits. The banks soon started to offer variable rate indexed mortgages as well. In 2004 the HFF and the banks issued mortgages with LTV at 90% and in some cases and for a short while up to 100%. Variable rate FX mortgages only became popular in 2007 and 2008 but these were abandoned after the financial crisis. Over the past decade banks have been issuing indexed and non-indexed mortgages with variable or fixed rates and they have been financed with a combination of covered bond issues and deposits. The HFF stopped issuing bonds in January 2012. However, due to large prepayments at the HFF it has bought a large share of the covered bond issues of the banks. Over the past few years the pension funds have increased their share of mortgages but these are financed through the mandatory pension contributions. The pension funds have found it easier than the banks to mirror the recent drop in the Central Bank's policy rate.

GREEN FUNDING

The Icelandic banks are currently reviewing their loan portfolios in terms of green lending, e.g. electric cars, bikes and smaller renewable energy projects. Housing and commercial real estate is still pending.[10]

	ICELAND 2018	ICELAND 2019	EU 27 2019
MACROECONOMIC VARIABLES			
Real GDP growth (%) (1)	3.8	1.9	1.5
Unemployment Rate (LSF), annual average (%) (1)	2.7	3.5	6.7
HICP inflation (%) (1)	0.7	2.0	1.4
HOUSING MARKET			
Owner occupation rate (%) (1)	n/a	n/a	69.9*
Gross Fixed Investment in Housing (annual change)(1)	15.5	31.2	3.3
Building Permits (2015=100) (2)	n/a	n/a	122.0
House Price Index – country (2015=100) (2)	142.6	149.0	125.5**
House Price Index – capital (2015=100) (2)	140.6	145.7	129.5**
Nominal house price growth (%) (2)	8.2	4.4	5.9**
MORTGAGE MARKET			
Outstanding Residential Loans (mn EUR) (2)	12,357	n/a	5,904,991
Outstanding Residential Loans per capita over 18 (EUR) (2)	46,097	n/a	16,165
Outstanding Residential Loans to disposable income ratio (%) (2)	n/a	n/a	62.9
Gross residential lending, annual growth (%) (2)	18.5	n/a	9.6
Typical mortgage rate, annual average (%) (2)	3.9	3.6	2.3**

* The aggregate EU figure is from 2018.
** Please note that this value is the simple average of the available values in 2019.

Sources:
(1) Eurostat
(2) European Mortgage Federation - Hypostat 2020, Statistical Tables.

8 https://www.cb.is/library/Skraarsafn---EN/Financial_Stability/2020/Financial_Stability_2020_1.pdf

9 https://hagstofa.is/talnaefni/efnahagur/thjodhagsreikningar/fjarmalareikningar/

10 https://www.vb.is/frettir/fossar-efla-graena-skuldabrefautgafu/157814/ — https://reykjavik.is/frettir/reykjavikurborg-fyrst-til-ad-skra-graen-skuldabref-markad

ICELAND FACT TABLE

Entities which can issue mortgage loans:	Deposit taking corporations (banks), Pension Funds, the Housing and Construction Authority.
The market share of the mortgage issuances:	In the year 2019 the market share of deposit taking banks was 56% and the pensions fund's share was 44%.
Proportion of outstanding mortgage loans of the mortgage issuances:	At year-end 2019 the deposit taking banks held 55% of the total outstanding mortgages to households, the pension funds 29% and IL – Fund (in winding-up) 16%.
Typical LTV ratio on residential mortgage loans:	The maximum LTV is 85%, but up to 90% for first time buyers (limit to price).
Any distinction made between residential and non-residential loans:	The Central Bank currently makes a clear distinctions between those loans in its accounts. Banks and pension fund require a pledge in the underlying property for a new mortgage.
Most common mortgage product(s):	Indexed residential mortgage loans for 25 to 40 years (statistics needed)
Typical maturity of a mortgage:	25 to 40 years
Most common way to fund mortgage lending:	Covered bonds and deposits in the case of banks. Members funding in terms of pension funds.
Level of costs associated with a house purchase:	Stamp duty – 0.8% of the official property valuation (fasteignamat) for individuals and 1.6% for rental companies/legal entities.
The level (if any) of government subsidies for house purchases:	The government has introduced help to buy programme and pays interest expense benefits to low income households. First time buyer pay half of the stamp duty.

Norway

By Michael Hurum Cook, Finance Norway

IN A NUTSHELL

- → House prices remain stable supported by favourable macroeconomic conditions and low unemployment.
- → Interest rates higher in 2019 due to central bank policy.
- → Temporary mortgage lending regulation extended.
- → Green mortgages offered by several banks.
- → Negative effects from COVID-19 – dampened by measures from the authorities.

MACROECONOMIC OVERVIEW

The Norwegian economy has performed well since 2016, supported by economic improvement abroad, improved competitiveness, higher oil prices and low interest rates. The labour market has been strong and solid wage growth has supported private consumption. Since September 2018 and through 2019 the Norwegian central bank raised its key policy rate four times, reflecting the favorable macroeconomic situation.

The ramifications from the pandemic is poised to have a significant impact on economic activity in 2020 in Norway as in the rest of the world. The Norwegian authorities have launched several measures to counteract the negative consequences including a temporary compensation scheme for companies covering substantial losses in earnings, and public guarantees of loans granted to companies by credit institutions in order to meet immediate liquidity needs. The central bank has also cut the key policy rate from 1.5% to a record low 0%.

HOUSING MARKETS

House prices have grown more slowly in recent years than in previous periods. Prices for residential property in Norway grew by 2.6% in 2019. Oslo experienced the strongest growth with a rate of 5.5%. Other large cities also experienced growth with the exception of Stavanger (-2.7%). The price level in Oslo continues to be well above the levels in other large cities in Norway.

Prices of apartments grew by 4.3%.The number of apartments put up for sale grew by 2.5% and actual sales grew by 2.9%. For single homes the price growth was 4% with a 2% increase in both homes put up for sale and sold. Prices for houses with two dwellings, row house etc. grew by 2.8%. 3.7% more were put up for sale and 3.8% more were sold.

Housing starts peaked in the beginning of 2017 after a period of high growth in house prices. Since then new building has come down to previous levels of about 25,000 per yeary. Housing completions have lagged and ended with a total of 30,397 in 2019. The number of building permits has remained over 30,000 for some years and was 31,774 in 2019. The number of transactions increased by 1.5% to 119,950 last year. This is still slightly below the amount in 2016 when transactions peaked at 121,578.

House prices immediately fell amid the economic lockdown in response to the pandemic in the beginning of 2020. With the gradual reopening of the economy, record low interest rates and massive fiscal stimulus house prices have recovered losses and activity in the housing market has risen substantially.

MORTGAGE MARKETS

Norwegians tend to own their home. Around 82% of the adult population (16 years or older) live in a home which the households own themselves. This, together with factors such as increase in income, low interest rates and urbanisation has influenced Norway's strong housing demand over the years.

New mortgages are typically written with an approximately 25-year maturity. In Norway there is no prepayment penalty on floating interest rate loans, and it is also easy to move the mortgage to another institution. Almost all loans to households secured on dwellings are granted by banks and mortgage credit institutions. Lending to households in Norway other than mortgages is limited.

The demand for mortgages continued to increase in 2019. Outstanding residential loans increased by 5.4% to NOK 2m943 bn despite the 3 hikes in the key policy rate that lead to an average interest rate of 2.75% on new residential loans. According to an annual survey by the FSA conducted each autumn the average LTV for new mortgage loans rose by 1% to 65%.

Defaults on mortgages have been very low for a long time. The latest figure (2018) from the FSA was 0.11%. Even during the banking crisis in the early 1990s, losses on mortgages were not severe for Norwegian banks.

In 2019 there were two key developments for the mortgage market. The first was the new Debt Information Act that lead to required reporting from banks and other financing companies on consumer loans and credit card debt to central debt registers. Banks can now access these registers and receive updated information on a borrowers' unsecured debt, and hence receive a complete picture of a borrowers' debt situation. The second factor was a new expiration date for the specific mortgage regulation which was established to ensure sustainable household debt levels. The current regulation is in force until 31 December 2020 and consists of the following requirements:

- Loan-to-value (LTV) requirement of maximum 85%
- Stress test: Households must be able to service their debt in the event of a 5 pps increase in mortgage rates
- Maximum debt-to-income (DTI) ratio requirement of five times gross annual income
- A minimum principal payment requirement (2.5%) if the LTV ratio exceeds 60%
- Interest-only periods on mortgages and home equity lines of credit may only be granted when LTV is below 60%
- Flexibility quota: Up to 10% of the value of new loans can deviate from one or more of the requirements in each quarter
- For mortgages located in Oslo, the deviation limit is set to 8% of the value of new loans each quarter. In addition, there is an LTV requirement of maximum 60% for secondary homes in Oslo.

As mentioned above, the COVID-19 situation is poised to have a substantial impact on economic activity but so far to a less extent on the housing and mortgage market. Various measures implemented by authorities will dampen the negative effects, for the mortgage market a record low key policy rate of 0%, and hence lower interest rates on mortgages, has reduced borrowing costs. Furthermore, the Ministry of Finance has amended the mortgage regulation so that the flexibility allowance is increased to 20% in the second and third quarter of 2020 (and may be extended). It has also specified that the temporary measures already existing in the regulation implies that banks can allow for postponement of interest and principal payments up to 6 months.

MORTGAGE FUNDING

Norwegian banks and covered bond companies are on aggregate funded by 12% equity, 40% deposits and 48% wholesale funding. The latter consists of approximately 50% covered bonds as well as senior, unsecured bonds and short term-funding. Covered bonds are hence a very important source of funding of residential mortgages. Today there are 24 issuers of covered bonds in Norway. In 2019 a total of approximately EUR 21.3 bn of covered bonds was issued. The total level of outstanding bonds was close to EUR 125 bn. 44% of the outstanding bonds are denominated in NOK, 50% in EUR, and the remaining 6% in other foreign currencies.

According to figures from the FSA the development in bank funding has been quite stable for some time. Since the introduction of covered bonds in 2007 senior, unsecured bonds have gradually been replaced by covered bonds. This has also contributed to longer maturities within wholesale funding.

GREEN FUNDING

The focus on sustainable finance has been prominent for several years. In 2015 the Oslo Stock Exchange ("Oslo Børs") became the first stock exchange in the world to introduce a separate list for green bonds. Since then numerous initiatives in the financial industry have been taken and several green bonds have been issued.

Since the start of 2018 a total of 5 Norwegian issuers have issued green covered bonds based on residential mortgages. Issuances have been in NOK, SEK and EUR with a total outstanding volume of approximately EUR 4 bn. at year-end 2019.

Several banks offer green mortgages to their customers, some even with a discounted interest rate. Green mortgages may be linked to the EPC-system or specific initiatives such as installing solar panels. On the regulatory side Norway will implement all EU-legislation on Taxonomy etc. When it comes to specific Norwegian issues, the government-owned entity Enova has recently put forward a proposal for updating the EPC-system and to make it easier to use.

	NORWAY 2018	NORWAY 2019	EU 27 2019
MACROECONOMIC VARIABLES			
Real GDP growth (%) (1)	1.3	1.2	1.5
Unemployment Rate (LSF), annual average (%) (1)	3.8	3.7	6.7
HICP inflation (%) (1)	3.0	2.3	1.4
HOUSING MARKET			
Owner occupation rate (%) (1)	n/a	n/a	69.9*
Gross Fixed Investment in Housing (annual change)(1)	-6.2	-0.9	3.3
Building Permits (2015=100) (2)	101.9	102.7	122.0
House Price Index – country (2015=100) (2)	114.3	117.2	125.5**
House Price Index – capital (2015=100) (2)	119.9	126.5	129.5**
Nominal house price growth (%) (2)	2.8	2.6	5.9**
MORTGAGE MARKET			
Outstanding Residential Loans (mn EUR) (2)	280,500	298,318	5,904,991
Outstanding Residential Loans per capita over 18 (EUR) (2)	67,321	70,932	16,165
Outstanding Residential Loans to disposable income ratio (%) (2)	160.7	166.7	62.9
Gross residential lending, annual growth (%) (2)	n/a	n/a	9.6
Typical mortgage rate, annual average (%) (2)	2.5	2.8	2.3**

* The aggregate EU figure is from 2018.
** Please note that this value is the simple average of the available values in 2019.

Sources:
(1) Eurostat
(2) European Mortgage Federation - Hypostat 2020, Statistical Tables.

NORWAY FACT TABLE

Entities which can issue mortgage loans:	Banks, credit institutions (such as covered bond companies) and state lending institutions.
The market share of the mortgage issuances:	Not available
Proportion of outstanding mortgage loans of the mortgage issuances:	Banks and (partly or fully owned) covered bond companies have granted almost all mortgage loans. State lending institutions have a marginal share.
Typical LTV ratio on residential mortgage loans:	65 % for new mortgages according to a survey conducted by the FSA.
Any distinction made between residential and non-residential loans:	Not available
Most common mortgage product(s):	Floating rate mortgage
Typical maturity of a mortgage:	The standard maturity for mortgage loans is about 25 years.
Most common way to fund mortgage lending:	Covered bonds and deposits.
Level of costs associated with a house purchase:	Roundtrip transaction cost (registration fee, real estate agent's fee, transfer stamp duty) are between 3.75%-5.6%.
The level (if any) of government subsidies for house purchases:	Vulnerable households may receive loans with a favourable interest rate or direct support from the government bank "Husbanken". The amount under the latter option is calculated based on income and housing expenses.

United Kingdom

By Joseph Thompson, Building Societies Association

IN A NUTSHELL

→ Housing market activity remained muted in 2019 as homebuyers show caution due to Brexit uncertainty and domestic political upheaval.
→ Strong competition between lenders causes mortgage rates to fall.
→ House prices supported by a lack of properties, but demand is weak.
→ Levels of arrears and repossessions reach historic lows supported by low interest rates and a strong labour market.
→ Mortgage interest relief for buy-to-let landlords is cut further.

MACROECONOMIC OVERVIEW

Political and economic uncertainty dominated the UK in 2019, as it did the year before. The inability of parliament to agree on the terms of the UK's exit from the EU weighed on both businesses and consumer confidence. This uncertainty was extended when Prime Minister Theresa May resigned in June, triggering a leadership contest, and a new Prime Minister being elected in July. However, uncertainty persisted throughout the year as the Brexit deadline was extended numerous times until the UK left the EU in January 2020.

This uncertainty weighed heavily on both business and consumer confidence, and stunted GDP growth. Firms postponed investment in both technology and labour, meaning productivity continued to grow at very weak levels.

GDP grew by 1.4% in 2019, slightly up from 1.3% in 2018. Growth was volatile through the year as firms, fearing post Brexit import difficulties, brought forward purchases – boosting demand in certain months. Growth fell to zero in the final quarter.

Conditions in the labour market remained robust. Rather than investing to improve productivity, firms employed additional labour to meet demand. By the end of 2019 the employment rate was estimated at a record high of 76.5%. This supported consumer spending, which was the main driver of growth in the year. As GDP growth slowed in 2019, a small margin of excess supply emerged in the economy. Consumer Prices grew by 1.3% over the year reflecting both weaker domestic inflation and regulatory price caps in the energy market.

The Bank of England Base Rate remained unchanged at 0.75% throughout the year, but given this weakness in the economy, markets were expecting further monetary policy easing in 2020. A rate cut was introduced in March 2020, but this was in direct response to the COVID-19 outbreak.

HOUSING MARKETS

Home ownership peaked in 2004 at 69% before falling to 62% in 2016. Since then it has increased to 64% in 2019. This is a result of more first-time buyers, in 2018 and 2019 they benefitted from a number of government schemes. This includes stamp duty exemptions and the Help to Buy scheme, where the government lends first-time buyers 20% (40% in London) of the cost of new built home. In addition they benefited from favourable labour and mortgage market conditions. Real wages increased, allowing buyers to save more towards their deposit, and mortgage rates have fallen. Even though house prices remained relatively high, the cost of servicing a mortgage relative to wages was at its lowest level since data was collected on the same basis in 2005.

Demand for housing has outstripped supply for many years, and house prices have increased. Consequently, home buyers have needed to find larger deposits to buy a home, which has become the biggest barrier to property purchase over the last decade. Confidence in the housing market fell after the EU referendum in 2016, and house price growth moderated in the years that followed. Although demand fell, the number of properties on the market also fell, maintaining the balance between supply and demand. This has allowed price growth to remain positive. In 2019 house prices increased by 1.1%. However in 2019 prices in London once again grew, in line with the UK average. There was little variation in house price growth in any region across the UK.

To address the disparity between supply and demand, the government has made increasing the housing supply a key policy. In 2019, the number of completions continued to grow, with 179,000 in the year, up 9% on 2018. However, the number of housing starts fell by 10% to 151,000. This was the first decline since 2012. Due to lower house price growth, without a buoyant housing market to sell in to, house builders have reduced their activity.

MORTGAGE MARKETS

There were approximately 1.5 mn mortgage approvals in 2019, similar to the number in 2018. Remortgage market activity was flat after significant growth in previous years. Approvals for house purchase were similarly unchanged. With mortgage interest rates at very low levels, many borrowers have opted to fix their mortgage rates for longer periods. This has reduced the level of turnover in the market. 92% of lending was at fixed rates in 2019, the highest proportion since comparable data were first produced in 2007.

There was strong competition between lenders, which saw mortgage rates fall over the year. Average fixed rates fell below floating rates towards the end of the year also reflecting a decline in forward rates. The average fixed rate fell by 23 basis points from 2.10% to 1.87% over the year. The average floating rate fell to a lesser extent, from 2.01% to 1.95%. In the final quarter of 2019 85.3% of mortgages had interest rates less than 2% over the Bank of England's Bank Rate, the highest share since the third quarter of 2008. This has reduced lenders interest margins and made profitability fall.

The Prudential Regulation Authority has previously put measures in place to ensure firms did not overexpose themselves to higher risk lending. However, with margins squeezed, lenders have been advancing up the risk curve in recent years. The average Loan to Value (LTV) has increased to 72.5% in 2019 from 71.7% in 2018, and is the highest since 2002. The proportion of 'higher risk' lending, defined as an LTV above 90%, and a Loan to Income (LTI) ratio above 3.5 for single borrower, or 2.75 joint borrower, was 4% of lending in the year, up from 2.9% in 2018 and the highest since 2008.

Lending at higher LTV and LTI ratios, together with government initiatives and favourable economic conditions, further expanded the first-time buyer market in 2019. Loans to 353,000 first-time buyers were made, the highest level since 2007, accounting for over half of all properties purchased with a mortgage.

The number of mortgages with more than 1.5% of the loan balance in arrears fell in 2019, to 167,993 at year end. The value of these arrears is equal to 0.89% of outstanding mortgage balances, down from 1.00% at the end of 2018, and the lowest level since the data was collected on the same basis in 2007. There were 8,881 possession in 2019, and although this is up from 7,593 in 2018 it is still historically low.

In 2017 the Government introduced the first phase of restrictions on the amount of mortgage interest tax relief available to buy-to let (BTL) landlords. In 2019, the third phase was introduced, where just 25% of the finance costs are deductible from rental income for tax purposes. From April 2020, this will be zero. This restricted the growth of the market considerably in 2017 and 2018. The rate of decline in the BTL market moderated in 2019 with 69,900 house purchase loans, down a further 3% from 72,200 in 2018.

MORTGAGE FUNDING

Wholesale funding has declined as a proportion of lenders' balance sheet since the financial crisis in 2008/9 when it was over 40%. It has largely been replaced by funding from retail deposits and schemes provided by the Bank of England. However, wholesale funding increased in 2019 as lenders looked to replace the GBP 127 bn (ca EUR 145 bn) of funding received from the Bank of England's 'Term Funding Scheme' which closed in 2018. Furthermore, with low interest rates deposit funding is more expensive relative to market rates. Lenders issued GBP 19 bn (ca EUR 23 bn) of covered bonds in 2019, the highest annual total since 2012 and up over 50% on 2018. However deposits remain the primary funding source. In 2018, firms raised GBP 60 bn (ca EUR 68 bn) from retail markets, up 75% compared to the GBP 35 bn (ca EUR 40 bn) in 2017. There was a further increase in 2019, with GBP 66 bn (ca EUR 75 bn) raised, a 9% increase on 2018.

GREEN FUNDING

There has been a growing focus on green funding, and the financing of improvements in the energy efficiency of buildings in the UK. In 2019 the Coalition for the Energy Efficiency of Buildings (CEEB) was established by the Green Finance institute. The CEEB aims to develop the market for financing net-zero carbon and climate-resilient buildings by accelerating the pace of financial innovation and adoption. The coalition has now launched 21 projects ranging across the private rented sector, social housing and owner occupied houses to increase green finance.

Mortgage lenders are working with the CEEB on a number of these projects, such as the financing of energy efficient buildings. It is estimated that the UK's building stock is responsible for approximately 30% of the country's total greenhouse gas emissions and failure to decarbonise this could make it very difficult to meet current decarbonisation targets. While some lenders do offer green mortgages, this market is in its infancy. A barrier to growth in this market is as a lack of attractive or available finance to retrofit homes. The project launched by the CEEB explores the relationship between energy performance and property valuations, supporting the financial case for retrofitting homes.

The Prudential Regulation Authority has identified potential risks to lenders in the transition to a lower carbon housing stock. Minimum Energy Efficiency Standard came into force in 2018 and landlords cannot grant a tenancy if the property does not meet a certain standard. This could start to have an impact on the performance of lenders' buy-to let portfolios, especially If these standards tighten. If energy efficiency restrictions are extended to the homeowner market it could have wider implications for lenders' mortgage books.

In the context of the Energy Efficient Mortgage Initiative (EEMI) the government of Scotland has taken an active role in the Advisory Council and is aiding in the development of best practices and data gathering.

