EMF

FUNDING THE REAL ECONOMY

HYPOSTAT 2023

HYPOSTAT **2023** | A REVIEW OF EUROPE'S MORTGAGE AND HOUSING MARKETS

European Mortgage Federation
September 2023

DISCLAIMER

The entire content of this publication is protected by copyright. All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any other form or by any means: electronic, mechanical, photocopying, recording or otherwise, without the prior permission of the European Mortgage Federation – European Covered Bond Council.

CONTACT DETAILS

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

Eric Hüllen
Research and Data Intern
ehuellen@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
Frans Meel
Union Professionnelle du Crédit (Febelfin)
frans.meel@febelfin.be

Daniel Kryszkiewiez
Union Professionnelle du Crédit (Febelfin)
daniel.kryszkiewiez@febelfin.be

BULGARIA
Petar Ivanov
Tsvetkova Bebov & Partners, member of Eversheds Sutherland
petar.ivanov@eversheds-sutherland.bg

CROATIA
Eric Hüllen
European Mortgage Federation – European Covered Bond Council
ehuellen@hypo.org

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

CZECHIA
Martin Kotek
Czech Banking Association
martin.kotek@mpss.cz

Jakub Seidler
Czech Banking Association
jakub.seidler@cbaonline.cz

DENMARK
Sarah Kirsten Rystrand
Finance Denmark
skr@fida.dk

ESTONIA
Kaire Husu
Luminor Bank AS
kaire.husu@luminorgroup.com

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

FRANCE
Bertrand Cartier
BPCE
bertrand.cartier@bpce.fr

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

GREECE
Calliope Akantziliotou
Bank of Greece
cakantziliotou@bankofgreece.gr

HUNGARY
Gyula Nagy
MBH Mortgage Bank Plc
nagy.gyulalaszlo@mbhbank.hu

IRELAND
Niall Faherty
Banking & Payments Federation Ireland
niall.faherty@bpfi.ie

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

LATVIA
Andrejs Semjonovs
Bank of Latvia
andrejs.semjonovs@bank.lv

LITHUANIA
Eric Hüllen
European Mortgage Federation – European Covered Bond Council
ehuellen@hypo.org

LUXEMBOURG
Eric Hüllen
European Mortgage Federation – European Covered Bond Council
ehuellen@hypo.org

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

Netherlands
Marcel Klok
ING Bank
Marcel.Klok@ing.com

Cas Bonsema
Rabobank
Cas.Bonsema@rabobank.com

Paul de Vries
Dutch Land Register
Paul.devries@kadaster.nl

Nico de Vries
ING Bank
Nico.de.Vries@ing.com

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

PORTUGAL
Bráulio Silva
Banco Montepio
braulio.silva@montepio.pt

José Miguel Moreira
Banco Montepio
josemoreira@montepio.pt

Sérgio Ribeiro Alonso
Banco Montepio
SRAlonso@montepio.pt

Bruno Nogueira Silva
Banco Montepio
bruno.nogueira.silva@montepio.pt

ROMANIA
Cristian Dragos
Alpha Bank Romania
cdragos@alphabank.ro

Ella Kallai
Alpha Bank Romania

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

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

SLOVENIA
Jelena Ćirjaković
Banka Slovenije
jelena.cirjakovic@bsi.si

SPAIN
Leyre López
Spanish Mortgage Association
leyre.lopez@ahe.es

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

ICELAND
Lúdvík Elíasson
Central Bank of Iceland
ludvik.eliasson@sedlabanki.is

Magnus Arni Skulason
Reykjavik Economics ehf
magnus@reconomics.is

NORWAY
Michael H. Cook
Finance Norway
michael.hurum.cook@finansnorge.no

SWITZERLAND
Ursina Kubli
Zürcher Kantonalbank
ursina.kubli@zkb.ch

Matthias Wüthrich
Zürcher Kantonalbank
matthias.wuethrich@zkb.ch

Remo Kübler
Swiss Bankers Association
remo.kübler@sba.ch

Darius Schlaeppi
Swiss Bankers Association
darius.schlaeppi@sba.ch

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

—

STATISTICS

AUSTRALIA
Ken Hanton
Director, Client Management & Execution
Corporate & Institutional Banking
National Australia Bank Limited
Ken.D.Hanton@nab.com.au