	UK 2018	UK 2019	EU 27 2019
MACROECONOMIC VARIABLES			
Real GDP growth (%) (1)	1.3	1.4	1.5
Unemployment Rate (LSF), annual average (%) (1)	4.0	3.8	6.7
HICP inflation (%) (1)	2.5	1.8	1.4
HOUSING MARKET			
Owner occupation rate (%) (1)	65.0	n/a	69.9*
Gross Fixed Investment in Housing (annual change)(1)	3.4	0.6	3.3
Building Permits (2015=100) (2)	n/a	n/a	122.0
House Price Index – country (2015=100) (2)	115.4	116.6	125.5**
House Price Index – capital (2015=100) (2)	112.4	110.9	129.5**
Nominal house price growth (%) (2)	3.1	1.1	5.9**
MORTGAGE MARKET			
Outstanding Residential Loans (mn EUR) (2)	1,575,990	1,708,134	5,904,991
Outstanding Residential Loans per capita over 18 (EUR) (2)	30,158	32,502	16,165
Outstanding Residential Loans to disposable income ratio (%) (2)	96.0	100.6	62.9
Gross residential lending, annual growth (%) (2)	3.5	0.6	9.6
Typical mortgage rate, annual average (%) (2)	2.1	2.3	2.3**

* The aggregate EU figure is from 2018.
** Please note that this value is the simple average of the available values in 2019.

Sources:
(1) Eurostat
(2) European Mortgage Federation - Hypostat 2020, 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

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
AUSTRIA	72,061	73,455	80,008	83,960	86,281	87,622	90,710	96,925	101,169	107,354	112,666	119,775
BELGIUM	137,016	151,738	161,723	172,049	183,615	189,484	196,877	207,117	220,114	233,224	246,528	263,419
BULGARIA	3,806	3,798	3,714	3,589	3,573	3,507	3,499	3,522	3,700	4,190	4,715	6,384
CROATIA	7,501	7,663	8,258	8,363	8,293	8,059	7,865	7,734	6,947	7,101	7,293	7,720
CYPRUS	8,501	10,388	11,921	12,545	12,679	11,854	11,655	11,661	11,515	11,123	8,670	8,605
CZECHIA	14,786	20,942	24,128	25,556	27,851	27,222	28,732	32,085	34,940	40,555	43,984	48,658
DENMARK	207,267	216,697	224,036	228,743	230,741	231,850	234,518	238,848	243,751	248,776	251,705	258,799
ESTONIA	6,209	6,111	5,973	5,882	5,846	5,896	6,064	6,323	6,661	7,107	7,603	8,119
FINLAND	67,632	71,860	76,747	81,781	86,346	88,313	89,762	91,955	94,056	96,129	97,781	100,354
FRANCE	700,200	730,500	795,200	843,200	870,040	814,627	833,120	866,401	899,358	954,226	1,009,562	1,078,000
GERMANY	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	1,530,434
GREECE	77,700	80,559	80,507	78,393	74,634	71,055	69,408	67,593	61,397	58,812	56,766	52,707
HUNGARY	22,346	22,463	24,659	21,950	19,985	18,499	17,146	14,943	14,024	13,602	13,604	13,715
IRELAND	148,803	147,947	103,043	100,588	97,462	94,862	90,593	87,898	86,195	84,045	83,301	81,637
ITALY	264,288	280,337	352,111	367,645	365,588	361,390	359,137	362,332	369,520	375,425	379,054	382,583
LATVIA	7,192	6,870	6,559	5,991	5,334	5,062	4,703	4,503	4,412	4,363	4,102	4,177
LITHUANIA	6,055	6,027	5,983	5,866	5,811	5,836	5,996	6,168	6,584	7,173	7,758	8,411
LUXEMBOURG	15,940	17,077	18,591	20,255	21,715	23,389	25,038	26,599	28,314	30,656	33,064	35,633
MALTA	2,220	2,458	2,666	2,893	3,088	3,278	3,592	3,905	4,204	4,548	5,520	6,071
NETHERLANDS	624,813	648,399	668,651	682,116	688,105	678,913	680,529	685,084	695,440	704,792	714,367	722,672
POLAND	46,573	52,545	67,526	71,883	79,434	80,812	82,555	90,901	92,015	93,111	100,579	108,382
PORTUGAL	105,209	110,685	114,515	113,916	110,520	106,585	102,469	98,516	95,377	94,093	93,952	93,846
ROMANIA	5,270	5,733	6,763	7,596	8,767	9,257	10,105	11,522	12,893	14,262	15,820	16,999
SLOVAKIA	8,536	9,469	10,849	12,320	13,701	15,304	17,364	19,714	22,508	25,383	28,271	31,001
SLOVENIA	3,398	3,933	4,844	5,164	5,259	5,307	5,348	5,525	5,717	5,976	6,239	6,587
SPAIN	611,483	611,813	620,433	612,657	594,405	569,692	552,613	526,105	511,253	497,711	494,459	487,561
SWEDEN	206,210	238,424	292,263	308,498	334,922	340,379	339,152	375,277	387,000	401,742	409,173	422,742
EURO AREA 19	4,012,661	4,116,595	4,272,519	4,371,004	4,415,282	4,347,292	4,382,389	4,453,780	4,550,695	4,680,949	4,835,650	5,021,591
EU 27	4,526,420	4,684,860	4,923,864	5,047,181	5,128,848	5,066,877	5,105,960	5,228,613	5,345,964	5,504,289	5,682,523	5,904,991
ICELAND	6,743	7,055	8,977	8,370	8,140	8,937	9,165	9,694	11,851	12,014	12,357	n/a
NORWAY	157,299	187,720	209,586	227,272	260,725	245,449	241,128	242,633	274,257	270,151	280,500	298,318
SWITZERLAND	472,649	494,613	613,474	665,927	702,335	720,066	763,933	870,570	900,941	850,522	915,642	980,950
UNITED KINGDOM	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	1,708,134
AUSTRALIA	250,445	376,520	504,845	562,355	589,559	510,012	538,988	603,151	671,057	681,593	681,764	n/a
BRAZIL	18,393	33,567	59,210	78,394	94,454	103,519	134,023	115,872	155,791	142,240	134,780	141,341
CANADA	519,726	624,427	759,388	814,996	867,566	817,605	896,116	887,681	1,004,421	996,750	991,832	1,123,183
JAPAN	1,484,780	1,398,488	1,710,487	1,866,171	1,656,240	1,316,250	1,320,272	1,481,570	1,606,118	1,499,312	1,662,108	1,767,099
RUSSIA	28,216	25,951	34,655	41,841	57,739	67,238	56,579	56,472	78,530	83,369	88,894	118,728
SINGAPORE	n/a	n/a	n/a	56,695	76,850	83,310	87,728	101,021	104,109	106,172	100,555	102,563
SOUTH KOREA	200,945	241,875	286,354	308,843	346,388	354,001	422,800	498,376	563,851	601,733	632,255	650,224
TURKEY	16,431	19,513	28,429	29,989	36,146	37,048	44,270	45,096	44,167	42,105	31,023	29,784
USA	8,622,907	8,185,478	7,822,706	7,888,477	7,561,392	7,215,575	8,186,393	9,232,847	9,749,644	8,823,063	9,495,022	9,931,992

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), before 1999 aggregate data residential and commercial
- 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
- Czechia
- Netherlands
- Spain
- Canada
- Japan
- Russia

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)
- For Japan, the reference year is the Japanese Fiscal year, from April to March

2. Change in Outstanding Residential Loans

End of period, EUR million

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
AUSTRIA	6,164	1,394	6,553	3,952	2,321	1,341	3,088	6,215	4,244	6,185	5,312	7,109
BELGIUM	10,634	14,722	9,985	10,326	11,566	5,869	7,393	10,240	12,997	13,110	13,304	16,891
BULGARIA	1,011	-8	-85	-125	-16	-66	-8	23	178	491	525	1,669
CROATIA	1,028	162	595	105	-70	-234	-194	-130	-787	153	192	428
CYPRUS	1,566	1,886	1,533	624	134	-825	-199	6	-146	-392	-2,453	-65
CZECHIA	2,246	6,156	3,186	1,428	2,296	-630	1,510	3,353	2,855	5,616	3,428	4,675
DENMARK	11,574	9,430	7,339	4,707	1,998	1,110	2,668	4,331	4,903	5,025	2,929	7,095
ESTONIA	584	-98	-138	-91	-36	51	168	259	338	446	496	516
FINLAND	5,460	4,228	4,887	5,034	4,565	1,967	1,449	2,193	2,101	2,073	1,652	2,573
FRANCE	53,700	30,300	64,700	48,000	26,840	-55,413	18,493	33,281	32,957	54,868	55,336	68,438
GERMANY	-10,338	1,565	5,226	11,588	21,070	23,969	28,588	42,046	47,445	51,909	67,177	84,447
GREECE	8,337	2,859	-52	-2,114	-3,759	-3,579	-1,646	-1,815	-6,196	-2,585	-2,046	-4,059
HUNGARY	4,948	117	2,196	-2,708	-1,965	-1,486	-1,353	-2,203	-919	-423	3	111
IRELAND*	8,241	-856	-44,904	-2,455	-3,126	-2,600	-4,269	-2,695	-1,703	-2,150	-744	-1,664
ITALY	-1,166	16,049	71,775	15,534	-2,057	-4,198	-2,253	3,195	7,188	5,905	3,629	3,529
LATVIA	490	-321	-312	-568	-657	-272	-359	-200	-91	-49	-261	75
LITHUANIA	1,206	-29	-44	-117	-55	25	160	172	416	589	585	653
LUXEMBOURG	1,264	1,137	1,514	1,664	1,460	1,674	1,649	1,561	1,715	2,342	2,408	2,569
MALTA	205	238	208	227	195	190	314	313	299	344	972	551
NETHERLANDS	31,761	23,586	20,252	13,465	5,989	-9,192	1,616	4,555	10,356	9,352	9,575	8,305
POLAND	13,840	5,972	14,981	4,357	7,551	1,378	1,743	8,346	1,114	1,096	7,468	7,803
PORTUGAL	4,115	5,476	3,830	-599	-3,396	-3,935	-4,116	-3,953	-3,139	-1,284	-141	-106
ROMANIA	1,068	463	1,029	833	1,171	490	848	1,417	1,371	1,369	1,558	1,179
SLOVAKIA	1,763	933	1,380	1,471	1,381	1,603	2,060	2,350	2,794	2,875	2,888	2,730
SLOVENIA	728	535	911	320	95	48	41	177	192	259	263	348
SPAIN	30,762	330	8,620	-7,776	-18,252	-24,713	-17,079	-26,508	-14,852	-13,542	-3,252	-6,899
SWEDEN	-11,671	32,214	53,838	16,236	26,424	5,457	-1,227	36,125	11,722	14,743	7,431	13,568
EURO AREA 19	155,474	103,934	155,924	98,485	44,279	-67,990	35,097	71,391	96,914	130,254	154,701	185,941
EU 27	179,520	158,440	239,004	123,317	81,667	-61,971	39,083	122,653	117,351	158,325	178,234	222,469
ICELAND	-4,510	312	1,922	-607	-230	797	228	529	2,157	163	344	n/a
NORWAY	-17,792	30,421	21,866	17,686	33,453	-15,275	-4,322	1,506	31,624	-4,107	10,350	17,817
SWITZERLAND	60,290	21,964	118,861	52,453	36,408	17,731	43,867	106,637	30,371	-50,419	65,121	65,307
UNITED KINGDOM	-331,872	97,630	50,234	46,844	61,450	-17,842	129,031	142,933	-208,884	-6,524	36,011	132,144
AUSTRALIA	-13,839	126,075	128,325	57,510	27,204	-79,547	28,976	64,163	67,906	10,536	171	n/a
BRAZIL	1,604	15,173	25,643	19,184	16,060	9,065	30,503	-18,150	39,918	-13,551	-7,460	6,561
CANADA	-36,122	104,700	134,961	55,608	52,570	-49,960	78,511	-8,435	116,739	-7,670	-4,918	131,351
JAPAN	347,711	-86,292	311,999	155,684	-209,931	-339,990	4,022	161,298	124,547	-106,806	162,796	104,991
RUSSIA	11,231	-2,265	8,704	7,186	15,898	9,499	-10,659	-107	22,058	4,839	5,524	29,834
SINGAPORE	n/a	n/a	n/a	n/a	20,154	6,460	4,418	13,293	3,088	2,063	-5,617	2,008
SOUTH KOREA	-48,557	40,930	44,479	22,489	37,545	7,613	68,799	75,576	65,475	37,882	30,522	17,969
TURKEY	-1,069	3,082	8,916	1,560	6,157	902	7,222	827	-930	-2,062	-11,082	-1,239
USA	508,309	-437,429	-362,772	65,771	-327,085	-345,816	970,818	1,046,453	516,798	-926,581	671,958	436,970

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

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
AUSTRIA	11,130	11,761	12,941	14,501	15,441	15,874	16,877	21,166	20,363	28,130	28,106	30,568
BELGIUM	21,531	22,076	26,768	28,074	25,994	25,077	29,441	36,155	36,554	33,568	34,895	43,805
BULGARIA	1,648	617	669	656	599	635	697	973	1,157	1,620	1,709	1,793
CROATIA	n/a	n/a	n/a	n/a	781	583	595	892	2,606	1,422	1483,9	1856,3
CYPRUS	n/a	2,098	3,017	1,907	1,518	1,399	480	268	543	720	869	874
CZECHIA	4,935	2,689	3,216	4,757	4,566	6,404	6,446	7,984	10,384	11,207	11,871	10,694
DENMARK	31,340	44,593	41,386	24,095	43,199	24,700	35,303	50,700	40,526	40,661	39,100	74,476
ESTONIA	1,433	446	419	490	566	686	819	942	1,038	1,206	1,315	1,399
FINLAND	26,669	19,739	20,972	22,537	21,400	17,514	17,540	33,307	29,511	30,982	33,970	33,705
FRANCE	141,185	119,447	168,801	161,601	119,337	128,960	119,603	151,512	157,169	175,350	171,970	196,655
GERMANY	132,800	131,300	142,700	150,600	162,900	170,100	177,100	208,600	209,400	214,300	227,800	245,000
GREECE	12,435	7,966	6,695	4,772	5,011	3,728	1,584	733	577	601	610	625
HUNGARY	6,240	1,907	1,398	1,294	1,214	623	885	1,343	1,688	2,352	2,875	3,012
IRELAND	23,049	8,076	4,746	2,463	2,636	2,495	3,855	4,848	5,656	7,286	8,722	9,540
ITALY	74,102	64,021	67,800	59,196	32,683	28,904	34,861	66,058	83,468	71,454	67,860	71,507
LATVIA	n/a	n/a	119	160	176	221	247	271	363	419	450	546
LITHUANIA	1,808	1,050	706	876	856	856	876	1,050	1,218	1,338	1459	1,478
LUXEMBOURG	3,979	4,456	5,095	5,065	5,523	4,817	5,694	6,347	7,134	7,250	8,680	9,407
MALTA	205	238	210	227	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
NETHERLANDS	98,062	65,302	65,719	68,942	46,664	36,700	48,550	63,474	80,977	100,972	107,080	122,626
POLAND	n/a	n/a	2,666	n/a	6,646	7,716	8,003	9,850	9,389	10,695	11,810	12,270
PORTUGAL	13,375	9,330	10,107	4,853	1,935	2,049	2,313	4,013	5,790	8,259	9,835	10,619
ROMANIA	7,827	921	1,458	1,472	1,455	1,521	1,542	2,516	2,470	2,656	2,688	2,696
SLOVAKIA	n/a	2,332	3,329	3,922	3,803	4,873	5,560	5,772	7,755	7,277	7,972	8,019
SLOVENIA	672	1,456	1,213	928	705	597	633	886	1,059	1,118	1,068	1,130
SPAIN	87,074	73,155	69,479	37,448	32,279	21,857	26,800	35,721	37,492	38,861	43,056	43,591
SWEDEN	33,776	39,909	45,077	38,887	40,616	46,498	51,168	60,761	59,341	59,871	55,755	55,165
EURO AREA 19	649,304	541,913	600,913	561,655	472,897	461,580	490,769	640,855	685,524	728,371	755,718	831,093
EU 27	735,274	634,885	706,706	639,722	578,501	555,387	597,470	776,143	813,629	859,576	883,008	993,054
ICELAND	n/a	n/a	n/a	n/a	n/a	858	994	1,769	11,562	13,978	16,558	n/a
UNITED KINGDOM	311,202	157,779	155,981	159,303	178,217	209,257	252,301	305,547	300,881	293,154	303,434	305,255
AUSTRALIA	60,743	77,994	78,448	80,097	89,387	91,612	91,813	100,303	102,097	113,447	102,197	93,422
BRAZIL	15,076	17,806	34,901	48,575	47,059	52,100	49,791	34,678	29,718	28,270	27,193	30,653
CANADA	n/a	n/a	n/a	n/a	195,557	182,258	172,343	218,526	228,136	223,819	189,081	216,977
JAPAN	129,575	148,236	169,881	180,636	197,864	159,624	137,448	149,785	204,841	168,978	160,482	178,770
RUSSIA	18,006	3,455	9,439	17,536	25,847	31,980	34,623	17,065	19,873	30,664	40,695	39,310
TURKEY	8,057	9,811	15,939	12,728	12,305	19,893	12,566	15,464	17,078	16,611	6,872	8,808
USA	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	1,574,185

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

1) Time series breaks:
- France (2007)
- The Netherlands (2003: change of source; 2004-2007: change of methodology)
- USA (2006)

2) The series has been revised for at least two years in:
- France
- Greece
- Brazil
- Canada

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 Italy
- For Austria and Turkey the figure includes only new loans
- For Belgium and Slovakia 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 Japanese Fiscal year, from April to March

4. Representative Interest Rates on New Residential Loans

Annual average based on monthly figures, %

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	TYPE
AUSTRIA	5.32	3.71	2.71	2.86	2.71	2.39	2.29	2.02	1.92	1.89	1.84	1.61	1
BELGIUM	5.09	4.25	3.59	3.81	3.63	3.45	3.17	2.49	2.11	2.09	1.91	1.78	1
BULGARIA	8.28	9.04	8.47	7.93	7.59	7.05	6.69	5.89	4.99	4.00	4.64	3.33	1
CROATIA	5.78	6.36	6.32	5.48	5.46	5.07	5.10	5.09	4.76	3.96	3.58	3.05	1
CYPRUS	5.97	6.05	4.73	5.31	5.33	5.03	4.43	3.59	3.06	2.77	2.41	2.10	2
CZECHIA	5.61	5.61	4.90	4.04	3.52	3.26	2.56	2.33	2.07	2.11	2.49	2.62	1
DENMARK	5.77	3.21	2.17	2.41	1.41	1.20	1.29	1.09	1.15	1.00	0.81	0.66	1
ESTONIA	5.82	3.87	3.50	3.42	2.86	2.54	2.43	2.25	2.28	2.34	2.59	2.54	1
FINLAND	5.01	2.45	1.98	2.50	1.97	1.98	1.80	1.35	1.16	0.95	0.86	0.73	1
FRANCE	4.84	4.09	3.42	3.80	3.56	3.01	2.72	2.11	1.61	1.52	1.44	1.26	1
GERMANY	5.22	4.26	3.69	3.84	3.06	2.76	2.49	1.95	1.76	1.83	1.87	1.52	1
GREECE	4.81	3.94	3.68	4.33	3.26	2.82	2.94	2.62	2.74	2.78	3.01	3.11	2
HUNGARY	10.91	11.55	10.88	10.46	10.51	9.85	8.48	6.21	5.32	4.70	4.43	4.86	2
IRELAND	5.17	3.14	3.13	3.46	3.28	3.44	3.42	3.49	3.26	3.19	3.01	2.93	1
ITALY	5.09	2.88	2.97	4.03	3.69	3.50	2.83	2.50	2.02	1.90	1.89	1.44	1
LATVIA	7.02	4.95	4.09	4.12	3.66	3.53	3.44	3.43	3.21	2.82	2.82	2.67	1
LITHUANIA	5.83	4.17	3.70	3.71	2.97	2.39	2.15	1.88	1.95	2.01	2.22	2.37	1
LUXEMBOURG	4.90	2.49	2.16	2.40	2.23	2.13	2.02	1.86	1.68	1.74	1.75	1.39	2
MALTA	3.84	3.51	3.43	3.38	3.40	3.03	2.85	2.99	2.84	2.83	2.71	2.58	1
NETHERLANDS	5.34	4.86	4.52	4.55	4.27	3.78	3.37	2.93	2.59	2.41	2.40	2.27	1
POLAND	8.05	7.23	6.48	6.70	6.95	5.14	4.10	4.40	4.40	4.40	4.40	4.30	1
PORTUGAL	5.42	2.69	2.43	3.74	3.89	3.26	3.21	2.38	1.90	1.59	1.38	1.20	2
ROMANIA	6.67	7.16	5.31	5.84	5.03	4.73	5.06	3.99	3.46	3.70	5.20	5.45	2
SLOVAKIA	6.26	5.87	5.21	4.84	4.69	4.07	3.39	2.72	1.97	1.82	1.54	1.35	1
SLOVENIA	6.73	4.45	3.34	3.77	3.37	3.20	3.21	2.53	2.33	2.50	2.44	2.35	1
SPAIN	5.67	3.25	2.53	3.37	3.30	3.04	2.96	2.24	2.01	1.95	1.97	1.99	2
SWEDEN	5.25	2.06	2.39	3.87	3.48	2.75	2.24	1.66	1.60	1.58	1.50	1.52	2
ICELAND	6.03	5.67	5.14	4.82	4.24	3.92	3.86	3.98	3.87	3.88	3.85	3.60	6
NORWAY	n/a	n/a	n/a	n/a	n/a	3.98	3.78	2.86	2.43	2.50	2.45	2.75	6
SWITZERLAND	3.33	2.79	2.58	2.39	2.18	2.02	1.89	1.77	1.63	1.53	1.45	1.37	6
UNITED KINGDOM	5.75	4.21	3.81	3.62	3.69	3.24	3.12	2.62	2.34	2.03	2.11	2.25	1
AUSTRALIA	8.39	6.59	7.54	7.02	5.99	5.29	5.16	4.68	4.26	4.18	4.12	3.57	2
BRAZIL	n/a	n/a	n/a	10.30	8.50	8.10	9.30	10.10	10.80	9.10	8.00	7.70	6
CANADA	n/a	n/a	n/a	n/a	n/a	3.14	3.05	2.70	2.70	2.91	3.45	3.78	1
JAPAN	2.89	2.74	2.36	2.32	1.95	1.87	1.62	1.52	1.06	1.23	1.36	1.21	6
RUSSIA	12.90	14.30	13.10	11.90	12.29	12.44	12.45	13.35	12.48	10.64	9.56	9.87	1
SOUTH KOREA	7.00	5.54	5.00	4.92	4.63	3.86	3.55	3.03	2.91	3.27	3.39	2.74	6
TURKEY	18.63	15.60	11.05	11.59	12.37	9.69	11.86	12.31	13.25	12.14	19.3	18.0	1
USA	6.04	5.04	4.69	4.46	3.66	3.98	4.17	3.85	3.65	3.99	4.65	4.39	5

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

1) Time series breaks:

- Czech Republic: 2013 (source was changed from 2013 to the Central Bank data)
- Croatia: 2012 (new series from 2012 onwards due to revised methodology)
- Iceland: 2005 (in 2004, the average is based on data between September and December)
- Romania: 2014 (change in the methodology of the NBR to reflect the changes in granting mortgages by currency)
- Slovakia: 2009 (before 2009, the reference currency for the interest rate was SKK)
- Slovenia: 2007 (before 2007, the reference currency for the interest rate was SIT)
- Sweden: 2005 (before 2005, the average was calculated with quarterly data)
- Japan: 2003 (the underlying mortgage products were changed due to a succession in Japan of government agencies dealing with housing finance)

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

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
- For Japan, the reference year is the Japanese Fiscal year, from April to March

5. Amount of gross lending with a variable interest rate

Fixation period of up to 1 year, %

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
AUSTRIA	61.7	69.9	73.7	74.9	78.3	81.4	84.0	76.1	63.6	51.8	43.5	43.7
BELGIUM	2.5	28.3	32.7	9.9	2.2	5.8	4.2	0.6	0.9	1.4	6.7	6.4
BULGARIA	97.7	99.3	97.5	97.2	94.7	96.8	96.1	93.4	97.2	98.7	98.7	99.0
CROATIA	n/a	n/a	n/a	63.3	60.4	70.5	72.2	77.5	50.7	30.7	15.7	13.3
CYPRUS	78.7	78.2	66.0	73.6	80.3	85.7	91.7	95.1	96.1	97.9	94.8	93.2
CZECHIA	43.0	56.0	56.0	56.4	n/a	34.2	37.3	30.6	25.4	20.5	18.9	3.7
DENMARK	n/a	n/a	n/a	n/a	n/a	n/a	23.0	14.1	17.8	19.2	15.5	18.9
ESTONIA	83.3	92.2	63.1	72.6	77.2	86.3	88.2	89.3	89.4	88.9	88.6	89.9
FINLAND	n/a	n/a	n/a	n/a	n/a	95.8	93.7	92.9	92.5	95.2	96.3	98.0
GERMANY	15.1	17.0	16.6	16.9	15.0	16.3	15.8	12.4	12.0	11.4	11.7	11.0
GREECE	29.4	68.5	76.5	79.2	88.6	87.8	90.3	92.4	85.6	82.0	85.7	83.9
HUNGARY	n/a	n/a	83.4	75.6	61.5	44.1	47.1	45.0	41.9	41.0	16.0	3.0
IRELAND	82.3	88.5	70.2	78.4	87.7	83.6	86.6	66.0	65.4	49.5	39.0	27.0
ITALY	n/a	n/a	n/a	n/a	n/a	n/a	77.7	47.9	37.5	33.3	33.3	29.4
LATVIA	61.5	87.6	87.8	90.4	91.7	96.4	96.3	95.3	92.7	93.8	95.7	95.8
LITHUANIA	64.4	85.5	79.2	77.0	78.4	83.6	89.2	88.1	85.8	91.1	97.3	98.4
LUXEMBOURG	100.0	88.0	86.9	85.3	72.4	68.8	74.8	52.1	45.0	42.3	46.9	39.0
MALTA	93.2	94.4	90.8	98.4	89.9	93.4	72.8	72.4	72.2	74.2	62.7	44.4
NETHERLANDS	14.8	24.7	20.8	21.9	23.1	24.3	19.6	14.5	13.7	13.7	16.2	18.7
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	95.7	98.0	99.2	98.9	94.6	91.2	92.3	92.1	66.4	60.3	65.0	71.8
ROMANIA	n/a	n/a	n/a	n/a	n/a	n/a	88.0	85.0	93.0	93.0	75.0	77.0
SLOVAKIA	54.8	48.9	30.3	24.2	17.2	12.8	7.9	6.2	4.0	2.0	1.7	1.7
SLOVENIA	71.7	95.1	96.3	94.9	97.3	98.5	98.0	77.7	59.1	45.6	47.8	52.8
SPAIN	90.9	89.2	86.4	81.8	77.8	67.7	64.5	62.9	46.3	42.4	36.3	35.6
SWEDEN	65.4	87.7	69.8	53.8	56.3	64.3	75.7	73.0	76.0	71.7	69.1	66.9
NORWAY	n/a	n/a	n/a	n/a	n/a	n/a	93.0	90.0	92.0	94.0	94.0	95.0
UNITED KINGDOM	52.4	37.8	56.9	44.1	35.9	19.0	13.2	15.8	16.0	11.5	7.5	7.9
CANADA	n/a	n/a	n/a	n/a	n/a	16.6	26.9	33.7	18.3	18.4	27.6	10.9
JAPAN	36.0	49.0	52.5	54.5	58.0	49.7	52.5	56.5	50.2	50.7	60.5	n/a
SOUTH KOREA	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	61.0	71.1	64.8	53.0

Sources: *European Mortgage Federation National Experts, National Central Banks, Statistical Data Warehouse - ECB, Ministry of Land Infrastructure Transport and Toursim (Japan)*

Note:

- When available this dataset has been constructed on figures provided in the Quarterly Review
- For Japan, the reference year is the Japanese Fiscal year, from April to March

6. Average amount of a Mortgage granted

EUR

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
BELGIUM	n/a	125,302	129,815	132,246	136,062	134,975	138,084	144,159	149,126	154,717	158,649	162,494
CZECHIA	n/a	n/a	n/a	n/a	n/a	41,833	40,703	47,913	59,036	69,054	71,745	n/a
DENMARK	119,073	122,730	126,849	129,030	131,649	130,288	132,820	138,767	142,238	145,861	149,750	157,094
FINLAND	87,391	90,626	93,186	93,990	94,502	94,416	94,171	95,735	97,215	98,735	100,030	n/a
FRANCE	120,515	110,098	127,016	135,352	137,241	142,563	145,313	149,018	153,857	161,350	170,200	n/a
GERMANY	n/a	175,000	n/a	n/a	185,000	n/a	n/a	212,000	n/a	236,000	n/a	277,000
HUNGARY	n/a	n/a	n/a	16,358	15,108	13,945	15,322	17,032	18,944	21,670	n/a	n/a
IRELAND	208,962	176,258	171,561	172,462	166,056	166,450	174,269	180,963	191,719	209,373	216,941	222,965
LATVIA	n/a	n/a	39,041	30,709	25,445	27,438	30,315	31,390	25,206	285,931	37,407	n/a
NETHERLANDS	252,064	246,276	258,257	275,388	233,327	215,890	217,994	245,007	263,542	285,103	307,127	326,361
POLAND	58,421	46,781	51,557	50,445	47,493	47,604	49,364	50,633	50,562	57,369	59,493	64,658
ROMANIA	n/a	39,606	38,954	36,880	29,153	24,209	33,306	34,418	35,632	39,299	41,899	43,472
SLOVAKIA	51,921	53,195	52,401	55,141	53,692	59,267	62,091	59,035	n/a	n/a	n/a	n/a
SPAIN	139,655	117,804	116,934	111,922	103,438	100,011	102,253	106,736	109,785	117,199	124,265	124,992
ICELAND	n/a	n/a	n/a	n/a	n/a	72,842	72,003	52,278	96,354	120,664	121,582	n/a
NORWAY	n/a	n/a	n/a	n/a	131,236	n/a	n/a	116,653	n/a	n/a	123,470	n/a
UNITED KINGDOM	152,012	126,266	139,886	138,268	151,226	150,131	169,328	199,016	183,165	176,805	216,692	225,211
AUSTRALIA	147,680	159,145	210,965	224,878	240,677	220,343	220,594	239,968	244,373	245,927	243,527	n/a
BRAZIL	26,727	28,583	40,662	51,313	51,025	52,260	50,171	38,763	37,930	43,003	37,061	37,240
CANADA	n/a	n/a	n/a	n/a	130,525	126,283	122,825	132,199	133,549	138,835	137,028	145,357
JAPAN	204,723	239,527	269,959	286,139	312,713	244,794	231,274	253,220	290,624	283,245	281,104	312,573
RUSSIA	51,520	26,561	31,315	33,492	37,367	38,761	34,185	24,396	23,201	28,211	27,646	30,969
TURKEY	25,695	20,281	26,643	23,310	23,932	23,782	21,509	22,530	22,476	19,247	13,818	13,121
USA	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	218,251	211,050	229,944

Sources: *European Mortgage Federation National Experts, National Central Banks, Japan Housing Finance Agency*

Notes:

- Please note that the conversion to euros is based on the yearly average bilateral exchange rate (provided by the ECB)
- Please note that due to the conversion to euros, changes observed for countries not belonging to the euro area may be due to exchange rate fluctuations. To obtain values in national currency, please refer to the exchange rates used, on Table 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
- For Japan, the reference year is the Japanese Fiscal year, from April to March

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

- Netherlands
- Spain

7. Total Outstanding Non-Residential Mortgage Loans

Total Amount , End of the Year, EUR million

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
CZECHIA	13,682	12,099	12,356	12,010	12,023	12,035	13,544	14,435	16,446	19,358	19,997	20,142
DENMARK	118,637	127,141	130,405	133,754	138,160	145,158	151,264	143,427	148,532	150,540	153,352	158,447
ESTONIA	4,111	3,937	3,658	3,395	3,371	3,223	3,250	3,339	3,509	3,382	2,393	3,501
FINLAND	11,148	14,027	15,441	16,473	16,854	18,174	19,501	20,713	22,117	24,129	26,493	28,406
GERMANY	254,862	255,721	251,450	259,134	254,014	250,631	247,345	250,310	249,295	261,102	265,796	299,137
GREECE	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
HUNGARY	7,401	7,838	8,380	7,051	6,805	6,112	n/a	n/a	n/a	n/a	n/a	n/a
IRELAND	16,193	15,147	32,734	29,979	29,269	27,710	25,108	22,737	20,493	17,890	14,211	10,966
ITALY	66,240	71,311	74,303	73,234	93,216	87,260	79,915	87,372	81,591	n/a	n/a	n/a
LATVIA	4,600	4,370	3,658	3,144	2,582	2,298	2,034	1,898	2,255	2,025	1,664	n/a
MALTA	1,662	1,766	1,506	1,489	1,447	1,350	1,391	1,228	1,252	1,286	4,797	4,913
NETHERLANDS	23,772	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
POLAND	11,582	12,192	12,125	11,722	13,693	13,116	13,055	13,952	13,616	18,532	16,187	16,230
ROMANIA	17,935	17,742	19,264	20,140	19,966	19,244	17,763	16,887	15,409	14,189	14,459	15,000
SPAIN	414,512	420,669	396,719	339,739	235,151	159,599	134,581	129,690	115,889	185,105	169,822	156,024
ICELAND	23,042	21,925	22,958	13,660	11,430	11,332	11,092	n/a	n/a	n/a	n/a	n/a
NORWAY	n/a	8,654	11,638	12,329	13,954	14,597	14,665	13,978	13,450	14,137	20,270	19,240
AUSTRALIA	219,616	274,616	351,844	375,709	398,830	355,417	422,679	426,910	445,847	n/a	n/a	n/a
BRAZIL	1,112	3,013	3,367	13,329	15,885	16,508	20,555	16,862	20,783	15,034	10,439	7,490
CANADA	199,353	192,645	207,478	220,568	249,441	242,341	280,904	291,451	339,483	345,150	379,414	439,130
JAPAN	n/a	188,721	239,740	259,354	230,744	182,518	183,992	211,584	233,759	218,645	235,407	241,328
RUSSIA	4,841	3,936	4,101	3,534	3,327	3,080	2,573	1,605	1,612	1,091	1,787	300
SINGAPORE	—	—	—	45,963	51,791	52,103	52,817	58,110	59,779	62,087	70,214	71,341
USA	1,950,780	1,827,364	2,527,915	2,544,633	2,496,135	2,445,870	2,916,811	3,478,185	3,846,694	3,594,180	3,980,175	4,317,963

Sources: *European Mortgage Federation National Experts, National Central Banks, Federal Reserve*

1) Time series breaks

- Latvia: 2003 (due to a change in the statistical source)

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

- Estonia
- Czechia
- Spain
- Norway
- USA

3) Notes

- For further details on the methodologies, please see "Annex: Explanatory Note on data"
- n/a : figure not available
- Please note that the conversion to euros is based on the bilateral exchange rate at the end of the period (provided by the ECB and Bloomberg)
- Please note that due to the conversion to euros, changes observed for countries not belonging to the euro area may be due to exchange rate fluctuations. To obtain values in national currency, please refer to the exchange rates used, on Table 30 of this publication.
- For Japan, the reference year is the Japanses Fiscal year, from April to March

8. Total Outstanding Residential Loans to GDP Ratio

%

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
AUSTRIA	24.5	25.5	27.0	27.1	27.1	27.1	27.2	28.2	28.3	29.0	29.2	30.0
BELGIUM	39.0	43.8	44.5	45.8	47.5	48.2	48.9	49.7	51.2	52.3	53.6	55.7
BULGARIA	10.2	10.2	9.8	8.7	8.5	8.4	8.2	7.7	7.6	8.0	8.4	10.5
CROATIA	15.6	17.0	18.3	18.7	18.9	18.4	18.1	17.3	14.9	14.5	14.1	14.3
CYPRUS	44.7	55.6	61.4	63.3	65.2	65.9	67.0	65.4	61.0	55.5	41.0	39.2
CZECHIA	9.2	14.1	15.4	15.6	17.3	17.3	18.3	19.0	19.8	21.2	21.2	22.1
DENMARK	85.8	93.7	92.1	92.3	90.6	89.6	88.2	87.5	86.1	85.1	83.5	83.2
ESTONIA	37.3	43.0	40.2	35.0	32.4	31.0	30.1	30.4	30.7	29.9	29.2	29.0
FINLAND	34.8	39.5	40.8	41.3	43.0	43.2	43.4	43.5	43.2	42.6	41.9	41.8
FRANCE	35.1	37.7	39.9	41.0	41.7	38.5	38.8	39.4	40.3	41.5	42.8	44.4
GERMANY	45.0	46.9	44.9	43.2	43.2	43.0	42.3	42.2	42.3	42.5	43.2	44.6
GREECE	32.1	33.9	35.6	37.9	39.0	39.3	38.9	38.1	34.8	32.6	30.7	28.1
HUNGARY	20.6	23.8	24.9	21.6	20.0	18.1	16.2	13.3	12.2	10.8	10.2	9.5
IRELAND	79.2	87.0	61.4	58.9	55.7	52.8	46.5	33.4	31.7	28.3	25.7	23.5
ITALY	23.8	26.2	32.8	34.6	35.5	35.4	34.8	33.6	33.2	32.3	31.5	30.7
LATVIA	29.5	36.5	36.8	29.6	24.1	22.2	19.9	18.4	17.6	16.3	14.1	13.7
LITHUANIA	18.5	22.4	21.4	18.8	17.4	16.7	16.4	16.5	16.9	17.0	17.1	17.4
LUXEMBOURG	41.8	46.2	46.3	46.9	49.2	50.3	50.3	51.1	51.6	54.0	55.1	56.1
MALTA	36.2	40.0	40.4	42.3	43.1	42.8	42.1	40.4	40.5	40.2	44.5	45.7
NETHERLANDS	96.5	103.8	104.6	104.9	105.4	102.8	101.3	99.3	98.2	95.5	92.3	89.0
POLAND	12.7	16.6	18.7	18.9	20.4	20.5	20.1	21.1	21.6	19.9	20.2	20.5
PORTUGAL	58.7	63.1	63.8	64.7	65.7	62.5	59.2	54.8	51.1	48.0	46.0	44.2
ROMANIA	3.6	4.6	5.4	5.8	6.6	6.4	6.7	7.2	7.6	7.6	7.7	7.6
SLOVAKIA	12.9	14.8	15.9	17.3	18.6	20.6	22.8	24.7	27.8	30.0	31.6	32.9
SLOVENIA	9.0	10.8	13.3	13.9	14.5	14.6	14.2	14.2	14.2	13.9	13.6	13.7
SPAIN	55.1	57.2	57.8	57.6	57.6	55.8	53.5	48.8	45.9	42.8	41.1	39.2
SWEDEN	58.1	75.8	78.0	74.7	77.9	77.0	77.3	82.4	83.0	83.7	86.9	89.2
EURO AREA 19	44.1	47.0	47.5	47.4	47.8	46.5	45.8	44.8	44.5	44.0	43.9	44.2
EU 27	42.9	46.5	47.2	47.0	47.5	46.4	45.6	44.9	44.7	44.1	44.0	44.1
ICELAND	61.6	74.8	86.9	76.9	71.0	74.1	68.4	61.8	63.6	55.3	56.7	n/a
NORWAY	49.6	67.5	64.7	63.4	65.8	62.4	64.1	69.8	82.2	76.5	76.2	82.8
SWITZERLAND	117.8	125.4	127.4	139.3	132.5	135.1	138.9	143.1	142.1	148.6	141.3	153.4
UNITED KINGDOM	62.4	77.3	74.6	75.3	71.1	70.7	69.8	66.5	63.5	65.2	65.0	67.7
AUSTRALIA	34.9	56.6	58.4	56.0	49.0	43.0	48.8	49.5	61.4	57.9	56.2	n/a
BRAZIL	1.6	2.8	3.6	4.2	4.9	5.6	7.2	7.1	9.6	7.8	8.4	8.6
CANADA	49.3	63.5	62.4	63.4	61.0	58.8	66.0	63.3	72.7	68.2	68.3	72.4
JAPAN	43.3	37.3	39.8	42.2	34.3	33.9	36.2	37.4	36.1	34.8	39.6	38.9
RUSSIA	2.5	3.0	3.0	2.8	3.4	3.9	3.7	4.6	6.8	6.0	6.3	7.8
TURKEY	n/a	n/a	n/a	28.3	33.5	36.0	37.0	36.4	36.2	35.1	31.8	30.9
SINGAPORE	28.2	35.7	33.2	34.3	34.8	34.3	37.8	37.7	41.6	41.9	43.4	44.3
SOUTH KOREA	3.2	4.2	4.9	5.0	5.3	5.2	6.3	5.8	5.7	5.6	4.7	4.4
USA	86.2	79.0	69.2	70.6	60.0	57.1	62.1	56.2	57.7	51.2	54.6	52.0

Sources: *European Mortgage Federation National Experts, European Central Bank, National Central Banks, Eurostat, Bureau of Economic Analysis, Federal Reserve*

1) Time series breaks:
- See Table 1 and Table 27

2) The series has been revised for at least two years in:
- See Table 1 and Table 27