Robert Gallimore
Policy Executive
Australian Securitisation Forum
rgallimore@securitisation.com.au

Andrea Manson
Marketing and Operations Executive
Australian Securitisation Forum
amanson@securitisation.com.au

BRAZIL
Filipe F. Pontual
Associação Brasileira das Entidades de Crédito Imobiliário e Poupança (Abecip)
filipepontual@abecip.org.br

Leonardo Rangel
Associação Brasileira das Entidades de Crédito Imobiliário e Poupança (Abecip)
leonardo@abecip.org.br

CANADA
Daniel Gee
Canada Mortgage and Housing Corporation (CMHC)
dgee@cmhc-schl.gc.ca

JAPAN
Hiromi Saeki
Japan Housing Finance Agency (JHF)
Saeki.7mk@jhf.go.jp

Chiharu Honda
Japan Housing Finance Agency (JHF)
Honda.5rd@jhf.go.jp

RUSSIA
Tatiana Polidi
The Institute for Urban Economics
polidi@urbaneconomics.ru

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

SOUTH KOREA
JuHwa Jung
Korea Housing Finance Corporation
juhwa.jung@hf.go.kr

SangSoo Park
Korea Housing Finance Corporation
sangsoopark@hf.go.kr

HyunWoo Kim
Korea Housing Finance Corporation
jkuhrwn@hf.go.kr

JungIn Song
Korea Housing Finance Corporation
1827@hf.go.kr

SunYoung Lee
Korea Housing Finance Corporation
1996@hf.go.kr

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

CONTRIBUTORS TO HYPOSTAT ARTICLES

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

Jennifer Johnson
European Mortgage Federation – European Covered Bond Council
jjohnson@hypo.org

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

Eric Hüllen
European Mortgage Federation – European Covered Bond Council
ehuellen@hypo.org

Mat Santamouris
Distinguished Professor
Anita Lawrence Chair of High Performance Architecture
University New South Wales Sydney
m.santamouris@unsw.edu.au

Antonio Farina
S&P Global Ratings
antonio.farina@spglobal.com

Marta Escutia
S&P Global Ratings
marta.escutia@spglobal.com

Andreas A. Jobst
Head of Macroeconomic and Capital Markets Research
Allianz SE
andreas.jobst@allianz.com

Pablo Espinosa Uriel
Investment Strategist
Allianz SE
pablo.espinosa-uriel@allianz.com

Markus Zimmer
Allianz SE
Senior Economist (ESG)
markus.zimmer@allianz.com

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.

Foreword

The capacity of our industry to proactively analyse trends, discuss solutions and agree on best practices is the essence of securing financial stability while global cooperation is preventing market disruptions. All the major parameters and building blocks of the housing market are changing rapidly and unpredictably: the regulatory framework, inflation, demographics, geopolitical risk, digitalisation and Environmental, Social & Governance (ESG) dynamics to name just few of them. In this context, the European Mortgage Federation-European Covered Bond Council (EMF-ECBC) stands ready to play its role as the Industry think-tank and market catalyst supporting the transition to a greener future. Certainly, we are still in the middle of the long journey towards building a more sustainable European future against the backdrop of a global scenario, which for some could be defined as “the perfect storm”.