3) Notes:
- See Table 1 and Table 27

9. Total Outstanding Residential Loans to Disposable Income of Households Ratio

%

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
AUSTRIA	39.5	40.2	43.4	44.3	43.8	44.4	38.5	42.5	45.9	50.2	54.8	59.0
BELGIUM	63.6	70.3	74.0	76.4	79.3	80.7	82.9	85.9	88.5	90.4	92.8	95.6
BULGARIA	17.1	16.7	16.1	14.6	14.5	13.9	14.0	12.8	12.9	13.6	15.1	19.6
CROATIA	25.7	26.3	28.0	28.2	28.2	28.2	27.5	20.1	18.0	n/a	n/a	n/a
CYPRUS	64.3	80.5	89.3	91.9	95.6	94.2	98.9	98.7	92.2	83.8	62.7	60.1
CZECHIA	17.3	25.3	27.6	28.4	31.4	31.6	34.2	36.3	37.7	40.9	40.3	42.1
DENMARK	192.0	196.2	191.8	189.4	186.9	184.6	184.2	180.0	175.5	173.4	170.3	173.3
ESTONIA	65.4	71.3	70.0	63.3	61.0	56.8	55.4	55.1	55.2	55.1	53.6	53.6
FINLAND	65.7	68.0	69.8	71.5	73.4	73.1	73.6	74.1	74.4	74.5	73.2	72.9
FRANCE	55.1	57.4	60.7	63.2	64.5	60.6	61.2	62.9	64.1	66.5	68.6	70.7
GERMANY	70.3	70.8	69.5	67.8	67.4	67.6	67.5	67.9	68.2	68.7	69.5	71.3
GREECE	45.7	46.5	50.4	53.7	55.9	58.2	57.3	57.8	53.7	50.9	47.8	43.1
HUNGARY	36.5	40.9	43.4	36.4	33.5	30.7	28.4	24.0	21.6	19.5	18.5	17.2
IRELAND	150.8	161.0	116.2	118.9	111.7	108.6	101.9	94.6	87.9	80.5	76.0	69.8
ITALY	23.5	25.5	32.1	32.7	33.4	32.9	32.4	32.3	32.6	32.4	32.2	32.1
LATVIA	45.9	53.8	55.7	50.9	42.0	38.2	34.0	30.9	28.7	26.8	23.1	21.5
LITHUANIA	29.0	31.4	30.8	28.8	27.3	26.3	26.6	26.6	26.4	27.6	28.4	28.5
LUXEMBOURG	104.4	108.5	113.8	121.1	122.7	127.8	129.0	135.2	140.7	142.5	145.8	154.0
NETHERLANDS	198.6	206.3	209.6	209.2	209.3	204.4	200.0	197.7	195.0	192.9	187.5	183.0
POLAND	20.6	26.3	29.8	31.1	33.4	33.5	33.2	35.6	35.7	33.5	34.6	35.3
PORTUGAL	82.7	86.5	88.1	89.5	89.3	86.8	83.7	77.8	72.6	69.4	66.4	64.2
ROMANIA	6.3	8.2	8.9	9.9	11.8	11.5	12.3	13.1	13.4	13.2	13.0	12.9
SLOVAKIA	22.1	23.4	26.1	29.3	31.5	35.0	38.9	42.3	46.7	50.1	52.1	54.9
SLOVENIA	15.0	17.3	21.1	22.1	23.0	23.2	23.1	23.5	23.3	23.2	22.9	22.7
SPAIN	88.4	89.0	89.9	88.2	90.3	86.9	84.2	77.1	73.0	69.0	66.1	62.7
SWEDEN	121.8	150.1	158.2	150.7	151.6	149.3	151.5	166.3	166.1	168.7	174.2	177.8
EURO AREA 19	65.7	67.7	69.6	69.9	70.4	69.0	68.5	68.4	68.4	68.6	70.8	73.6
EU 27	55.0	58.3	59.9	60.2	59.8	58.6	57.7	56.3	57.5	58.6	60.5	62.9
NORWAY	125.4	150.4	147.4	147.7	154.0	142.8	142.5	142.5	164.7	157.3	160.7	166.7
SWITZERLAND	205.9	201.7	225.7	214.4	216.4	221.1	227.8	227.5	237.3	226.9	248.0	250.5
UNITED KINGDOM	94.3	111.1	108.8	111.6	104.2	104.0	103.5	96.3	94.2	97.6	96.0	100.6
USA	113.3	102.2	89.5	90.3	75.9	74.6	80.2	72.5	74.2	65.5	69.5	65.9

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

1) Time series breaks:
- See Table 1 and Table 28

2) The series has been revised for at least two years in:
- See Table 1 and Table 28

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

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
AUSTRIA	10,707	10,845	11,749	12,255	12,506	12,602	12,930	13,664	14,075	14,812	15,458	16,356
BELGIUM	16,172	17,752	18,749	19,648	20,818	21,362	22,109	23,134	24,422	25,779	27,123	28,814
BULGARIA	607	608	597	581	581	574	577	585	620	709	805	1,099
CROATIA	2,146	2,190	2,361	2,397	2,381	2,318	2,266	2,234	2,017	2,075	2,152	2,290
CYPRUS	14,205	16,781	18,604	18,954	18,518	17,158	16,962	17,205	16,949	16,196	12,463	12,177
CZECHIA	1,741	2,442	2,800	2,958	3,213	3,137	3,317	3,703	4,036	4,684	5,078	5,609
DENMARK	48,651	50,462	51,869	52,589	52,702	52,546	52,703	53,198	53,692	54,311	54,532	55,707
ESTONIA	5,710	5,614	5,490	5,418	5,406	5,477	5,656	5,909	6,231	6,668	7,125	7,585
FINLAND	16,086	16,969	18,003	19,059	19,990	20,311	20,519	20,917	21,307	21,693	21,989	22,502
FRANCE	14,083	14,602	15,812	16,677	17,132	15,966	16,202	16,766	17,343	18,328	19,323	20,547
GERMANY	16,783	16,788	16,865	17,379	17,636	17,926	18,280	18,792	19,272	19,968	20,879	22,045
GREECE	8,559	8,833	8,796	8,553	8,173	7,840	7,710	7,545	6,893	6,616	6,400	5,947
HUNGARY	2,737	2,747	3,012	2,681	2,453	2,269	2,106	1,837	1,728	1,683	1,687	1,701
IRELAND	44,098	43,317	30,081	29,324	28,380	27,542	26,156	25,146	24,354	23,409	22,919	22,045
ITALY	5,433	5,727	7,168	7,454	7,401	7,277	7,094	7,147	7,294	7,408	7,480	7,549
LATVIA	4,014	3,872	3,758	3,494	3,150	3,019	2,841	2,750	2,729	2,738	2,603	2,676
LITHUANIA	2,359	2,355	2,356	2,368	2,375	2,404	2,487	2,573	2,778	3,069	3,364	3,666
LUXEMBOURG	42,102	44,094	47,089	50,225	52,227	54,839	57,208	59,127	61,324	64,541	68,145	71,839
MALTA	6,820	7,445	7,964	8,578	9,061	9,468	10,174	10,768	11,280	11,910	13,920	14,687
NETHERLANDS	48,588	50,040	51,196	51,857	51,958	50,984	50,837	50,854	51,277	51,530	51,785	51,900
POLAND	1,521	1,707	2,195	2,328	2,564	2,602	2,656	2,921	2,957	2,991	3,234	3,487
PORTUGAL	12,289	12,892	13,292	13,180	12,791	12,382	11,951	11,523	11,169	11,032	11,007	10,980
ROMANIA	320	347	412	465	539	570	624	714	804	895	998	1,079
SLOVAKIA	1,988	2,192	2,498	2,824	3,124	3,477	3,937	4,460	5,085	5,726	6,373	6,985
SLOVENIA	2,041	2,333	2,851	3,039	3,089	3,117	3,140	3,244	3,359	3,512	3,669	3,847
SPAIN	16,249	16,078	16,232	15,973	15,455	14,853	14,480	13,808	13,421	13,039	12,908	12,631
SWEDEN	28,438	32,520	39,391	41,152	44,281	44,624	44,089	48,348	49,451	50,733	51,155	52,353
EURO AREA 19	14,849	15,149	15,668	16,056	16,169	15,876	15,915	16,125	16,410	16,835	17,344	17,946
EU 27	12,741	13,116	13,749	14,106	14,299	14,091	14,139	14,444	14,726	15,135	15,597	16,165
ICELAND	28,662	29,572	37,886	35,162	33,956	36,915	37,310	38,917	46,845	46,463	46,097	n/a
NORWAY	43,239	50,793	55,904	59,715	67,412	62,481	60,540	60,047	67,159	65,455	67,321	70,932
SWITZERLAND	76,936	79,129	96,812	103,789	108,093	109,474	114,579	128,865	131,847	123,092	131,498	139,850
UNITED KINGDOM	25,794	27,569	28,347	29,025	30,019	29,467	31,800	34,336	29,998	29,659	30,158	32,502
AUSTRALIA	15,391	22,605	29,764	32,693	33,637	28,549	29,677	32,704	35,831	35,816	35,320	n/a
BRAZIL	139	250	433	563	668	720	918	781	1,035	931	870	900
CANADA	19,767	23,395	28,034	29,747	31,247	29,058	31,450	30,861	34,453	33,734	33,060	36,863
JAPAN	13,871	13,048	15,935	17,407	15,462	12,295	12,336	13,839	15,001	14,004	15,530	16,518
RUSSIA	243	223	297	358	495	577	486	487	680	725	777	1,042
TURKEY	n/a	n/a	n/a	1,133	1,505	1,598	1,648	1,858	1,874	1,871	1,735	1,736
SINGAPORE	51,800	60,047	69,210	72,638	79,042	79,138	92,944	107,816	119,474	126,797	132,224	134,128
SOUTH KOREA	427	501	721	749	891	902	1,064	1,070	1,038	981	715	682
USA	37,755	35,436	33,494	33,427	31,691	29,923	33,584	37,480	39,182	35,149	37,544	38,995

Sources: *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 and Table 29

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

3) Notes:
- See Table 1 and Table 29
- 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

%

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
AUSTRIA	57.9	57.6	57.4	52.4	57.5	57.3	57.2	55.7	55.0	55.0	55.4	55.2
BELGIUM	73.1	72.7	71.6	71.8	72.4	72.3	72.0	71.4	70.9	72.4	72.3	n/a
BULGARIA	87.1	86.8	86.9	87.2	87.4	85.7	84.3	82.3	82.3	82.9	83.6	84.1
CROATIA	n/a	n/a	88.2	90.1	89.6	88.5	89.7	90.3	90.0	90.5	90.1	n/a
CYPRUS	72.3	74.1	73.1	73.5	73.2	74.0	72.9	73	72.5	70.7	70.1	n/a
CZECHIA	75.8	76.6	78.7	80.1	80.4	80.1	78.9	78	78.2	78.5	78.7	78.6
DENMARK	66.5	66.3	66.6	68.7	66.0	64.5	63.3	62.7	61.7	62.2	60.5	60.8
ESTONIA	88.9	87.1	85.5	83.5	82.2	81.1	81.5	81.5	81.4	81.8	82.4	n/a
FINLAND	73.2	74.1	74.3	74.1	73.9	73.6	73.2	72.7	71.6	71.4	71.6	71.1
FRANCE	62.1	63.0	62.0	63.1	63.7	64.3	65	64.1	64.9	64.4	65.1	n/a
GERMANY	n/a	n/a	53.2	53.4	53.3	52.6	52.5	51.9	51.7	51.4	51.5	n/a
GREECE	76.7	76.4	77.2	75.9	75.9	75.8	74.0	75.1	73.9	73.3	73.5	75.4
HUNGARY	89.0	89.8	89.7	89.3	89.8	88.7	88.2	86.3	86.3	85.2	86	91.7
IRELAND	77.3	73.7	73.3	70.2	69.6	69.9	68.6	70	69.8	69.5	70.3	n/a
ITALY	72.8	72.8	72.6	73.2	74.2	73.3	73.1	72.9	72.3	72.4	72.4	n/a
LATVIA	86.0	87.2	84.3	82.8	81.5	81.2	80.9	80.2	80.9	81.5	81.6	80.2
LITHUANIA	92.2	91.5	93.6	92.2	91.9	92.2	89.9	89.4	90.3	89.7	89.9	n/a
LUXEMBOURG	73.8	70.4	68.1	68.2	70.8	73.0	72.5	73.2	73.9	74.7	71.2	n/a
MALTA	79.9	78.5	79.5	80.2	81.8	80.3	80	80.8	81.4	81.3	81.6	79.8
NETHERLANDS	67.5	68.4	67.2	67.1	67.5	67.1	67	67.8	69.0	69.4	68.9	n/a
POLAND	66.0	68.7	81.3	82.1	82.4	83.8	83.5	83.7	83.4	84.2	84	84.2
PORTUGAL	74.5	74.6	74.9	75.0	74.5	74.2	74.9	74.8	75.2	74.7	74.5	n/a
ROMANIA	96.5	96.5	97.5	96.6	96.6	95.6	96.2	96.4	96.0	96.8	96.4	95.8
SLOVAKIA	89.3	89.5	90.0	90.2	90.4	90.5	90.3	89.3	89.5	90.1	91.3	n/a
SLOVENIA	81.3	81.3	78.1	77.5	76.2	76.6	76.7	76.2	75.1	75.6	75.1	74.8
SPAIN	80.2	79.6	79.8	79.7	78.9	77.7	78.8	78.2	77.8	77.1	76.3	n/a
SWEDEN	68.8	69.7	70.8	69.7	70.1	69.6	69.3	66.2	65.2	65.2	64.1	63.6
EURO AREA 19	71.5	71.9	66.8	66.9	67.2	66.9	66.9	66.4	66.3	66.1	66.2	n/a
EU 27	n/a	n/a	70.7	70.8	71.0	70.7	70.7	70.2	70.1	70	69.9	n/a
ICELAND	85.8	84.2	81.3	77.9	77.3	77.5	78.2	77.8	78.7	74.1	n/a	n/a
NORWAY	86.1	85.4	82.9	84.0	84.8	83.5	84.4	82.8	82.9	81.5	81.3	n/a
SWITZERLAND	—	—	44.4	43.8	43.8	44.0	44.5	43.4	42.5	41.3	42.5	n/a
UNITED KINGDOM	72.5	69.9	70.0	67.9	66.7	64.6	64.4	63.5	63.4	65.0	65.2	n/a
AUSTRALIA	—	69.3	68.3	68.8	67.5	67.2	67.2	67.5	67.5	66.2	66.2	n/a
TURKEY	60.9	60.8	n/a	59.6	60.7	60.7	61.1	60.4	59.7	59.1	59.0	n/a
USA	67.8	67.4	66.9	66.2	65.5	65.1	64.5	63.7	63.4	63.9	64.4	64.6

Sources: *Eurostat, Federal Reserve*

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

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 2019 owner occupation rates were not yet available.

12. Building Permits

Number issued

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
AUSTRIA	38,500	38,300	39,422	46,774	41,694	47,484	49,742	51,890	60,004	67,475	56,157	63,203
BELGIUM	52,651	45,456	49,872	44,352	46,811	49,141	54,903	46,181	50,977	50,388	62,667	56,037
BULGARIA	49,407	20,166	12,832	10,973	10,616	12,278	15,848	17,264	18,157	5,562	5,956	5,980
CROATIA	24,585	17,018	13,378	13,470	9,742	7,744	7,743	6,950	9,398	12,509	11,719	15,370
CYPRUS	8,896	8,950	8,777	7,506	7,172	5,341	4,933	5,014	5,354	5,728	6,408	7,218
CZECHIA	47,389	41,954	39,158	39,656	34,006	29,475	28,127	28,886	31,002	32,069	30,702	31,606
DENMARK	16,116	9,878	17,087	18,931	13,877	12,363	17,336	24,228	32,297	30,013	35,809	29,936
ESTONIA	5,468	2,081	2,581	2,830	3,035	3,049	3,941	5,588	6,021	7,877	6,990	8,025
FINLAND	25,721	26,697	32,836	34,567	31,825	26,680	29,370	32,014	40,208	48,353	41,137	37,754
FRANCE	476,200	380,200	476,500	517,800	480,800	422,000	380,500	405,100	463,500	489,300	455,300	447,000
GERMANY	174,595	177,939	187,667	228,311	241,090	272,433	285,079	313,296	375,388	347,882	346,810	360,493
GREECE	34,021	27,447	23,380	15,114	9,066	5,675	4,620	4,618	4,305	4,930	5,685	6,044
HUNGARY	43,862	28,400	17,353	12,488	10,600	7,536	9,633	12,515	31,559	37,997	36,719	35,123
IRELAND	75,042	43,752	20,022	12,522	6,741	7,199	7,411	13,044	16,375	20,776	29,102	40,252
ITALY	191,783	141,587	119,409	112,391	82,058	53,408	46,796	42,920	44,848	51,859	54,664	40,086
LATVIA	3,749	2,244	1,844	2,022	2,262	2,369	2,295	2,193	1,998	2,766	2,750	2,973
LITHUANIA	8,189	5,994	5,876	4,951	5,768	7,118	6,868	6,993	8,374	7,663	7,988	7,755
LUXEMBOURG	4,017	3,693	3,892	4,323	4,305	3,761	6,360	4,558	4,846	5,048	5,468	5,583
MALTA	6,836	5,298	4,444	3,955	3,064	2,705	2,937	3,947	7,508	9,822	12,885	12,485
NETHERLANDS	87,198	72,646	61,028	55,804	39,354	27,233	41,320	55,599	53,567	69,741	70,034	57,135
POLAND	99,794	90,632	87,593	85,270	75,923	67,175	65,449	72,293	80,796	89,888	95,463	101,595
PORTUGAL	45,981	27,298	25,002	17,481	11,430	7,416	6,858	8,169	8,219	14,044	20,046	23,835
ROMANIA	61,092	48,833	42,189	39,424	37,852	37,776	37,672	39,112	38,653	41,603	42,694	42,541
SLOVAKIA	25,956	18,155	14,466	11,641	11,614	13,180	14,310	17,642	20,224	18,472	20,574	20,385
SLOVENIA	8,000	5,209	4,225	3,285	2,700	2,675	2,197	2,179	2,521	2,649	2,804	4,327
SPAIN	264,795	111,140	91,662	78,286	44,162	34,288	34,873	49,695	64,038	80,786	100,733	106,266
SWEDEN	24,937	21,603	28,795	29,513	26,008	34,472	43,139	57,018	66,318	72,654	62,609	52,275
NORWAY	25,917	19,576	21,278	27,735	30,142	30,252	27,130	30,927	36,530	35,294	31,527	31,774
AUSTRALIA	150,002	149,995	181,960	153,755	156,634	181,248	208,556	239,735	234,860	225,014	211,262	174,578
SINGAPORE	18,998	9,811	14,502	20,551	18,441	18,034	8,454	5,438	7,452	5,103	20,227	16,282
SOUTH KOREA	371,285	381,787	386,542	549,594	586,884	440,116	515,251	765,328	726,048	653,441	554,136	487,975
TURKEY	503,565	518,475	907,451	650,127	771,878	839,630	1,031,754	897,230	1,006,650	1,405,447	664,686	313,173
USA	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	1,386,000

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:
- Belgium
- Denmark
- Italy
- Lithuania
- Spain
- Australia
- Sweden
- Turkey
- Singapore

13. Housing Starts

Number of projects started per year

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
BELGIUM	50,380	44,929	47,569	41,574	44,818	44,696	52,826	43,520	n/a	n/a	n/a	n/a
BULGARIA	—	—	8,009	7,096	6,789	7,669	8,355	12,308	12,495	3,681	3,824	n/a
CZECHIA	43,531	37,319	28,135	27,535	23,853	22,108	24,351	26,378	27,224	31,521	33,121	38,677
DENMARK	16,988	11,112	15,987	18,733	15,295	11,528	17,163	20,591	29,302	28,322	29,688	27,099
ESTONIA	n/a	n/a	n/a	1,150	1,577	2,343	3,841	3,882	2,706	3,611	n/a	n/a
FINLAND	23,360	23,467	33,641	33,014	30,040	27,841	25,109	31,893	36,490	44,251	45,676	39,110
FRANCE	399,100	346,100	413,800	431,100	382,800	357,800	337,800	346,300	382,700	436,800	418,700	411,700
GREECE	79,601	61,490	52,344	29,974	18,817	11,748	9,619	9,264	9,286	10,336	13,337	17,432
HUNGARY	22,314	8,985	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
IRELAND	22,852	8,599	6,391	4,365	4,042	4,708	7,717	8,747	13,234	17,572	22,467	26,237
ITALY	219,143	163,427	131,184	123,499	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
MALTA	n/a	n/a	n/a	3,955	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
POLAND	174,686	142,901	158,064	162,200	141,798	127,392	148,122	168,403	173,932	205,990	221,907	237,281
ROMANIA	143,139	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
SLOVAKIA	28,321	20,325	16,211	12,740	13,090	14,758	15,836	19,640	21,441	19,930	22,055	21,516
SLOVENIA	7,447	6,019	4,831	3,844	3,066	3,142	2,762	2,749	2,975	3,231	3,765	3,438
SPAIN	264,795	111,140	91,662	78,286	44,162	34,288	34,873	49,695	64,038	80,786	100,733	106,266
SWEDEN	21,204	17,952	27,552	26,696	21,315	30,479	36,830	48,115	61,188	63,817	52,654	48,820
ICELAND	3,172	192	321	142	466	769	582	1,612	1,133	2,836	2,525	n/a
NORWAY	25,083	19,021	22,226	28,225	29,202	27,634	25,404	30,150	31,278	30,719	29,496	25,037
UNITED KINGDOM	106,890	85,600	110,660	113,260	101,020	124,790	140,760	148,150	155,150	164,160	167,820	151,020
AUSTRALIA	145,129	135,827	158,229	150,018	151,355	168,388	201,017	223,663	231,072	213,834	222,099	172,109
BRAZIL	170,914	181,095	349,195	418,125	394,392	363,989	320,353	281,773	225,883	236,324	308,967	385,348
CANADA	211,056	149,081	189,930	193,950	214,827	187,923	189,329	195,535	197,916	219,763	212,843	208,685
JAPAN	1,039,214	775,277	819,020	841,246	893,002	987,254	880,470	920,537	974,137	946,396	952,936	883,687
SINGAPORE	14,239	8,603	17,864	20,736	21,395	20,357	11,571	8,082	6,918	5,397	13,121	19,467
SOUTH KOREA	—	—	—	424,269	480,995	425,944	507,666	716,759	657,956	544,274	470,706	478,949
USA	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	1,290,000

Sources: *European Mortgage Federation National Experts, European Central Bank, National Central Banks, National Statistics Offices, Eurostat, US Bureau of Census, Ministry of Land Infrastructure Transport and Tourism (Japan)*

1) Time series breaks
- Denmark: 2012 (source was changed from 2012 onwards)

2) The series has been revised for at least two years in:
- Denmark
- United Kingdom
- Brazil

3) Notes
- For further details on the methodologies, please see "Annex: Explanatory Note on data"
- n/a : figure not available
- For Japan, the reference year is the Japanese Fiscal year, from April to March

14. Housing Completions

Number of projects completed per year

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
AUSTRIA	53,233	36,833	32,808	36,429	37,832	40,441	42,543	41,672	43,874	48,658	n/a	n/a
BULGARIA	20,924	22,058	15,771	13,953	9,970	9,250	9,993	7,806	9,342	2,205	2,324	3,052
CROATIA	25,368	18,740	14,972	12,390	11,792	10,090	7,805	8,059	7,809	8,496	10,141	n/a
CYPRUS	18,195	16,644	13,434	9,091	6,565	3,833	2,718	2,390	2,570	2,993	3,866	n/a
CZECHIA	38,380	38,473	36,442	28,630	29,467	25,238	23,954	25,095	27,322	28,575	33,868	36,406
DENMARK	26,778	19,032	12,354	13,439	17,648	16,664	15,730	15,010	21,023	25,409	28,507	32,924
ESTONIA	5,300	3,026	2,324	1,918	1,990	2,079	2,756	3,969	4,732	5,890	6,472	7,014
FINLAND	30,340	21,362	24,408	32,571	32,597	29,071	28,907	27,448	29,593	34,934	42,010	42,892
FRANCE	470,976	395,103	347,166	381,620	399,056	404,355	413,627	399,564	n/a	n/a	n/a	n/a
GERMANY	175,927	158,987	159,832	183,110	200,466	214,817	245,325	247,722	277,691	284,816	287,352	293,002
GREECE	104,621	51,955	54,545	53,099	32,999	19,773	11,680	7,739	6,425	6,342	6,855	8,217
HUNGARY	36,075	31,994	20,823	12,655	10,560	7,293	8,382	7,612	10,032	14,389	17,681	21,127
IRELAND	51,324	26,420	14,602	6,994	4,911	4,575	5,518	7,219	9,909	14,358	17,946	21,138
ITALY	219,143	163,427	131,184	123,499	133,900	118,600	103,600	86,200	81,600	n/a	n/a	n/a
LATVIA	8,084	4,187	1,918	2,662	2,087	2,201	2,630	2,240	2,197	2,271	2,966	3,315
LITHUANIA	11,829	9,400	3,667	3,733	3,198	3,467	4,456	5,707	7,051	6,420	6,410	6,514
LUXEMBOURG	4,444	3,740	2,824	2,162	2,304	2,642	3,357	3,091	3,856	n/a	n/a	n/a
NETHERLANDS	78,882	82,932	55,999	57,703	48,668	49,311	44,041	48,381	54,849	62,982	66,585	70,716
POLAND	165,192	160,019	135,818	131,148	152,904	145,388	143,235	147,821	163,394	178,460	185,170	207,224
PORTUGAL	59,256	47,915	35,442	26,069	19,302	12,430	7,794	6,611	7,256	8,636	12,308	14,366
ROMANIA	67,255	62,520	48,862	45,419	44,016	43,587	44,984	47,017	52,206	53,301	59,725	n/a
SLOVAKIA	17,184	18,834	17,076	14,608	15,255	15,100	14,985	15,471	15,672	16,946	19,071	20,171
SLOVENIA	9,968	8,530	6,355	5,468	4,307	3,484	3,163	2,776	3,163	3,044	3,037	2,975
SPAIN	615,072	366,887	240,920	157,405	114,991	64,817	46,822	45,152	40,119	54,610	64,354	78,789
SWEDEN	32,021	22,821	19,500	20,064	25,993	29,225	29,164	34,603	42,441	48,227	54,876	53,442
ICELAND	2,978	893	1,148	565	1,076	934	1,149	1,120	1,513	1,768	2,303	n/a
NORWAY	28,640	21,705	18,090	20,046	26,275	28,456	28,072	28,265	29,286	31,470	32,830	30,397
SWITZERLAND	44,191	39,733	43,632	47,174	43,134	50,166	49,162	53,126	52,034	50,209	53,975	n/a
UNITED KINGDOM	148,010	124,970	106,720	114,020	115,590	109,440	117,810	142,470	141,870	162,530	164,390	178,800
AUSTRALIA	146,537	148,282	156,952	154,374	146,227	153,827	177,814	197,253	213,644	213,237	219,516	202,977
CANADA	214,137	176,441	186,855	175,623	180,093	185,494	181,428	194,461	187,605	190,923	200,262	187,177
RUSSIA	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	1,120,333
SINGAPORE	10,122	10,488	10,399	12,469	10,329	13,150	19,941	18,971	20,803	16,449	9,112	7,527
SOUTH KOREA	n/a	n/a	n/a	338,813	365,053	395,519	431,339	460,153	514,775	569,209	636,494	518,084
TURKEY	357,286	469,981	429,755	556,769	556,331	726,339	777,596	732,948	754,174	833,517	893,651	735,325
USA	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	1,255,100

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:
- Croatia
- Ireland
- Denmark
- United Kingdom
- Greece
- Australia

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

For Archive:
- Austria - data break in 1995

15. Real Gross Fixed Investment in Housing

Annual % change

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
AUSTRIA	0.6	-5.7	0.6	2.9	-1.4	-0.2	-0.4	1.0	2.3	6.2	1.3	4.3
BELGIUM	-1.5	-8.6	2.8	-2.6	0.2	-2.8	5.7	1.0	2.9	0.1	1.6	4.6
BULGARIA	22.4	-20.4	-40.8	-14.2	-26.7	-4.0	-3.3	-10.3	102.1	19.2	-2.2	1.5
CYPRUS	-1.0	-19.1	-14.4	-16.1	-19.0	-25.6	-7.9	-4.1	27.7	19.2	16.0	23.9
CZECHIA	-1.5	-4.6	10.3	-5.9	2.7	-7.7	10.2	22.5	5.0	5.2	6.9	5.5
DENMARK	-16.7	-20.4	-8.9	15.8	-5.5	-7.8	6.8	5.3	4.7	12.1	5.3	6.1
ESTONIA	-29.2	-35.9	-9.4	9.9	9.0	19.0	19.1	7.7	17.5	6.6	2.6	18.0
FINLAND	-9.6	-12.5	25.6	5.9	-1.6	-5.5	-5.4	1.7	10.6	5.1	4.5	-2.1
FRANCE	-3.0	-9.2	2.1	0.9	-2.2	-0.4	-1.9	-1.1	2.8	6.4	2.4	2.4
GERMANY	-3.1	-3.2	4.3	10.0	3.3	-0.8	2.9	-0.7	5.0	0.6	3.0	4.0
GREECE	-23.9	-19.6	-26.2	-14.6	-37.9	-31.1	-53.3	-25.8	-12.5	-5.5	17.2	12.1
HUNGARY	6.2	-3.4	-24.7	-27.4	-9.9	-6.0	11.0	16.8	9.7	16.0	11.3	5.5
IRELAND	-16.7	-37.6	-32.9	-31.1	-24.5	7.1	15.0	5.9	21.6	21.3	24.6	2.4
ITALY	-2.0	-10.0	0.2	-6.6	-9.0	-5.4	-7.9	-2.4	0.1	1.1	2.9	3.2
LATVIA	-11.8	-52.7	-28.4	-3.2	21.0	-0.4	10.3	5.2	-17.7	-0.2	7.3	7.8
LITHUANIA	24.3	-7.2	-29.7	1.0	2.3	11.5	16.9	14.9	6.8	-4.6	5.9	10.1
LUXEMBOURG	8.7	-22.3	-11.7	8.3	4.7	17.0	10.5	8.8	4.1	-7.4	8.3	-6.7
MALTA	-21.4	-26.6	-16.1	0.5	-9.7	-8.0	1.5	29.5	30.9	42.3	19.0	3.7
NETHERLANDS	0.8	-14.7	-16.0	-3.6	-12.9	-12.2	6.1	20.1	21.7	12.3	9.3	1.6
POLAND	6.2	-2.3	-4.2	1.2	5.1	0.9	8.4	-11.5	-2.9	-2.6	-7.3	6.1
PORTUGAL	-13.0	-14.4	-10.4	-11.7	-7.3	-14.2	-0.8	1.0	6.3	8.7	6.1	5.5
ROMANIA	40.9	-14.2	2.2	-10.2	5.1	-11.2	4.5	5.2	12.1	10.0	-24.9	n/a
SLOVAKIA	6.5	10.6	-12.2	4.7	4.8	12.0	-15.1	-1.6	24.3	2.9	9.5	3.3
SLOVENIA	12.4	-20.5	-20.4	-12.4	-12.5	-7.6	-6.7	0.7	-0.8	5.3	2.3	10.2
SPAIN	-8.4	-20.1	-13.0	-12.2	-5.3	-7.6	9.9	-3.2	8.9	11.5	7.7	2.9
SWEDEN	-14.8	-18.2	14.6	9.3	-13.9	4.0	18.2	15.8	9.8	7.1	-6.4	-8.2
EU 27	-5.0	-11.7	-2.6	-0.6	-3.4	-3.0	1.0	0.5	5.3	4.5	3.2	3.2
EURO AREA 19	-5.1	-11.7	-2.6	-0.9	-3.3	-3.1	0.1	-0.2	5.1	4.2	3.9	3.3
ICELAND	-21.9	-55.7	-18.0	5.4	6.9	10.8	15.4	-3.2	26.4	21.9	15.5	31.2
NORWAY	-9.0	-8.1	-1.6	17.0	10.9	5.3	-1.4	3.2	6.6	7.3	-6.2	-0.9
SWITZERLAND	-2.0	4.8	6.5	4.5	2.1	3.3	1.7	1.8	1.8	1.4	-0.6	n/a
UNITED KINGDOM	-12.4	-20.6	5.5	1.6	-2.4	5.7	4.0	2.0	3.0	6.7	3.4	0.6

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

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
AUSTRIA	4,029	4,061	4,083	4,441	4,463	4,489	4,507	4,506	4,542	4,600	n/a	n/a
BELGIUM	4,996	5,043	5,087	5,131	5,180	5,229	5,277	5,319	5,361	5,409	5,464	5,515
BULGARIA	3,767	3,789	3,804	3,900	3,909	3,918	3,928	3,935	3,944	3,951	3,959	n/a
CROATIA	n/a	n/a	n/a	1,924	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
CYPRUS	394	410	421	431	437	441	444	446	449	452	455	n/a
CZECHIA	4,596	4,635	4,671	4,700	4,729	4,754	n/a	n/a	n/a	n/a	n/a	n/a
DENMARK	2,696	2,722	2,770	2,786	2,797	2,812	2,827	2,844	2,861	2,878	2,901	2,919
ESTONIA	645	651	654	656	658	n/a	n/a	n/a	n/a	n/a	n/a	n/a
FINLAND	2,499	2,517	2,537	2,556	2,580	2,600	2,618	2,634	2,655	2,680	2,705	n/a
FRANCE	31,819	32,174	32,520	32,860	33,212	33,908	34,223	34,537	34,881	35,224	35,571	35,672
GERMANY	40,058	40,184	40,479	40,630	40,806	40,995	41,221	41,446	41,703	41,968	42,235	42,500
GREECE	6,265	6,317	6,372	6,425	6,458	6,478	6,489	6,497	6,504	6,510	6,517	6,525
HUNGARY	4,270	4,303	4,331	4,349	4,394	4,402	4,408	4,415	4,420	4,427	4,439	4,455
IRELAND	1,960	1,982	1,992	1,999	2,003	2,007	2,014	2,022	2,004	1,974	1,994	2,014
ITALY	29,598	30,112	30,580	31,791	31,576	n/a	n/a	n/a	n/a	n/a	n/a	n/a
LATVIA	1,042	1,035	n/a	1,019	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
LITHUANIA	1,328	1,337	1,341	1,283	1,289	1,298	1,403	1,413	1,428	1,445	1,451	1,483
LUXEMBOURG	175	n/a	n/a	223	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
MALTA	n/a	n/a	n/a	224	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
NETHERLANDS	7,105	7,172	7,218	7,266	7,386	7,449	7,535	7,588	7,641	7,741	7,815	7,892
POLAND	13,150	13,302	13,422	13,560	13,723	13,853	13,983	14,119	14,272	14,440	14,615	n/a
PORTUGAL	5,793	5,826	5,852	5,879	5,898	5,910	5,920	5,926	5,933	5,942	5,955	5,968
ROMANIA	8,329	8,385	8,428	8,722	8,761	8,800	8,841	8,882	8,929	8,977	9,031	n/a
SLOVAKIA	1,987	2,006	2,023	2,036	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
SLOVENIA	830	838	845	850	854	857	860	n/a	n/a	n/a	n/a	n/a
SPAIN	24,591	24,938	25,131	25,209	25,271	25,245	25,209	25,171	25,129	25,097	25,076	25,069
SWEDEN	4,466	4,488	4,508	4,524	4,551	4,634	4,669	4,717	4,796	4,859	4,925	4,978
ICELAND	129	130	131	131	132	132	134	135	136	138	140	144
NORWAY	2,274	2,301	2,343	2,369	2,399	2,427	2,456	2,485	2,516	2,548	2,582	2,610
SWITZERLAND	—	—	4,079	4,131	4,178	4,235	4,289	4,352	4,421	4,470	4,529	n/a
UNITED KINGDOM	26,317	26,529	26,696	26,855	27,008	27,151	27,306	27,498	27,713	27,954	28,203	n/a
AUSTRALIA	n/a	n/a	n/a	7,760	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
BRAZIL	58,181	59,253	57,324	62,117	63,768	65,130	67,039	68,037	68,899	69,471	71,015	72,395
JAPAN	57,586	n/a	n/a	n/a	n/a	60,629	n/a	n/a	n/a	n/a	62,407	n/a
RUSSIA	59,000	59,500	60,100	60,800	61,500	61,300	62,900	64,000	64,900	65,900	66,900	n/a
SINGAPORE	955	988	1,020	1,057	1,098	1,138	1,203	1,280	1,361	1,433	1,469	1,488
SOUTH KOREA	—	—	—	17,739	18,082	18,414	18,742	19,161	19,559	19,877	n/a	n/a
TURKEY	n/a	n/a	n/a	19,482	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
USA	130,415	131,269	131,776	132,168	132,600	133,199	133,946	134,764	135,660	136,570	138,449	139,641

***Sources:** European Mortgage Federation National Experts, National Statistics Offices, Japanese Ministry of Internal Affairs and Communications, 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:

- none

3) Notes:

- For Japan, the reference year is the Japanese Fiscal year, from April to March
- For further details on the methodologies, please see "Annex: Explanatory Note on data"
- n/a: figure not available

17. Number of Transactions

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
BELGIUM	121,604	115,069	128,094	128,621	124,358	124,356	135,180	103,514	119,063	123,848	130,323	149,562
CROATIA	3,025	2,861	2,319	2,169	2,357	1,997	2,410	1,672	2,791	2,429	2,880	3,458
CYPRUS	14,667	8,170	8,598	7,018	6,269	3,767	4,527	4,952	7,063	8,734	9,242	6,456
DENMARK	53,248	46,215	52,955	44,064	45,506	46,566	52,490	63,186	63,679	69,818	68,602	70,851
ESTONIA	28,738	20,809	23,747	23,327	26,760	30,141	31,093	33,081	33,410	51,780	59,303	59,188
FINLAND	70,483	71,012	70,689	69,099	71,645	63,440	58,520	61,954	61,334	62,654	60,276	63,073
FRANCE	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	n/a
GERMANY	467,000	485,000	525,000	571,000	576,000	565,000	562,000	577,000	575,000	567,000	571,000	580,000
GREECE	157,978	135,967	117,948	83,665	57,650	49,774	43,443	54,631	60,540	n/a	n/a	n/a
HUNGARY	179,199	115,610	112,212	110,024	105,700	104,129	127,592	154,212	160,975	165,782	176,336	154,940
IRELAND	87,565	44,375	28,618	26,818	31,802	34,662	47,238	56,178	55,153	61,180	63,168	67,152
ITALY	686,587	609,145	611,878	598,224	444,018	403,124	417,524	448,893	533,741	542,480	578,647	603,541
LATVIA	42,828	34,042	36,604	42,051	43,941	49,141	49,973	48,397	52,152	52,640	49,093	49,890
LUXEMBOURG	4,409	4,509	5,165	5,749	5,474	5,471	6,477	6,269	6,333	7,404	7,545	7,295
MALTA	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	6,502	n/a	n/a	n/a
NETHERLANDS	182,392	127,532	126,127	120,739	117,261	110,094	153,511	178,293	214,793	241,860	219,493	218,595
POLAND	77,526	60,894	76,698	86,897	116,555	124,685	130,656	160,789	173,467	188,596	211,597	n/a
PORTUGAL	241,040	205,442	129,950	93,618	76,398	79,775	84,215	107,302	127,106	153,292	178,691	181,478
ROMANIA	484,000	352,000	352,324	371,569	434,954	473,319	454,001	483,699	521,805	587,017	603,592	622,260
SLOVENIA	6,994	5,705	7,923	6,882	6,336	5,783	7,448	9,317	10,652	10,788	9,423	8,316
SPAIN	564,464	463,719	491,287	349,118	363,623	300,568	365,621	401,713	457,738	532,261	582,888	568,180
SWEDEN	146,882	146,582	152,072	144,946	143,675	151,582	159,536	168,298	160,200	164,735	158,233	162,860
ICELAND	5,218	3,039	4,012	5,887	6,690	7,431	8,314	10,067	11,074	12,106	12,190	12,197
NORWAY	65,241	70,995	100,177	110,844	113,276	109,437	112,147	119,681	121,578	114,382	118,196	119,950
UNITED KINGDOM	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	1,176,570
BRAZIL	563,657	622,876	858,370	946,633	921,879	996,720	991,934	889,981	768,610	633,815	707,073	778,171
JAPAN	170,800	168,800	164,600	166,800	154,900	169,467	155,900	154,200	158,100	147,500	159,867	n/a
RUSSIA	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	3,122,824	3,157,926
SINGAPORE	13,642	33,663	38,900	32,640	37,873	22,728	12,848	14,117	16,378	25,010	n/a	n/a
TURKEY	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	1,348,729
USA	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	6,830,000

***Sources:** European Mortgage Federation National Experts, National Statistics Offices, US Bureau of Census, Japanese Ministry of Internal Affairs and Communications*

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:
- Belgium
- Spain

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.
- In Japan, the number of second hand dwellings purchased between January and December of the indicated years.
- 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

2015 = 100

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
AUSTRIA	69.6	72.3	76.8	81.6	87.6	92.1	95.3	100.0	108.5	114.3	119.6	126.6
BELGIUM	86.8	86.5	89.9	93.5	97.4	99.2	100.7	100.0	104.4	108.8	113.1	119.4
BULGARIA	148.0	117.8	105.8	100.0	98.1	95.9	97.3	100.0	107.0	116.3	122.7	128.5
CROATIA	124.1	117.9	110.5	110.7	108.9	104.6	103.0	100.0	100.9	104.8	111.1	121.1
CYPRUS	142.1	135.4	133.8	129.4	122.5	114.5	104.5	100.0	98.6	99.7	101.3	103.3
CZECHIA	101.2	93.4	93.7	93.2	92.4	92.5	96.1	100.0	111.0	116.3	127.7	139.1
DENMARK	108.1	96.8	99.5	95.9	91.6	92.3	93.8	100.0	103.7	108.4	112.8	116.0
ESTONIA	96.3	60.5	63.9	69.3	74.4	82.3	93.6	100.0	104.8	110.5	117.4	124.9
FINLAND	88.2	87.9	95.6	98.2	99.8	101.4	100.8	100.0	100.9	101.9	103.0	103.9
FRANCE	100.3	96.2	103.5	107.3	105.0	103.1	100.5	100.0	101.6	105.0	108.3	112.4
GERMANY	85.4	84.8	85.3	87.4	90.0	92.7	95.6	100.0	106.0	112.1	120.7	128.8
GREECE	166.4	160.2	152.8	144.4	127.6	113.7	105.3	100.0	97.5	96.6	98.3	105.5
HUNGARY	103.1	96.6	91.6	90.0	87.3	82.0	84.7	100.0	117.3	133.0	157.2	183.4
IRELAND	151.2	122.3	105.9	87.8	75.9	76.9	89.6	100.0	107.3	119.0	131.2	134.3
ITALY	116.1	116.0	116.3	117.2	113.8	107.3	102.7	100.0	99.3	97.5	96.9	96.9
LATVIA	117.3	82.9	80.9	85.6	90.8	98.2	93.8	100.0	107.8	116.2	129.2	139.9
LITHUANIA	129.8	90.9	84.2	89.8	89.6	90.7	96.5	100.0	105.4	114.8	123.2	131.6
LUXEMBOURG	76.9	76.0	80.1	83.1	86.6	90.9	94.9	100.0	106.0	112.0	119.9	123.4
MALTA	94.2	90.0	91.0	89.8	92.5	92.2	94.5	100.0	105.5	111.0	117.5	124.6
NETHERLANDS	119.6	115.5	113.0	110.2	103.1	96.3	97.2	100.0	105.0	112.9	123.1	131.6
POLAND	118.2	110.1	107.6	107.0	98.1	97.1	98.9	100.0	102.5	107.3	119.3	132.1
PORTUGAL	107.5	106.5	107.4	102.1	94.9	93.1	97.0	100.0	107.1	121.2	137.1	149.3
ROMANIA	n/a	129.3	119.5	104.8	99.5	99.3	97.2	100.0	106.0	112.4	118.5	122.7
SLOVAKIA	123.2	109.6	105.2	102.0	100.8	99.9	99.1	100.0	104.2	110.9	116.6	125.4
SLOVENIA	129.4	117.0	117.2	120.3	112.1	106.3	99.3	100.0	103.8	111.9	121.9	131.6
SPAIN	140.4	130.1	124.9	118.0	107.7	101.4	98.9	100.0	101.9	104.3	107.8	111.3
SWEDEN	75.2	76.4	82.0	82.6	81.7	84.5	90.4	100.0	108.4	117.4	117.4	121.2
EU 27 (simple average)	112.2	102.9	101.4	100.0	97.4	96.3	97.1	100.0	104.9	111.0	118.3	125.5
Euro area 19 (simple average)	112.7	102.1	101.5	100.9	98.5	97.5	97.9	100.0	104.0	109.5	116.1	122.3
ICELAND	75.2	67.9	65.9	68.9	73.7	78.0	92.4	100.0	109.8	131.8	142.6	149.0
NORWAY	62.9	71.1	76.1	82.4	88.7	88.0	95.6	100.0	112.5	111.3	114.3	117.2
SWITZERLAND	80.0	80.4	82.6	87.9	92.1	94.9	97.5	100.0	101.6	103.6	106.7	110.6
UNITED KINGDOM	89.4	81.4	86.1	84.8	85.2	87.4	94.4	100.0	107.0	111.9	115.4	116.6
AUSTRALIA	69.6	72.4	80.9	79.1	78.9	84.1	91.7	100.0	105.5	114.3	112.7	108.1
BRAZIL	44.7	56.4	69.6	80.9	89.0	96.8	101.6	100.0	97.3	96.6	98.5	100.7
JAPAN	104.5	98.9	99.9	99.4	98.3	99.9	99.5	100.0	101.1	101.7	102.6	102.1
RUSSIA	77.3	73.8	72.6	77.7	87.7	94.1	99.6	100.0	97.3	96.4	99.2	105.1
SINGAPORE	86.1	69.7	92.7	101.4	103.8	107.1	104.0	100.0	96.9	95.8	103.3	105.6
SOUTH KOREA	74.0	81.1	82.4	87.7	85.4	89.3	93.8	100.0	103.2	103.2	104.6	107.3
TURKEY	n/a	n/a	57.0	60.6	66.8	75.3	86.6	100.0	112.2	122.4	127.8	140.6
USA	92.6	87.2	84.6	81.1	83.6	89.8	94.7	100.0	105.3	112.5	118.9	125.0