Lenders and other financial stakeholders are operating, on a daily basis, in a new market environment characterised by worldwide, rapid and drastic restrictive monetary policies, combined with high inflation and unprecedented geopolitical risks. Moreover, the completely new ESG and macroprudential regulatory landscape is reshaping the retail and funding strategies of the entire European banking sector. In this changing environment, it is important that well-functioning capital markets channel private capital resources efficiently into satisfying real economic needs for families and citizens, and thereby promote the single market idea by providing real tangible responses to consumer expectations in all jurisdictions.

Against this background, it is of paramount importance to secure global cooperation and political leadership with a common lighthouse project which overarches the diversity of European citizens, markets, cultures and traditions. The European regulatory road map provides transparency and a common trajectory for the construction of a new market ecosystem based on shared values, best practices, and civil rights.

In a nutshell, we can say that the spaces where we live are the essence of the NextGenerationEU architecture, which aims at revisiting the way we live in our countries, cities, neighbourhoods and homes. The cities where we live are also the places where our history is changing, where free markets, trade, citizens mobility and civil rights became fundamental benchmarks for our societies and communities.

A common financial architecture and free flow of resources have acted as a social and cultural lift, which, over the centuries, has allowed societies to transform challenges into opportunities, enabling change towards a better future. How could we imagine the Renaissance without the contribution of the bankers like the Fuggers or the Medici, or a Paris of the "Belle epoque” without Haussmann and the “obligations foncières”, or a Germany without Frederick the Great and the “Pfandbriefe”.

Looking towards a more sustainable world, we all recognise that the levels of urban regeneration and home retrofitting required will need massive private and public investments, which can only be enabled by the creation of a new financial ecosystem specifically designed to facilitate and support citizens and public authorities.

The housing market is a central means to drive integration and social stability in villages, towns, cities, regions and countries across Europe, and at a global level. Indeed, the hope for a better future and moreover, the microeconomic incentives to access affordable and sustainable housing are the basis for securing macroeconomic financial stability and social integration via an ecosystem where no one is left behind. Financial markets act as mechanisms for the transmission of fiscal and monetary policies but, above all, to change the mentalities of economic actors and individuals. There is no willingness amongst citizens to mobilise and seek to change their living conditions without the hope to secure a better future. European citizens’ freedom of movement, combined with the implementation of a single market, is the key to long lasting stability and peace, while ensuring the uniqueness of each individual Member State.

Housing and mortgage markets are key drivers for the building of a unified Europe by way of financing loans, facilitating affordability and retrofitting of buildings, all of which promotes citizens’ social integration in their local communities. Owning a property and settling down in a local community makes people feel at home in areas that were previously unknown and thereby connects people to strangers. The EMF-ECBC remains committed to acting as a market think tank and catalyst in supporting the goals and achievements of the NextGenerationEU goals.

An unstable geopolitical and macroeconomic environment combined with the uncertainty of upcoming central bank decisions are presenting the mortgage credit industry with a more volatile context in which to operate. The reaction of consumers could be a reluctance towards undertaking new financial investments while the purchasing power of households is already under pressure from rising consumer prices and savings are losing value in real terms. Nevertheless, the high level of uncertainty makes the long-term financial strategies of lenders, investors and borrowers more important than ever, which places further attention on the quality for improved standards and increased transparency in the mortgage and covered bond market.

Regarding Europe’s demographic outlook, it is evident that our continent is undergoing profound changes, which will undoubtedly affect how Europeans consider housing and mortgages in the coming years. As population growth has slowed significantly and migration is no longer compensating for the decrease in the negative natural change of the EU population, especially in the central and eastern parts of Europe, society is facing serious challenges. The changes in demographics and in the social structure of our society is going to challenge and disrupt the the present model of residential living and challenge the housing market to offer innovative solutions. Amongst other things, the main analytical article of Hypostat 2023 looks to highlight these demographic developments and contrast them with the development of Europe's building stock.