Sources: *European Mortgage Federation, National Statistics Offices, OECD, ECB (for the euro area (19)), EUROSTAT (for the EU), Central Statistical Bureau of Latvia (LV), Federal Housing Finance Agency (US), Ministry of Land Infrastructure Transport and Tourism (JP)*

1) Time series breaks

- Croatia: 2005 (change of source)
- Czech Republic: 2008 (change in source)
- Iceland: 2005 (change of source)
- Portugal: 2005

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

- Austria
- Croatia

3) Notes:

- For Hypostat 2020 the base year has been postponed to 2015 to be in line with the dispositions followed by Eurostat in compliance with Regulation (EC) No 2015/2010)
- For further details on the methodologies, please see "Annex: Explanatory Note on Data"
- n/a : figure not available
- 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. The reference year is the Japanese Fiscal year, from April to March. Regarding the index of the last fiscal year the average of the monthly price indices from April until the latest available month are used.
- 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

2015=100

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
AUSTRIA												
Vienna	60.0	63.8	68.8	74.6	86.4	93.8	97.8	100.0	103.8	105.4	110.9	116.3
Rest of the country	73.0	75.1	79.2	81.1	89.9	92.3	95.1	100.0	109.0	114.4	124.1	127.4
BELGIUM												
Brussels	n/a	n/a	88.0	93.4	97.5	101.5	97.2	100.0	103.0	104.3	106.9	112.7
BULGARIA												
Sofia	146.2	109.0	98.4	92.1	91.1	90.3	92.9	100.0	111.0	123.1	131.2	141.7
Varna	146.9	111.0	100.1	93.9	90.3	89.5	91.9	100.0	107.6	119.0	126.4	138.5
Plovdiv	139.6	119.8	104.1	98.1	94.3	91.7	90.8	100.0	105.6	115.9	121.0	129.7
CROATIA												
Zagreb	132.7	123.5	112.5	112.1	109.9	103.5	102.2	100.0	100.7	105.1	116.4	131.8
Adriatic Coast	118.4	114.4	109.4	110.7	108.7	105.5	103.4	100.0	101.3	105.7	111.4	119.1
Rest of the country	117.4	113.6	109.1	108.6	108.0	103.6	102.8	100.0	99.2	99.7	100.3	104.1
CYPRUS												
Nicosia	137.7	132.1	131.4	129.7	124.1	115.4	105.6	100.0	97.6	98.3	99.4	100.9
Limassol	135.2	126.9	129.6	123.6	118.9	113.2	104.1	100.0	99.1	101.2	104.4	109.3
Larnaca	150.1	147.3	144.7	138.1	126.9	115.7	104.9	100.0	98.8	98.3	99.7	102.5
CZECHIA												
Prague	108.2	96.7	92.9	91.3	93.3	95.2	96.0	100.0	110.7	119.6	131.6	n/a
DENMARK												
Copenhagen	84.2	72.3	80.6	80.3	77.9	83.6	90.4	100.0	106.0	113.1	122.8	125.5
Aarhus	92.2	85.6	91.7	90.4	90.1	91.6	92.7	100.0	102.9	105.5	110.7	113.1
Odense	105.6	95.3	97.5	93.6	90.8	92.9	95.0	100.0	104.6	107.0	113.4	118.2
FINLAND												
Helsinki	79.6	80.1	89.6	93.1	95.4	99.2	99.7	100.0	102.8	106.3	122.8	126.9
Tampere	86.6	85.6	92.6	95.0	96.7	98.1	99.1	100.0	101.1	103.0	120.5	122.9
Turku	84.8	85.2	91.1	92.6	94.2	96.1	99.2	100.0	100.9	104.3	104.4	109.5
FRANCE												
Paris	80.7	77.6	91.5	104.5	103.4	101.9	99.6	100.0	104.3	113.2	119.7	130.8
Marseille	110.6	107.6	113.8	116.2	111.6	106.4	102.8	100.0	97.5	102.4	105.8	109.7
Lyon	80.0	80.8	90.8	96.6	100.6	100.4	98.9	100.0	103.5	113.2	123.9	138.2
GERMANY												
Aggregate seven largest Germany cities	69.2	70.3	73.1	77.1	81.9	86.7	92.1	100.0	109.8	122.4	132.2	137.4
GREECE												
Athens	174.3	166.2	160.9	150.6	132.9	116.5	105.6	100.0	98.1	97.2	99.8	110.3
Thessaloniki	177.4	166.8	154.5	144.0	124.5	113.2	105.7	100.0	96.7	95.3	96.3	103.0

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
HUNGARY												
Budapest	93.4	89.5	84.5	83.6	80.2	73.1	78.5	100.0	123.7	142.5	173.2	211.3
Debrecen	95.8	91.3	87.2	85.9	89.2	79.0	84.0	100.0	117.9	134.6	158.0	202.0
Szeged	96.4	97.1	91.8	90.9	88.2	82.0	85.1	100.0	113.8	134.6	158.2	203.8
ITALY												
Rome	n/a	111.9	111.5	113.0	113.5	109.3	105.4	100.0	95.1	92.0	89.8	87.5
Milan	n/a	98.6	99.5	101.1	100.8	99.1	100.5	100.0	99.2	99.3	100.2	101.9
Naples	n/a	110.9	110.6	108.9	106.2	100.8	101.5	100.0	97.6	96.9	96.8	96.5
IRELAND												
Dublin	143.2	108.2	89.9	75.4	66.7	73.2	90.9	100.0	105.0	115.0	124.8	124.8
NETHERLANDS												
Amsterdam	103.7	97.7	97.3	97.0	91.5	86.7	91.1	100.0	113.6	129.5	146.0	154.4
The Hague	115.0	111.8	110.2	108.3	100.8	93.9	96.2	100.0	108.3	120.3	135.4	146.1
Rotterdam	108.5	106.6	105.8	105.0	99.8	94.3	95.8	100.0	107.1	121.0	138.6	149.9
POLAND												
Cracovia	122.2	114.8	108.4	106.6	97.8	97.1	99.8	100.0	102.0	102.3	113.4	127.2
Lodz	110.0	103.6	105.8	104.8	103.0	98.1	98.2	100.0	100.2	105.6	115.3	124.8
Warsaw	120.3	108.8	117.4	117.9	100.0	101.8	104.5	100.0	102.3	113.2	134.2	145.8
PORTUGAL												
Lisbon	n/a	104.4	105.2	110.1	99.2	95.7	96.4	100.0	105.4	114.8	127.0	141.1
ROMANIA												
Bucarest	n/a	155.4	130.9	104.7	106.8	96.9	96.7	100.0	107.5	116.4	121.6	125.6
SLOVAKIA												
Bratislava	116.5	103.3	102.0	99.1	98.1	98.0	97.3	100.0	105.7	112.0	116.5	124.2
Košice	120.2	97.4	99.5	103.1	102.7	98.1	97.3	100.0	98.5	107.3	105.4	112.3
Prešov	141.1	120.7	110.9	110.3	107.8	105.7	102.7	100.0	105.3	111.8	117.5	125.1
SLOVENIA												
Ljubliana	133.1	120.7	120.1	123.8	116.3	102.8	95.0	100.0	106.1	120.0	134.5	137.9
SPAIN												
Barcelona	140.4	128.5	121.9	111.7	100.2	97.5	97.1	100.0	104.5	110.3	123.4	129.0
Madrid	145.2	135.8	131.6	123.5	110.3	100.3	98.7	100.0	106.2	113.0	117.0	123.7
Valencia	151.5	142.1	132.5	123.3	108.8	102.0	99.5	100.0	102.6	101.7	105.2	110.3
SWEDEN												
Stockholm	68.6	68.9	75.6	76.6	76.3	79.4	87.7	100.0	108.7	114.9	108.8	109.3
Malmö	84.8	86.6	92.8	91.9	88.4	90.1	93.7	100.0	111.3	121.8	126.0	131.6
Göteborg	74.0	75.2	81.8	83.1	82.4	85.6	90.6	100.0	106.6	117.6	118.5	122.3

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
ICELAND												
Reykjavik	78.9	70.9	68.2	71.0	77.2	83.1	91.7	100.0	110.5	132.6	140.6	145.7
NORWAY												
Oslo	54.1	62.8	68.3	75.3	84.3	79.3	90.0	100.0	126.0	112.7	119.9	126.5
Bergen	60.2	69.8	75.6	81.8	88.3	88.9	98.8	100.0	101.0	101.0	102.9	105.7
Trondheim	59.4	66.9	73.1	81.6	89.6	91.3	97.3	100.0	104.6	107.0	106.2	107.5
UNITED KINGDOM												
London	66.6	60.7	66.9	68.3	71.5	77.4	90.8	100.0	110.0	113.0	112.4	110.9
AUSTRALIA												
Canberra	80.7	84.7	94.8	94.0	93.4	94.0	96.2	100.0	105.4	113.1	116.6	116.6
Sydney	58.3	60.4	67.8	67.5	68.4	75.0	85.9	100.0	106.6	117.5	112.6	106.6
Melbourne	69.1	74.0	86.1	84.0	81.6	86.0	92.6	100.0	108.9	122.7	122.7	117.0
BRAZIL												
São Paulo	n/a	n/a	n/a	n/a	n/a	n/a	96.0	100.0	100.6	98.1	99.2	102.6
Rio de Janeiro	n/a	n/a	n/a	n/a	n/a	n/a	98.2	100.0	98.9	94.6	90.8	90.4
Belo Horizonte	n/a	n/a	n/a	n/a	n/a	n/a	100.7	100.0	97.2	94.7	92.8	94.0
JAPAN												
Tokyo	102.0	96.0	98.2	96.7	94.5	96.8	96.0	100.0	102.8	104.4	106.7	105.5
Osaka	109.4	102.6	103.2	102.4	100.4	100.4	99.1	100.0	100.3	102.2	104.4	103.3
Aichi	108.9	102.7	101.4	99.7	97.7	98.2	97.6	100.0	102.6	103.2	103.5	105.6
RUSSIA												
Moscow	72.4	74.1	75.6	79.6	84.7	89.8	94.6	100.0	101.1	99.5	100.9	107.1
St. Petersburg	86.9	83.5	79.5	82.8	92.5	97.0	99.7	100.0	102.3	103.3	110.5	116.1
SOUTH KOREA												
Seul	80.6	97.7	94.6	91.8	85.0	87.8	91.6	100.0	108.5	121.4	142.3	145.9
Busan	57.1	63.5	74.9	87.2	84.8	87.9	91.3	100.0	110.9	110.7	105.1	107.8
TURKEY												
Ankara	n/a	n/a	45.4	49.3	55.0	66.1	81.2	100.0	112.8	117.8	118.9	133.7
Istanbul	n/a	n/a	61.9	65.4	72.8	80.9	88.8	100.0	109.1	116.7	118.4	120.2
Izmir	n/a	n/a	57.1	62.4	67.6	77.0	87.1	100.0	116.1	137.8	145.9	160.9
USA												
Washington - DC	68.5	66.6	68.6	70.7	76.3	85.4	94.5	100.0	106.0	110.6	120.5	125.5
New York	99.3	96.2	95.4	92.9	93.0	95.1	97.2	100.0	103.4	108.8	116.3	121.0
Los Angeles	85.9	78.9	78.3	74.3	75.9	85.9	93.0	100.0	97.3	106.2	111.0	114.3

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:
- Turkey

3) Notes:
- For Hypostat 2020 the base year has been postponed to 2015 to be in line with the dispositions followed by Eurostat in compliance with Regulation (EC) No 2015/2010
- 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

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
AUSTRIA	1.0	4.0	6.2	6.3	7.3	5.2	3.5	4.9	8.5	5.3	4.7	5.8
BELGIUM	5.2	-0.4	3.9	4.0	4.1	1.9	1.5	-0.7	4.4	4.2	3.9	5.6
BULGARIA	25.0	-20.4	-10.2	-5.5	-1.9	-2.2	1.4	2.8	7.0	8.7	5.5	4.8
CROATIA	1.2	-5.0	-6.3	0.2	-1.6	-3.9	-1.6	-2.9	0.9	3.8	6.1	9.0
CYPRUS	17.6	-4.7	-1.1	-3.3	-5.3	-6.5	-8.8	-4.3	-1.4	1.1	1.6	2.0
CZECHIA	11.8	-7.7	0.3	-0.6	-0.8	0.1	3.8	4.1	11.0	4.8	9.8	8.9
DENMARK	-4.2	-10.5	2.8	-3.6	-4.5	0.8	1.5	6.7	3.7	4.5	4.1	2.8
ESTONIA	-9.6	-37.2	5.7	8.5	7.3	10.7	13.7	6.9	4.8	5.4	6.2	6.4
FINLAND	0.6	-0.3	8.8	2.7	1.6	1.6	-0.6	-0.8	0.9	1.1	1.0	0.9
FRANCE	-3.8	-4.1	7.6	3.7	-2.1	-1.8	-2.5	-0.5	1.6	3.3	3.2	3.8
GERMANY	3.3	-0.7	0.6	2.4	3.0	3.0	3.1	4.6	6.0	5.8	7.7	6.8
GREECE	1.7	-3.7	-4.6	-5.5	-11.7	-10.9	-7.5	-5.0	-2.5	-1.0	1.8	7.3
HUNGARY	1.0	-6.3	-5.2	-1.8	-3.0	-6.1	3.3	18.1	17.3	13.4	18.2	16.6
IRELAND	-7.0	-19.1	-13.4	-17.1	-13.5	1.3	16.5	11.6	7.3	10.9	10.2	2.4
ITALY	0.5	-0.1	0.3	0.8	-2.9	-5.7	-4.3	-2.6	-0.7	-1.9	-0.6	0.0
LATVIA	-17.8	-29.3	-2.4	5.8	6.1	8.2	-4.5	6.6	7.8	7.9	11.2	8.2
LITHUANIA	9.0	-29.9	-7.4	6.6	-0.2	1.2	6.4	3.7	5.4	8.9	7.3	6.8
LUXEMBOURG	3.3	-1.2	5.4	3.7	4.2	5.0	4.4	5.4	6.0	5.6	7.0	2.9
MALTA	11.1	-4.4	1.1	-1.4	3.1	-0.4	2.6	5.8	5.5	5.3	5.8	6.1
NETHERLANDS	3.0	-3.4	-2.2	-2.4	-6.5	-6.6	0.9	2.9	5.0	7.5	9.0	6.9
POLAND	-1.1	-6.8	-2.3	-0.6	-8.3	-1.0	1.8	1.1	2.5	4.7	11.2	10.7
PORTUGAL	3.8	-0.9	0.8	-4.9	-7.1	-1.9	4.2	3.1	7.1	13.2	13.1	8.9
ROMANIA	n/a	n/a	-7.5	-12.3	-5.1	-0.3	-2.1	2.9	6.0	6.0	5.5	3.5
SLOVAKIA	22.1	-11.1	-4.0	-3.1	-1.2	-0.9	-0.8	0.9	4.2	6.4	5.2	7.5
SLOVENIA	7.0	-9.5	0.1	2.7	-6.8	-5.2	-6.6	0.7	3.8	7.8	8.9	8.0
SPAIN	0.7	-7.4	-3.9	-5.6	-8.7	-5.8	-2.4	1.1	1.9	2.4	3.4	3.2
SWEDEN	3.0	1.7	7.3	0.8	-1.1	3.4	7.0	10.7	8.4	8.3	0.0	3.2
ICELAND	6.2	-9.7	-3.0	4.6	7.0	5.8	18.5	8.2	9.8	20.0	8.2	4.4
NORWAY	-8.0	13.1	7.1	8.2	7.6	-0.7	8.7	4.6	12.5	-1.1	2.8	2.6
UNITED KINGDOM	-4.5	-8.9	5.7	-1.5	0.4	2.6	8.0	6.0	7.0	4.6	3.1	1.1
AUSTRALIA	3.9	4.0	11.7	-2.2	-0.3	6.6	9.1	9.0	5.5	8.3	-1.4	-4.1
BRAZIL	23.7	26.0	23.4	16.3	10.1	8.7	5.0	-1.6	-2.7	-0.7	1.9	2.2
JAPAN	n/a	-5.4	1.0	-0.5	-1.2	1.6	-0.3	0.5	1.1	0.6	0.9	-0.5
RUSSIA	17.4	-4.5	-1.6	7.0	12.9	7.3	5.9	0.4	-2.7	-1.0	3.0	5.9
SINGAPORE	12.3	-19.0	32.9	9.5	2.3	3.2	-2.9	-3.9	-3.1	-1.1	7.8	2.3
SOUTH KOREA	-4.1	9.6	1.6	6.4	-2.6	4.5	5.1	6.6	3.2	0.0	1.3	2.6
TURKEY	n/a	n/a	n/a	6.5	10.1	12.7	15.0	15.5	12.2	9.1	4.5	10.0
USA	-8.0	-5.8	-3.0	-4.1	3.1	7.4	5.4	5.6	5.3	6.8	5.7	5.1

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

1) Time series breaks
- See Table18

2) The series has been revised for at least two years in:
- See Table18

3) Notes
- For further details on the methodologies, please see "Annex: Explanatory Note on data"
- n/a : figure not available
- See Table 18 for further notes.

21. Nominal House Price to Disposable Income of Households Ratio

2015 = 100

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
AUSTRIA	87.0	90.3	95.0	98.3	101.5	106.4	92.3	100.0	112.4	122.0	132.8	142.4
BELGIUM	97.2	96.7	99.3	100.2	101.4	101.9	102.2	100.0	101.3	101.7	102.7	104.5
BULGARIA	182.3	141.9	125.4	111.3	108.7	104.2	106.4	100.0	102.4	103.7	107.6	108.2
CROATIA	163.6	156.0	143.9	143.8	142.5	140.6	138.7	100.0	100.7	n/a	n/a	n/a
CYPRUS	126.9	124.0	118.4	112.0	109.1	107.5	104.8	100.0	93.3	88.7	86.5	85.3
CZECHIA	105.0	99.8	95.0	91.6	92.0	95.0	101.0	100.0	105.8	103.7	103.4	106.5
DENMARK	132.9	116.3	113.0	105.3	98.4	97.5	97.7	100.0	99.1	100.3	101.3	103.1
ESTONIA	116.4	81.0	86.0	85.7	89.1	90.9	98.1	100.0	99.7	98.3	95.0	94.7
FINLAND	106.2	103.2	107.9	106.5	105.2	104.2	102.5	100.0	99.0	98.0	95.5	93.6
FRANCE	108.7	104.1	108.9	110.7	107.3	105.7	101.7	100.0	99.7	100.8	101.3	101.5
GERMANY	98.7	98.6	97.0	96.0	96.5	97.8	98.3	100.0	102.6	105.2	109.3	113.2
GREECE	114.4	108.1	111.9	115.7	111.7	108.9	101.6	100.0	99.8	97.7	96.9	100.8
HUNGARY	104.8	109.4	100.3	92.9	91.1	84.5	87.3	100.0	112.6	118.5	133.4	143.2
IRELAND	142.4	123.7	111.0	96.4	80.9	81.8	93.7	100.0	101.7	106.0	111.2	106.7
ITALY	115.7	118.4	118.8	116.7	116.5	109.3	103.9	100.0	98.0	94.3	92.2	91.1
LATVIA	108.9	94.6	100.0	105.8	103.9	107.9	98.9	100.0	102.1	103.9	105.8	104.6
LITHUANIA	144.4	109.9	100.7	102.3	97.8	94.7	99.4	100.0	98.1	102.4	104.8	103.4
LUXEMBOURG	99.1	95.0	96.5	97.7	96.2	97.7	96.1	100.0	103.6	102.4	104.0	104.9
NETHERLANDS	99.7	127.4	122.7	117.1	108.7	100.5	99.0	100.0	102.0	107.1	112.0	115.4
POLAND	84.5	140.6	121.2	118.0	105.2	102.6	101.4	100.0	101.4	98.4	104.9	109.7
PORTUGAL	99.7	105.4	104.6	101.5	97.0	96.0	100.4	100.0	103.2	113.3	122.7	129.3
ROMANIA	n/a	162.4	139.2	121.0	117.8	108.2	104.2	100.0	97.3	91.4	85.6	81.9
SLOVAKIA	149.0	126.1	118.2	113.3	108.0	106.6	103.5	100.0	100.8	102.0	100.3	103.5
SLOVENIA	134.2	121.1	120.1	120.8	115.3	109.1	100.9	100.0	99.4	102.2	105.2	106.4
SPAIN	138.4	129.1	123.5	115.9	111.6	105.4	102.8	100.0	99.2	98.7	98.4	97.7
SWEDEN	100.2	108.5	100.2	91.1	83.4	83.6	91.1	100.0	105.0	111.2	112.8	115.0
NORWAY	85.3	96.9	91.1	91.1	89.1	87.1	96.2	100.0	115.0	110.3	111.5	111.5
UNITED KINGDOM	86.8	107.1	108.3	116.4	112.2	112.4	111.9	100.0	124.8	128.5	126.9	125.9
JAPAN	118.9	97.5	87.5	83.8	76.5	98.4	105.6	100.0	89.7	94.3	95.9	88.8
USA	92.6	87.2	84.6	81.1	83.6	89.8	94.7	100.0	105.3	112.5	118.9	125.0

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 2020 the base year has been postponed to 2015
- 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

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
AUSTRIA	4,973	5,317	7,645	17,174	17,010	18,854	22,450	27,345	30,894	31,915	42,001	49,124
BELGIUM	n/a	n/a	n/a	n/a	2,590	8,188	10,575	15,105	16,700	15,250	20,092	23,637
CYPRUS	n/a	n/a	n/a	5,200	4,550	1,000	1,000	650	650	650	650	650
CZECHIA	8,091	8,179	8,234	8,546	9,056	10,355	11,106	11,656	13,060	15,522	13,757	14,168
DENMARK	255,140	319,434	332,505	345,529	359,560	359,646	369,978	377,903	389,200	393,447	396,246	402,432
FINLAND	5,750	7,625	10,125	18,839	26,684	29,783	32,031	33,974	33,822	34,625	37,257	37,774
FRANCE	119,092	134,757	156,239	189,395	208,297	202,822	188,925	188,669	177,813	185,820	194,227	209,294
GERMANY	217,367	225,100	219,947	223,676	215,999	199,900	189,936	197,726	207,338	215,199	233,372	239,570
GREECE	5,000	6,500	19,750	19,750	18,046	16,546	14,546	4,961	4,485	10,100	13,840	13,190
HUNGARY	7,105	7,375	6,323	5,175	4,958	4,016	3,272	3,022	2,189	2,641	3,762	3,868
IRELAND	23,075	29,725	29,037	30,007	25,099	20,827	18,473	16,916	17,062	16,416	20,788	19,337
ITALY	6,500	14,000	26,925	50,768	116,405	122,099	122,464	122,135	138,977	139,937	163,311	172,728
LATVIA	90	85	63	37	—	—	—	—	—	—	—	—
LUXEMBOURG	150	—	—	—	—	—	—	—	—	—	—	—
NETHERLANDS	20,534	27,664	40,180	51,970	59,822	61,015	58,850	61,101	67,604	72,880	94,797	118,969
POLAND	561	583	511	527	657	707	882	1,230	2,216	3,959	4,925	6,111
PORTUGAL	15,270	20,270	27,690	33,248	34,321	36,016	33,711	34,461	32,970	35,530	35,795	36,600
SLOVAKIA	3,576	3,608	3,442	3,768	3,835	4,067	3,939	4,198	4,197	5,118	4,858	6,658
SPAIN	315,055	336,750	343,401	369,208	406,736	334,572	282,568	252,383	232,456	216,498	213,253	220,767
SWEDEN	117,628	133,903	188,750	208,894	220,374	217,854	209,842	221,990	222,444	219,212	217,979	235,111
ICELAND	492	685	807	808	893	803	927	1,205	1,902	2,506	3,123	3,071
NORWAY	21,924	53,582	70,401	91,852	107,242	105,202	102,704	107,694	113,051	113,359	119,398	123,023
SWITZERLAND	36,180	46,283	65,046	71,881	85,707	89,064	100,436	111,542	117,564	111,632	119,422	128,248
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	108,857
UNITED KINGDOM (non regulated)	78,092	90,993	77,965	63,429	37,818	18,077	16,143	8,236	—	—	—	—
AUSTRALIA	n/a	n/a	n/a	2,478	35,962	51,831	64,741	69,312	70,796	64,001	65,855	64,630
BRAZIL	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	454	2,487
CANADA	6,574	7,525	18,003	38,610	49,121	50,459	64,836	85,759	100,830	93,095	107,496	113,016
JAPAN	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	1,000	3,585
SINGAPORE	n/a	n/a	n/a	n/a	n/a	n/a	n/a	919	1,963	5,576	8,466	8,990
SOUTH KOREA	n/a	773	1,120	2,171	2,407	2,536	1,349	1,954	2,490	2,619	2,771	6,183
TURKEY	n/a	n/a	n/a	n/a	n/a	n/a	n/a	128	628	1,923	2,334	1,967
USA	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

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
AUSTRIA	1,321	1,442	3,600	3,664	3,805	6,093	7,111	5,457	7181	3,165	11007	11,228
BELGIUM	n/a	n/a	n/a	n/a	2,590	5,598	2,387	4,530	2345	1,050	5842	5,000
CYPRUS	n/a	n/a	n/a	5,200	—	—	—	—	—	—	—	—
CZECHIA	938	738	723	770	1,309	1,791	2,188	2,729	1693	4,074	2,573	1,516
DENMARK	103,230	125,484	148,475	145,147	185,845	149,989	154,310	163,050	130,329	123,205	113,441	165,208
FINLAND	1,250	2,125	5,250	9,964	9,368	3,771	6,469	7,425	4,679	5,550	5,650	6,650
FRANCE	64,009	37,285	51,525	88,776	53,310	21,386	17,558	33,903	19,482	28,347	27,108	37,050
GERMANY	57,345	56,852	42,216	40,911	38,540	33,583	29,145	40,369	35,070	36,841	43,142	41,973
GREECE	5,000	1,500	17,250	5,000	—	—	750	—	3,675	7,375	6,650	200
HUNGARY	3,331	3,209	542	2,264	1,140	559	91	888	625	1,166	2,004	487
IRELAND	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	27,000
LATVIA	25	—	—	—	—	—	—	—	—	—	—	—
LUXEMBOURG	—	—	—	—	—	—	—	—	—	—	—	—
NETHERLANDS	5,355	7,725	13,660	14,143	10,738	4,478	3,910	7,908	9,908	11,925	28,714	28,388
POLAND	197	88	138	269	228	116	269	416	1,099	2,048	1,244	1,284
PORTUGAL	7,420	6,000	11,570	8,450	4,850	4,500	3,825	8,675	5,950	8,200	2,350	4,800
SLOVAKIA	1,414	707	1,179	867	785	841	654	1,159	751	1,316	800	2,250
SPAIN	54,187	43,580	51,916	72,077	98,846	22,919	23,038	31,375	31,393	30,000	19,935	19,435
SWEDEN	43,488	53,106	79,910	69,800	48,936	51,633	48,424	60,729	52,187	48,525	54,199	53,258
ICELAND	321	—	—	25	113	51	91	414	560	850	755	788
NORWAY	15,660	30,105	21,062	28,135	22,946	18,339	14,474	17,750	23,058	21,256	24,331	20,766
SWITZERLAND	5,316	12,414	14,834	15,379	19,723	13,583	19,193	15,840	16,106	12,922	13,725	15,360
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	22,959
UNITED KINGDOM (non regulated)	110,761	22,177	900	—	—	—	—	—	—	—	—	—
AUSTRALIA	n/a	n/a	n/a	2,478	33,484	15,868	13,253	10,004	11,382	7,351	11,075	9,511
BRAZIL	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	454	2,040
CANADA	4,574	951	12,648	19,977	12,937	9,354	19,275	29,287	28,148	12,441	24,384	23,647
JAPAN	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	1,000	2,585
SINGAPORE	n/a	n/a	n/a	n/a	n/a	n/a	n/a	919	1,014	3,753	3,762	914
SOUTH KOREA	n/a	773	347	1,051	178	466	-	919	949	417	587	3,369
TURKEY	n/a	n/a	n/a	n/a	n/a	n/a	n/a	128	500	1,334	766	256
USA	—	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

24. Total Covered Bonds Outstanding

As % of GDP, backed by Mortgages

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
AUSTRIA	1.7	1.8	2.6	5.5	5.3	5.8	6.7	7.9	8.6	8.6	10.9	12.3
BELGIUM	n/a	n/a	n/a	n/a	0.7	2.1	2.6	3.6	3.9	3.4	4.4	5.0
CYPRUS	n/a	n/a	n/a	26.3	23.4	5.6	5.7	3.6	3.4	3.2	3.1	3.0
CZECHIA	5.0	5.5	5.3	5.2	5.6	6.6	7.1	6.9	7.4	8.1	6.6	6.4
DENMARK	105.6	138.1	136.7	139.4	141.2	139.0	139.2	138.4	137.5	134.6	131.5	129.4
FINLAND	3.0	4.2	5.4	9.5	13.3	14.6	15.5	16.1	15.5	15.3	15.9	15.7
FRANCE	6.0	7.0	7.8	9.2	10.0	9.6	8.8	8.6	8.0	8.1	8.2	8.6
GERMANY	8.5	9.2	8.6	8.3	7.9	7.1	6.5	6.5	6.6	6.6	7.0	7.0
GREECE	2.1	2.7	8.7	9.5	9.4	9.2	8.1	2.8	2.5	5.6	7.5	7.0
HUNGARY	6.6	7.8	6.4	5.1	5.0	3.9	3.1	2.7	1.9	2.1	2.8	2.7
IRELAND	12.3	17.5	17.3	17.6	14.3	11.6	9.5	6.4	6.3	5.5	6.4	5.6
ITALY	0.6	1.3	2.5	4.8	11.3	12.0	11.9	11.3	12.5	12.0	13.6	13.9
LATVIA	0.4	0.5	0.4	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LUXEMBOURG	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NETHERLANDS	3.2	4.4	6.3	8.0	9.2	9.2	8.8	8.9	9.5	9.9	12.2	14.7
POLAND	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.3	0.5	0.8	1.0	1.2
PORTUGAL	8.5	11.6	15.4	18.9	20.4	21.1	19.5	19.2	17.7	18.1	17.5	17.2
SLOVAKIA	5.4	5.6	5.1	5.3	5.2	5.5	5.2	5.3	5.2	6.1	5.4	7.1
SPAIN	28.4	31.5	32.0	34.7	39.4	32.8	27.4	23.4	20.9	18.6	17.7	17.7
SWEDEN	33.1	42.6	50.4	50.6	51.2	49.3	47.8	48.7	47.7	45.7	46.3	49.6
ICELAND	4.5	7.3	7.8	7.4	7.8	6.7	6.9	7.7	10.2	11.5	14.3	14.2
NORWAY	6.9	19.3	21.7	25.6	27.0	26.7	27.3	31.0	33.9	32.1	32.5	34.1
SWITZERLAND	9.6	11.9	14.8	14.3	16.5	17.2	18.8	18.2	19.4	18.5	20.0	20.4
UNITED KINGDOM (regulated)	6.3	6.3	6.7	6.4	7.0	5.5	5.0	4.0	4.0	3.8	3.9	4.3
UNITED KINGDOM (non regulated)	3.9	5.2	4.2	3.3	1.8	0.9	0.7	0.3	0.0	0.0	0.0	0.0
AUSTRALIA	n/a	n/a	n/a	0.2	3.0	4.4	5.9	5.7	6.5	5.4	5.4	5.2
BRAZIL	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.0	0.2
CANADA	0.6	0.8	1.5	3.0	3.5	3.6	4.8	6.1	7.3	6.4	7.4	7.3
JAPAN	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.0	0.1
SINGAPORE	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.3	0.7	1.8	2.7	2.7
SOUTH KOREA	n/a	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.4
TURKEY	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.1	0.3	0.4	0.3
USA	0.1	0.1	0.1	0.1	0.0	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

	2012	2013	2014	2015	2016	2017	2018	2019
AUSTRIA	1,869	1,815	1,702	1,576	1,438	1,292	1,142	1,142
BELGIUM	71,237	63,318	55,813	47,729	44,817	45,070	38,575	41,517
FINLAND	0	0	0	0	0	0	0	0
FRANCE	17,687	10,237	50,147	59,336	63,008	78,996	83,279	82,281
GERMANY	28,092	23,793	20,158	26,563	26,016	28,141	29,296	2,909
GREECE	6,422	4,274	3,658	2,600	1,315	1,208	1,093	1,058
IRELAND	51,183	37,626	36,159	31,532	30,282	27,895	26,961	25,566
ITALY	101,739	90,205	80,685	69,473	60,816	60,435	60,094	55,324
NETHERLANDS	269,518	250,142	239,768	209,590	192,470	164,846	167,214	160,892
PORTUGAL	29,149	27,621	26,051	22,736	19,237	17,369	16,755	16,310
SPAIN	127,685	118,040	122,570	118,604	126,112	126,644	112,336	109,539
SWEDEN	96	380	302	499	611	0	0	0
UNITED KINGDOM	301,776	254,807	217,984	160,668	146,197	142,546	152,819	149,394
RUSSIA	1,725	1,281	505	380	1,004	1,868	3,083	2,842

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

	2012	2013	2014	2015	2016	2017	2018	2019
BELGIUM	4,699	2,018	0	1,216	3,636	6,680	12,103	6,960
FRANCE	2,628	0	47,216	11,362	10,360	28,210	2,252	21,810
GERMANY	0	0	40	20,487	0	2,500	6,711	0
GREECE	1,343	0	0	0	0	0	0	0
IRELAND	890	1,021	2,072	206	4,377	4,210	7,750	5,010
ITALY	35,826	4,914	4,756	6,589	6,760	12,880	23,627	13,590
NETHERLANDS	47,196	39,462	14,231	19,359	32,380	14,850	6,978	10,330
PORTUGAL	1,107	1,373	0	1,192	0	0	165	0
SPAIN	3,302	7,322	17,321	9,566	20,337	14,450	2,330	2,880
SWEDEN	0	284	0	358	214	310	9,084	0
UNITED KINGDOM	40,075	8,399	25,201	30,687	41,630	33,130	29,168	39,820

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

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
AUSTRIA	293,762	288,044	295,897	310,129	318,653	323,910	333,146	344,269	357,300	370,296	385,712	398,682
BELGIUM	351,743	346,473	363,140	375,968	386,175	392,880	403,003	416,701	430,231	445,957	459,532	473,085
BULGARIA	37,218	37,400	38,044	41,253	42,034	41,885	42,876	45,676	48,621	52,310	56,087	60,675
CROATIA	47,998	45,064	45,112	44,793	43,941	43,703	43,401	44,616	46,616	49,094	51,625	53,937
CYPRUS	19,010	18,676	19,410	19,803	19,441	17,995	17,409	17,827	18,873	20,040	21,138	21,944
CZECHIA	161,313	148,682	156,718	164,041	161,434	157,742	156,660	168,473	176,370	191,722	207,570	220,201
DENMARK	241,614	231,278	243,165	247,880	254,578	258,743	265,757	273,018	283,110	292,408	301,341	310,937
ESTONIA	16,638	14,212	14,861	16,827	18,051	19,033	20,180	20,782	21,694	23,776	26,036	28,037
FINLAND	194,265	181,747	188,143	197,998	201,037	204,321	206,897	211,385	217,518	225,836	233,619	240,078
FRANCE	1,992,380	1,936,422	1,995,289	2,058,369	2,088,804	2,117,189	2,149,765	2,198,432	2,234,129	2,297,242	2,360,687	2,425,708
GERMANY	2,546,490	2,445,730	2,564,400	2,693,560	2,745,310	2,811,350	2,927,430	3,030,070	3,134,100	3,244,990	3,344,370	3,435,210
GREECE	241,990	237,534	226,031	207,029	191,204	180,654	178,657	177,258	176,488	180,218	184,714	187,457
HUNGARY	108,216	94,383	98,987	101,553	99,734	102,032	105,906	112,210	115,259	125,603	133,782	143,826
IRELAND	187,769	170,101	167,732	170,827	175,116	179,661	194,818	262,833	271,684	297,131	324,038	347,215
ITALY	1,109,541	1,069,323	1,072,709	1,063,763	1,031,099	1,020,348	1,032,158	1,077,590	1,113,840	1,161,878	1,202,193	1,245,331
LATVIA	24,397	18,807	17,818	20,219	22,098	22,845	23,654	24,426	25,073	26,798	29,056	30,476
LITHUANIA	32,696	26,935	27,955	31,234	33,332	34,985	36,545	37,322	38,893	42,269	45,264	48,433
LUXEMBOURG	38,129	36,977	40,178	43,165	44,112	46,500	49,825	52,066	54,867	56,814	60,053	63,516
MALTA	6,129	6,139	6,600	6,840	7,171	7,652	8,526	9,657	10,370	11,322	12,403	13,277
NETHERLANDS	647,198	624,842	639,187	650,359	652,966	660,463	671,560	690,008	708,337	738,146	774,039	812,051
POLAND	366,181	317,081	361,804	380,242	389,377	394,734	411,163	430,258	426,556	467,313	497,590	529,029
PORTUGAL	179,103	175,416	179,611	176,096	168,296	170,492	173,054	179,713	186,490	195,947	204,305	212,319
ROMANIA	146,591	125,214	125,409	131,925	133,147	143,802	150,458	160,298	170,394	187,773	204,641	223,337
SLOVAKIA	66,098	64,096	68,093	71,214	73,484	74,355	76,256	79,758	81,038	84,521	89,606	94,171
SLOVENIA	37,926	36,255	36,364	37,059	36,253	36,454	37,634	38,853	40,367	42,987	45,755	48,007
SPAIN	1,109,541	1,069,323	1,072,709	1,063,763	1,031,099	1,020,348	1,032,158	1,077,590	1,113,840	1,161,878	1,202,193	1,245,331
SWEDEN	354,881	314,638	374,695	412,845	430,037	441,851	438,834	455,495	466,267	480,026	470,673	474,148
EURO AREA 19	9,094,805	8,767,050	8,996,126	9,214,220	9,243,699	9,341,436	9,572,674	9,946,541	10,235,130	10,628,045	11,004,712	11,370,329
EU 27	10,558,816	10,080,790	10,440,060	10,738,750	10,797,981	10,925,927	11,187,730	11,636,585	11,968,321	12,474,293	12,928,021	13,386,420
ICELAND	10,949	9,426	10,332	10,889	11,459	12,064	13,390	15,680	18,646	21,705	21,795	21,603
NORWAY	317,022	278,247	323,761	358,340	396,524	393,409	375,947	347,632	333,471	353,316	367,894	360,301
SWITZERLAND	376,913	388,232	440,358	502,572	519,959	518,413	533,822	612,738	606,477	601,886	597,071	628,033
UNITED KINGDOM	1,996,698	1,737,000	1,867,396	1,912,458	2,111,708	2,098,426	2,309,785	2,640,935	2,435,055	2,363,109	2,423,737	2,523,313
AUSTRALIA	716,614	665,189	864,553	1,003,340	1,203,418	1,186,797	1,104,617	1,218,291	1,092,101	1,177,424	1,214,144	1,244,020
BRAZIL	1,152,995	1,195,168	1,666,193	1,879,455	1,918,733	1,861,913	1,848,697	1,624,348	1,622,279	1,825,999	1,596,514	1,643,375
CANADA	1,053,258	983,046	1,217,066	1,284,948	1,423,326	1,390,866	1,357,571	1,402,550	1,380,652	1,460,457	1,453,228	1,551,072
JAPAN	3,425,285	3,750,633	4,299,689	4,423,462	4,828,155	3,882,025	3,651,045	3,956,265	4,447,139	4,308,103	4,195,433	4,539,321
RUSSIA	1,129,213	876,573	1,150,273	1,469,774	1,718,786	1,726,130	1,550,050	1,228,915	1,153,480	1,393,467	1,413,703	1,518,425
SINGAPORE	131,637	139,197	180,893	200,683	229,676	231,591	236,997	277,606	287,878	302,614	316,018	332,347
SOUTH KOREA	712,088	676,758	862,991	900,304	995,040	1,032,148	1,117,289	1,321,112	1,355,237	1,437,463	1,456,883	1,467,069
TURKEY	519,673	462,174	582,260	598,077	680,248	715,744	703,188	774,941	780,307	754,782	653,133	673,883
USA	10,003,294	10,359,143	11,308,782	11,165,647	12,606,637	12,638,242	13,189,120	16,421,179	16,900,522	17,248,291	17,382,768	19,092,826