Furthermore, Hypostat 2023 attempts to shed light on the topic of mortgage market developments, including the key socio-economic and macroeconomic aspects. By not approaching market data in a vacuum and including broader influences, patterns are contextualised and can be related to more microeconomic trends, even at a country level. Therefore, Hypostat gives the stage to our national experts who are able to speak on behalf of their communities and help the audience to understand how housing and market developments influence social patterns in Europe and further afield.

Hypostat is the EMF's flagship report and is part of a combined effort by the EMF-ECBC to deliver a comprehensive analysis of the state of play of mortgage and housing markets, building on and complementing the ECBC Fact Book. In this latter publication, covered bond experts seeks to identify and assess the key drivers of developments in the covered bond space over the past 12 months, providing market perspectives, analysis and data from 36 countries, covering over 95% of outstanding covered bonds. These experts share their views on the key market and legislative developments that have occurred over the past year, the best practices that have emerged, and address issues which have come to the fore such as digitalisation and sustainability, including both the social and green dimensions. Covered bond market developments are by no means disconnected from the broader mortgage space. On the contrary, covered bonds are anti-cyclical, long-term financing instruments that help fund around two-thirds of all mortgage lending in Europe. Thus, the changes taking place on the retail side of the mortgage business will surely have an impact on the covered bond side, and vice-versa. As the market environment is changing rapidly, it is becoming ever more important to combine and enlarge the view to both sides of the market. Rising interest rates, a changing price environment for housing and new green challenges are all increasing the pressure to provide a nuanced and complete picture. Both reports, the ECBC Fact Book and the EMF Hypostat, are seeking to meet this challenge and are complemented by the publication four times per year of the EMF Quarterly Reviews, which provide a more regularly updated picture.

In the light of the shift towards a more energy efficient economy, the EMF-ECBC and its members are taking responsibility for the role that the market can play here. The Energy Efficient Mortgages Initiative (EEMI), which seeks to optimise customer journeys to increase the energy efficiency of their homes, and the Energy Efficient Mortgage Label (EEML) (see below) are the main initiatives of the EMF in this regard, laying the foundations from which to fund a socially desirable housing future. Through these initiatives, mortgage lending institutions are at the forefront of efforts to finance the transition towards a zero-carbon economy. Actions to curtail energy consumption and CO2 emissions are becoming increasingly urgent, more so if we consider the dramatic increases in energy prices since the first quarter of 2022. Mortgage lenders can help drive the green transformation of the European housing stock by supporting the implementation of energy efficient financial products and stimulating new renovation initiatives, whether national or regional.

The Energy Efficient Mortgage Label (EEML), launched in February 2021 with the support of the European Commission, is a quality instrument that allows for the transparent identification of energy efficient mortgages in banks' mortgage portfolios by market stakeholders and its delivery is a key component of the broader EEMI. Moreover, the Label is a catalyst for consumer demand and a driver of the qualitative upgrade of the energy profile of lending institutions' portfolios, which translates into enhanced asset quality. Through the Harmonised Disclosure Template (HDT), the Label provides information on the portfolios of energy efficient loans as assets to be included in green (covered) bonds, allows for enhanced evaluation and tracking of their financial performance relative to alternatives, and provides greater transparency regarding climate risks and resilience. At the time of writing, the EEML brings together 34 financial institutions from 14 different jurisdictions, covering 34 labelled products.

The labelling process and the broader context for the development of the EEMI and EEML initiatives are the topic for one of this year's Hypostat standalone articles, which sheds light on the most recent work of the EMF-ECBC in these areas. All in all, the EMF-ECBC's expertise and think-tank approach to market questions helps deliver solid insights into the mortgage market, while setting standards and developing solutions that improve the market. One of the most recent developments of this approach is the work to build an online data-platform to present and provide the EMF-ECBC data in an interactive and appealing way, ready to be used by our stakeholders. Indeed, data based scientific evidence can provide vital scientific weight in policy discussions and direct access to this information via our website will give us the opportunity to offer significant added value to our members, stakeholders and the economy and therefore society as a whole. The EMF-ECBC looks forward to presenting the results of this initiative in the near future.