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

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
AUSTRIA	182,542	182,849	184,504	189,427	196,893	197,446	235,546	228,176	220,357	213,717	205,553	202,903
BELGIUM	215,423	215,898	218,514	225,125	231,624	234,778	237,584	241,197	248,692	257,998	265,639	275,626
BULGARIA	22,245	22,747	23,127	24,615	24,722	25,236	25,069	27,410	28,656	30,727	31,260	32,568
CROATIA	29,193	29,082	29,533	29,606	29,404	28,624	28,574	38,473	38,557	n/a	n/a	n/a
CYPRUS	13,225	12,900	13,356	13,652	13,269	12,586	11,782	11,815	12,485	13,275	13,832	14,308
CZECHIA	85,248	82,793	87,288	89,960	88,816	86,096	84,069	88,429	92,718	99,237	109,242	115,493
DENMARK	107,929	110,434	116,829	120,795	123,467	125,613	127,320	132,684	138,893	143,468	147,780	149,359
ESTONIA	9,494	8,565	8,527	9,288	9,580	10,389	10,950	11,478	12,062	12,905	14,177	15,144
FINLAND	102,989	105,651	109,946	114,338	117,658	120,734	122,027	124,026	126,402	128,985	133,641	137,616
FRANCE	1,270,429	1,273,244	1,309,194	1,334,913	1,349,088	1,343,454	1,361,555	1,377,375	1,402,360	1,433,992	1,472,424	1,524,698
GERMANY	1,630,439	1,620,463	1,658,176	1,716,055	1,758,456	1,787,379	1,834,126	1,885,030	1,946,183	2,007,597	2,080,902	2,145,770
GREECE	170,167	173,297	159,701	145,918	133,568	122,151	121,095	116,922	114,235	115,537	118,667	122,389
HUNGARY	61,214	54,980	56,876	60,290	59,640	60,350	60,365	62,242	64,813	69,835	73,347	79,667
IRELAND	98,697	91,897	88,656	84,605	87,268	87,328	88,872	92,932	98,084	104,353	109,663	117,026
ITALY	1,123,810	1,097,817	1,096,998	1,125,613	1,094,773	1,099,997	1,106,926	1,120,376	1,134,832	1,158,467	1,177,702	1,190,746
LATVIA	15,677	12,763	11,769	11,762	12,709	13,242	13,813	14,552	15,366	16,285	17,766	19,465
LITHUANIA	20,846	19,200	19,402	20,364	21,256	22,215	22,516	23,202	24,934	26,012	27,273	29,547
LUXEMBOURG	15,268	15,744	16,338	16,723	17,703	18,297	19,413	19,670	20,121	21,509	22,674	23,142
NETHERLANDS	314,637	314,278	319,080	326,136	328,811	332,165	340,237	346,509	356,594	365,354	381,022	394,865
POLAND	226,510	199,854	226,664	231,461	238,022	241,578	248,959	255,238	258,077	278,220	290,274	307,349
PORTUGAL	127,193	127,947	129,927	127,266	123,822	122,733	122,395	126,586	131,372	135,498	141,421	146,169
ROMANIA	83,296	70,123	75,653	76,350	74,436	80,815	82,180	88,113	95,907	108,326	122,044	131,939
SLOVAKIA	38,555	40,516	41,529	41,988	43,514	43,683	44,635	46,627	48,195	50,704	54,233	56,515
SLOVENIA	22,648	22,705	22,931	23,396	22,843	22,889	23,111	23,498	24,528	25,724	27,232	29,077
SPAIN	691,912	687,101	690,324	694,511	658,237	655,905	656,165	682,172	700,591	721,061	747,893	777,155
SWEDEN	169,244	158,833	184,685	204,699	220,940	227,991	223,893	225,643	232,994	238,189	234,878	237,771
EURO AREA 19	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	6,827,408	6,827,408
EU 27	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	9,391,601	9,391,601
ICELAND	5,627	4,434	4,221	4,645	5,088	5,323	5,995	n/a	n/a	n/a	n/a	n/a
NORWAY	125,414	124,848	142,225	153,901	169,302	171,917	169,171	170,217	166,475	171,695	174,560	178,991
SWITZERLAND	229,547	245,216	271,823	310,556	324,497	325,638	335,384	382,740	379,700	374,848	369,170	391,637
UNITED KINGDOM	1,320,301	1,208,909	1,280,791	1,289,739	1,440,320	1,427,027	1,557,665	1,822,092	1,642,518	1,577,244	1,641,781	1,697,471
JAPAN	2,146,644	2,478,520	2,788,359	2,899,352	3,139,706	2,478,690	2,303,396	2,443,138	2,753,443	2,633,304	2,614,463	2,810,911
TURKEY	—	317,720	402,592	414,031	465,628	498,142	492,414	536,097	538,746	519,061	n/a	n/a
USA	7,612,760	8,011,010	8,741,920	8,738,530	9,966,100	9,671,550	10,210,350	12,739,040	13,135,690	13,470,360	13,665,670	15,070,080

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 over 18

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
AUSTRIA	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	7,322,817
BELGIUM	8,472,359	8,547,467	8,625,749	8,756,344	8,820,030	8,870,350	8,905,031	8,952,757	9,012,839	9,047,019	9,089,375	9,142,017
BULGARIA	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	5,810,294
CROATIA	3,494,922	3,498,685	3,497,838	3,489,107	3,482,850	3,475,931	3,470,956	3,461,959	3,443,950	3,422,613	3,388,668	3,370,748
CYPRUS	598,457	619,004	640,785	661,878	684,689	690,884	687,113	677,766	679,378	686,783	695,662	706,661
CZECHIA	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	8,674,679
DENMARK	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	4,645,697
ESTONIA	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	1,070,375
FINLAND	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	4,459,828
FRANCE	49,720,834	50,026,691	50,289,714	50,561,775	50,783,443	51,023,819	51,422,252	51,675,217	51,855,973	52,064,447	52,247,180	52,465,841
GERMANY	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	69,421,785
GREECE	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	8,862,859
HUNGARY	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	8,061,304
IRELAND	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	3,703,238
ITALY	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	50,680,412
LATVIA	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	1,561,155
LITHUANIA	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	2,294,609
LUXEMBOURG	378,602	387,286	394,805	403,289	415,783	426,500	437,663	449,861	461,711	474,986	485,200	496,015
MALTA	325,462	330,123	334,759	337,240	340,819	346,271	353,065	362,652	372,709	381,876	396,538	413,363
NETHERLANDS	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	13,924,408
POLAND	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	31,077,952
PORTUGAL	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	8,546,942
ROMANIA	16,481,177	16,539,284	16,417,888	16,336,812	16,254,443	16,234,182	16,204,893	16,135,980	16,036,403	15,939,348	15,849,781	15,757,669
SLOVAKIA	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	4,438,462
SLOVENIA	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	1,712,175
SPAIN	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	38,600,666
SWEDEN	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	8,074,806
EURO AREA 19	270,231,250	271,743,269	272,697,912	272,236,147	273,064,508	273,827,319	275,354,521	276,197,818	277,317,471	278,053,375	278,807,106	279,823,628
EU 27	355,270,276	357,191,158	358,130,889	357,794,859	358,687,425	359,569,876	361,128,437	361,987,905	363,020,091	363,690,571	364,344,281	365,296,777
ICELAND	235,271	238,587	236,948	238,035	239,724	242,099	245,631	249,094	252,974	258,565	268,067	276,283
NORWAY	3,637,892	3,695,771	3,749,043	3,805,931	3,867,645	3,928,378	3,982,920	4,040,722	4,083,702	4,127,266	4,166,612	4,205,704
SWITZERLAND	6,143,378	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	7,014,296
UNITED KINGDOM	48,271,326	48,704,715	49,140,673	49,605,268	50,009,997	50,341,542	50,705,811	51,124,363	51,553,340	51,923,025	52,257,210	52,555,501
AUSTRALIA	16,272,163	16,656,599	16,961,804	17,201,178	17,527,242	17,864,524	18,161,511	18,442,952	18,728,480	19,030,497	19,302,601	19,579,499
BRAZIL	132,100,805	134,470,079	136,816,414	139,135,881	141,419,613	143,699,108	145,991,053	148,303,939	150,513,508	152,719,837	154,877,574	156,961,288
CANADA	26,293,160	26,690,135	27,088,323	27,397,198	27,764,999	28,137,318	28,493,536	28,764,287	29,153,465	29,547,653	30,000,836	30,469,327
JAPAN	107,040,047	107,178,346	107,341,496	107,209,965	107,115,304	107,055,131	107,028,302	107,060,042	107,070,678	107,060,114	107,022,933	106,977,929
RUSSIA	116,133,219	116,503,725	116,676,951	116,744,421	116,699,798	116,556,297	116,317,518	115,977,920	115,521,843	115,035,452	114,479,475	113,908,962
TURKEY	47,281,871	48,160,629	49,092,661	50,052,438	51,068,774	52,136,638	53,243,860	54,384,931	55,553,321	56,757,773	57,947,749	59,074,212
SINGAPORE	3,879,280	4,028,114	4,137,475	4,251,818	4,382,307	4,473,234	4,548,982	4,622,463	4,719,440	4,745,652	4,781,704	4,847,802
SOUTH KOREA	38,518,776	38,962,928	39,444,294	40,053,363	40,573,722	41,057,070	41,611,416	42,127,148	42,548,832	42,923,262	43,368,344	43,655,456
USA	228,393,195	230,993,927	233,554,189	235,994,077	238,595,009	241,135,145	243,760,867	246,341,336	248,832,452	251,020,457	252,906,846	254,697,408

Sources: *Eurostat, US Bureau of Census, World Bank*

1) Time series breaks

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

- Australia
- Brazil
- Canada
- Japan
- Russia
- Turkey
- Singapore
- South Korea

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	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
EU 27												
Bulgarian lev	1.956	1.956	1.956	1.956	1.956	1.956	1.9558	1.9558	1.9558	1.9558	1.95583	1.9558
Croatian kuna	7.356	7.300	7.383	7.537	7.558	7.627	7.658	7.638	7.560	7.44	7.410	7.440
Czech koruna	26.88	26.47	25.06	25.79	25.15	27.43	27.735	27.023	27.02	25.535	25.724	25.408
Danish krone	7.451	7.442	7.454	7.434	7.461	7.459	7.4453	7.4626	7.434	7.4449	7.4673	7.4715
Hungarian forint	266.7	270.4	278.0	314.6	292.3	297.0	315.54	315.98	309.8	310.33	320.98	330.53
Polish zloty	4.154	4.105	3.975	4.458	4.074	4.154	4.2732	4.264	4.410	4.177	4.3014	4.2568
Romanian leu	4.023	4.236	4.262	4.323	4.445	4.471	4.4828	4.524	4.539	4.6585	4.653087	4.783
Swedish krona	10.87	10.25	8.966	8.912	8.582	8.859	9.393	9.190	9.553	9.8438	10.2548	10.4468
NON-EU												
Australian dollar	2.0274	1.6008	1.3136	1.2723	1.2712	1.5423	1.4829	1.4897	1.4596	1.5346	1.622	1.5995
Brazilian real	3.2436	2.5113	2.2177	2.4159	2.7036	3.2576	3.2207	4.3117	3.4305	3.9729	4.444	4.5157
Canadian dollar	1.6998	1.5128	1.3322	1.3215	1.3137	1.4671	1.4063	1.5116	1.4188	1.5039	1.5605	1.4598
Icelandic krona*	169.33	179.76	153.78	158.98	168.89	158.29	154.31	141.38	119.15	124.209	133.206201	135.85
Japanese yen	126.14	133.16	108.65	100.20	113.61	144.72	145.23	131.07	123.40	135.01	125.85	121.94
Norwegian krone	9.750	8.300	7.800	7.754	7.348	8.363	9.042	9.603	9.086	9.8403	9.948	9.8638
Russian rouble	41.28	43.15	40.82	41.77	40.33	45.32	72.337	80.67	64.30	69.392	79.46	69.956
Singapore Dollar	2.08	2.02	1.81	1.75	1.61	1.66	1.6823	1.53	1.53	1.5588	1.5591	1.5111
South Korean won	1837.13	1666.97	1499.06	1498.69	1406.23	1450.93	1324.8	1280.78	1269.34	1279.61	1277.93	1296.28
Swiss franc	1.485	1.4836	1.2504	1.2154	1.2072	1.2276	1.2024	1.0835	1.0739	1.1702	1.1269	1.0854
Turkish lira	2.149	2.155	2.069	2.443	2.355	2.961	2.832	3.177	3.707	4.5464	6.059	6.684
UK pound sterling	0.953	0.888	0.861	0.835	0.816	0.834	0.7789	0.73395	0.856	0.88723	0.89453	0.8508
US dollar	1.392	1.441	1.336	1.294	1.319	1.379	1.2141	1.089	1.054	1.1993	1.145	1.123

YEARLY AVERAGE	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
EU 27												
Bulgarian lev	1.956	1.956	1.956	1.956	1.956	1.956	1.956	1.956	1.9558	1.9558	1.9558	1.9558
Croatian kuna	7.224	7.340	7.289	7.439	7.522	7.579	7.634	7.614	7.5333	7.464	7.4182	7.418
Czech koruna	24.946	26.435	25.284	24.590	25.149	25.980	27.536	27.279	27.034	26.326	25.647	25.67
Danish krone	7.456	7.446	7.447	7.451	7.444	7.458	7.455	7.459	7.4452	7.4452	7.4532	7.4661
Hungarian forint	251.510	280.330	275.480	279.370	289.250	296.870	308.710	310.000	311.44	309.190	318.89	325.3
Polish zloty	3.512	4.328	3.995	4.121	4.185	4.198	4.184	4.184	4.3632	4.2570	4.2615	4.2976
Romanian leu	3.683	4.240	4.212	4.239	4.459	4.419	4.444	4.445	4.4904	4.5688	4.654	4.7453
Swedish krona	9.615	10.619	9.537	9.030	8.704	8.652	9.099	9.354	9.4689	9.6351	10.2583	10.5891
NON-EU												
Australian dollar	1.7416	1.7727	1.4423	1.3484	1.2407	1.3777	1.4719	1.4777	1.4883	1.4732	1.5797	1.6109
Brazilian real	2.6737	2.7674	2.3314	2.3265	2.5084	2.8687	3.1211	3.7004	3.8561	3.6054	4.3085	4.4134
Canadian dollar	1.559	1.585	1.365	1.376	1.284	1.368	1.466	1.4186	1.4659	1.4647	1.5294	1.4855
Icelandic krona	127.480	172.730	161.950	161.490	160.930	162.200	154.850	144.390	131.010	120.540	127.890	137.280
Japanese yen	152.450	130.340	116.240	110.960	102.490	129.660	140.310	134.310	120.2	126.710	130.4	122.01
Norwegian krone	8.224	8.728	8.004	7.793	7.475	7.807	8.354	8.9496	9.2906	9.3270	9.5975	9.8511
Russian rouble	36.421	44.138	40.263	40.885	39.926	42.337	50.952	68.072	74.1446	65.9383	74.0416	72.4553
Singapore Dollar	2.076	2.024	1.806	1.749	1.606	1.662	1.682	1.5255	1.5275	1.5588	1.5926	1.5273
South Korean won	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	1276.740	1299.07	1305.32
Swiss franc	1.587	1.510	1.380	1.233	1.205	1.231	1.215	1.0679	1.0902	1.112	1.155	1.1124
Turkish lira	1.906	2.163	1.997	2.338	2.314	2.534	2.907	3.0255	3.3433	4.121	5.7077	6.3578
UK pound sterling	0.796	0.891	0.858	0.868	0.811	0.849	0.806	0.726	0.81948	0.8767	0.88471	0.87777
US dollar	1.471	1.395	1.326	1.392	1.285	1.328	1.329	1.110	1.1069	1.130	1.181	1.1195

***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 EU27 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 EU27 countries regarding the statistical treatment of loans made for renovations of existing dwellings: under some assumptions, some of these loans can be considered as consumption loans.

The conversion to EUR is based on the bilateral exchange rate at the end of the period (provided by the European Central Bank).

2. CHANGE IN OUTSTANDING RESIDENTIAL LOANS END OF PERIOD, EUR MILLION

Year-on-year changes in Table 2. It also corresponds to new residential loans advanced during the period minus repayments.

3. GROSS RESIDENTIAL LOANS TOTAL AMOUNT, EUR MILLION

Total amount of residential loans advanced during the period. Gross lending includes new mortgage loans and external remortgaging (i.e. remortgaging with another bank) in most countries. Internal remortgaging (i.e. remortgaging with the same bank) is not included, unless it is otherwise stated.

The conversion to EUR is based on the average bilateral exchange rate over the given year (provided by the European Central Bank).

Denmark: Denmark the figure does not include second homes.

Italy: Includes the total value of residential loans during the period, including new lending and remortgaging/refinancing of existing loan on same property.

Poland: The estimated value of newly granted loans was based on increases in the volume of loans to households adjusted for loan amortization and flows between the foreign currency loan portfolio and the zloty loan portfolio; the entire banking system was taken into account, including credit unions.

Spain: Total amount of loans and credits to households.

Sweden: The figures covers only gross lending by mortgage institutions. New mortgage lending from banks are not included.

4. REPRESENTATIVE INTEREST RATES ON NEW MORTGAGE LOANS, PERCENT

This series aims at providing the most representative figures on interest rates on mortgage loans in the EU 27 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.*

Czechia: Weighted average mortgage rate on loans to households for house purchase. *Source: Hypoindex until 2012; Czech National Bank from 2013.*

Denmark: Data reflects interest rates fixed up to 12 months on mortgage loans from mortgage banks.

Germany: Initial fixed period interest rate between 5 and 10 years on loans for house purchase, excluding revolving loans and overdrafts, convenience and extended credit card debt, EUR (the monthly data is based on the average of observations through the period). *Source: Deutsche Bundesbank.*

Greece: Initial fixed period interest rate up to 1 year on loans for house purchase, excluding revolving loans and overdrafts, convenience and extended credit card debt, EUR (the monthly data is based on the average of observations through the period). *Source: National Bank of Greece.*

Hungary: Weighted average rate of housing purpose residential loans with different interest rate periods. The data is the average rate over the year. *Source: National Bank of Hungary.*

Lithuania: Total initial rate fixation on loans for house purchase. *Source: Bank of Lithuania.*

Luxembourg: Initial fixed period interest rate up to 1 year on loans for house purchase. *Source: Central Bank of Luxembourg.*

Malta: Weighted average of interest rates on loans for house purchase to households and NPISH. *Source: Central Bank of Malta.*

Poland: Weighted average interest rate on housing loans. *Source: National Bank of Poland.*

Romania: Mortgage loans granted in EUR with a maturity of 10 years or more with a charged rate fixed for 1 year. *Source: National Bank of Romania.*

Spain: Initial fixed period interest rate up to 1 year on loans for house purchase, excluding revolving loans and overdrafts, convenience and extended credit card debt, EUR, (the monthly data is based on the average of observations through the period). *Source: European Central Bank.*

Sweden: Housing credit institutions' lending rates on new agreements with variable interest rates, to Swedish households (incl. NPISH) and non-financial corporations. Variable interest rates are defined as interest rates up to 3 months fixed interest rates.

United Kingdom: Weighted average interest rate on loans secured on dwellings, GBP. *Source: Bank of England.*

Iceland: Average of the lowest mortgage interest rates provided by lending institutions for indexed housing loans; these mortgage interest rates are real mortgage interest rates (nominal mortgage interest rates adjusted for CPI inflation).

Japan: Since the Japanese Fiscal Year 2003 the statistics depicted is the average rates of monthly lowest interest rates of Flat 35 of which the maturity is 21-35 years. Flat35 is a long term fixed rate mortgage which is provided by the securitization business of Japan Housing Finance Agency.

Russia: Weighted average interest rates of total new housing mortgage lending in RUB. *Source: Central Bank of Russia.*

Turkey: Weighted average interest rates for banks' loans in TYR. *Source: Central Bank of the Republic of Turkey.*

United States: Contract interest rate on 30-year, fixed-rate conventional home mortgage commitments. *Source: Federal Reserve.*

5. 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

11. 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:

EU27

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 EU27

USA: number of existing home sales

18. NOMINAL HOUSE PRICES INDICES, 2015=100

Indices computed to reflect the changes in house prices observed over the period. For Hypostat 2020 the base year has been postponed to 2015 to be in line with the dispositions followed by Eurostat in compliance with Regulation (EC) No 2015/2010). 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:

EU27

Austria: The RPPI for Vienna and for Austria excluding Vienna (regional breakdown) is a so-called "dummy index." It is calculated on the basis of the euro price per square meter for new and used condominiums and for single-family houses. The dummy index is calculated by Vienna University of Technology on the basis of data provided by the Internet platform Ametanet of the Austrian real estate software company EDI-Real. The calculation uses a hedonic regression model with a fixed structure over time. This approach may produce biased estimates if the effects of the variables change over time. *Source: OeNB.*

Bulgaria: Annual average market price index of dwellings, flats in the district centres (new flats are excluded). *Source: National Statistical Institute.*

Croatia: The average prices per m^2 of new dwellings sold.

Cyprus: The indices are based on property valuation data collected since 2006 by the contracted banks, which receive the relevant information from independent property surveyors in connection with mortgage transactions, such as housing loans, mortgage refinancing and mortgage collateral. The data, which are representative of the Cyprus property market, cover all the areas under the effective control of the Republic of Cyprus (Nicosia, Limassol, Larnaca, Paphos and Famagusta) and refer to residential properties (houses and apartments). *Source: Central Bank of Cyprus.*

Czechia: 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 foment.*

Sweden: One- and two-dwellings buildings annual average.

NON EU27

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.* The index of the latest fiscal year is the average of the monthlyl price indices between April and teh data available month(s).

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 Kingdom: All dwellings. *Source: Office for National Statistics.*

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

19. NOMINAL HOUSE PRICE INDEX – CITIES (2015=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 27

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.*

NON EU 27

Australia: Residential Property Price index. *Source: Australian Bureau of Statistics.*

Brazil: The Financed Housing Collateral Value Index – IVG-R measures the long term trend of the household's houses in Brazil. The index is calculated using the evaluation data of housing loans that are granted to natural persons and collateralized by financed real estate. The IVG-R is constructed using information from eleven Brazilian metropolitan regions : Belém, Belo Horizonte, Brasília, Curitiba, Fortaleza, Goiânia, Porto Alegre, Recife, Rio de Janeiro, Salvador e São Paulo.

Iceland: total residential property. *Source: Statistics Iceland.*

Japan: The indices are based on monthly prices for detached houses. *Source: Ministry of Land, Infrastructure, Transport and Tourism.*

Norway: *Source: Real Estate Norway.*

Turkey: *Source: Central Bank of the Republic of Turkey.*

United Kingdom: all dwellings. *Source: Office for National Statistics.*

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, 2015=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

NOTES

NOTES

HYPOSTAT
2020

A REVIEW OF EUROPE'S MORTGAGE AND HOUSING MARKETS

November 2020

EMF
FUNDING THE REAL ECONOMY