Hypostat 2023 brings together the efforts of over 30 contributors, commenting on an annual data series of 30 indicators, covering the 27 Member States of the European Union plus an additional 12 jurisdictions beyond the EU's borders. Besides the country chapters of the EU27 Member States, which make up the bulk of the publication, Hypostat includes specific articles on the UK, Iceland, Norway and Switzerland. These chapters offer the most comprehensive and accurate source of data available on the markets covered and outline developments observed over the past year. To contextualise the single country developments, Hypostat 2023 also presents an analytical article covering the most recent macroeconomic patterns and key changes in mortgage and housing markets at a condensed level.

Finally, the 2023 edition of Hypostat includes four standalone articles focusing on key market developments:

- Prof. Mat Santamouris elaborates on the magnitude of urban climate change and possible proposals to counterbalance urban heat;
- Allianz SE outlines recent developments in the European housing markets and provides implications on the energy efficiency renovations of our building stock;
- S&P Global examine the role of covered bonds and housing finance in emerging markets; and
- The EMF-ECBC Secretariat presents an overview of the Energy Efficient Mortgages Initiative and the steps it is taking towards establishing a new ecosystem to supporting the transition economy.

On behalf of the EMF Research & Data Committee and its Chairman, Mr Gyula Nagy, who coordinate the preparation of each year's report, we would like to sincerely thank all contributors for making the publication of Hypostat 2023 possible.

We look forward to engaging with our audience and we remain at your disposal for any questions.

Luca Bertalot, EMF-ECBC Secretary General

MACROECONOMIC SITUATION

- In 2022, EU27 GDP grew by 3.5%, pointing to a certain economic cooling down compared to 2021 (5.4% GDP growth), when recovery from the global health crisis was observable. By end 2022, economic fundamentals in Europe had come under strain as a result of increasing energy and consumer prices and a significant degree of political uncertainty. Most EU27 Member States saw their GDP levels rise at a slower pace compared to 2021, except for Estonia, where GDP decreased.
- The Euro area recorded a growth rate of 3.4%, supported by growth in the external balance of goods and services and gross fixed capital formation in the construction sector and by private consumption.
- Unemployment levels decreased in every EU27 Member State, except for Romania where it remained stable. However, levels have progressed at different paces across Europe, closing the year with a rate of 6.2% in the EU27 and 6.8% for the Euro area, respectively.
- EU27 public spending increased by 5% in 2022, reaching EUR 7.9 tn. In the meantime, total public sector debt relative to GDP fell by -4 pps, resulting in an 84% ratio by the end of 2022.
- Inflation stood at 8.3% in the Euro area by year end 2022, the highest rate for over 20 years and well above the target inflation rate of the ECB. However, inflationary developments varied across Hypostat jurisdictions, although the increase in consumer prices was widespread. The ECB started to increase the policy rate from Q3 2022 to reach 2.5% at year end.

HOUSING MARKET

- The European housing market also showed signs of stagnation, in line with the general macroeconomic trends. However, new investment in buildings, measured in terms of gross fixed capital formation in the dwellings sector, increased on an aggregate level in the EU27 by 11% y-o-y.
- Residential construction activity continued to increase during the course of the year, peaking in February. Towards the end of the year construction activity slowed down significantly, leading to a slight decrease in December. Business confidence in the construction sector moved in line with residential construction activity, with high confidence levels at the beginning of the year which steadily decreased during the course of 2022, with a negative peak in September.
- On average, the total number of building permits issued decreased by 6.5% in the EU27, for a total amount of 1.67 mn permits, after a significant increase in 2021 of 11.2%. Over the last 10-year period (2013-2022), the number of building permits issued in the EU overall grew by almost 40%.
- In 2022, residential transactions decreased by over 4% in the EU27 and by almost 16% in the UK, which marks a clear change with respect to 2021 when the figures increased by 17% and 41% for respectively the EU and UK.
- The European mortgage and housing finance sectors face three key challenges. Firstly, from an environmental standpoint, European residential dwellings must adapt to rapidly changing climate conditions and comply with new building energy performance requirements, to contribute towards meeting the EU's climate goals. The environmental standpoint is elaborated further in two articles in Hypostat 2023. Secondly, the demographic changes in Europe, which depict different dynamics in different regions and cities. This leads to heterogenous challenges from areas facing demographic expansion and house price increase to areas where people leave and house prices fall. There are though also other surprising situations. Lastly, rising financing costs, driven by central banks' efforts to counter rising inflationary pressure, puts pressure on the affordability of housing and impacts transactions.
- The average, unweighted EU27 house price index grew further by 11.3% in 2022, after a 11.1% increase in 2021, continuing a trend that began in 2013.
- Between 2013 and 2022, house prices increased at very different rates in the majority of the Hypostat sample, yet some southern European countries diverged from this latter trend, as will be explained in the Report, with house prices decreasing on average over the course of a decade.
- Regarding price developments in European capitals, the premium borrowers pay for dwellings in the capital – fell in 2022: overall house prices in the capitals grew by 10.6%, 0.7 pps less than the HPI of their respective countries as a whole. However, the picture is mixed, with some countries still recording higher capital house price rises than the country average.
- The general house price development was even more diverse in 2022 than in previous years, regarding both entire countries, as well as their capitals.

MORTGAGE MARKETS

- Close to 70% of the EU27 population were homeowners in 2022, representing a slight decrease of 0.8 pps from 2021 and -1.9 pps from the peak in 2012. Furthermore, 24.7% of European households reported having a mortgage or similar financial product.
- Over the last year, the proportion of European homeowners with a mortgage decreased by around 1.4 pps, while over a ten-year period it decreased by 1.2 pps. Overall, the share of mortgage holders remained relatively stable at around 25%, although there are significant variations across the European Member States.
- A European adult has an average mortgage loan of more than EUR 18,433, an increase of 9% from 2021. Luxembourg continues to have the highest mortgage debt per capita at over EUR 85,000.
- Adjusting the average mortgage per capita to the proportion of homeowners with mortgages shows that the average mortgage loan for mortgage holders amounts to more than EUR 66,000 with Luxembourg, Denmark, Sweden and Germany reporting over EUR 100,000 outstanding per mortgage holder.
- In 2022, the volume of outstanding mortgage loans in the EU27 surpassed EUR 6.7 tn, a 3.6% y-o-y increase. Adding the UK, Norway and Iceland to the stock, the figure reached EUR 8.9 tn outstanding, a new all-time high.
- The EU mortgage market is dominated by a handful of countries: Germany, the UK, France, the Netherlands, Spain, and Sweden, which considered altogether, represent more than 75% of the outstanding mortgage market of the EU27 and UK.
- The development of average European interest rates on mortgages interrupted the downwards trend which has been observed since the GFC. Average unweighted EU27 interest rates on mortgages stood at 3.11%, an increase of 1.09 pps compared to 2021. In the UK, the weighted interest rate stood at 2.56%, which was an increase of 0.45 pps.
- The preference for fixed or floating mortgages varies across the EU27, in the absence of a common tradition in terms of lending or borrowing and as a result of differences in national credit frameworks.
- Fixed rate mortgages are more common in France, Belgium, Croatia and the Netherlands together with Czechia, Denmark and Spain. Lenders in Bulgaria, Finland, Cyprus, LithuaniaIn the UK, Estonia or Norway almost exclusively offer variable interest rates.

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 2023", focuses on developments that took place in 2022, a year marked by economic constraints as a result of increasing energy and consumer prices and a significant degree of political uncertainty. At the same time, however, the trend of recovery from the COVID-19 pandemic was still discernable in economic developments.

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:

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

On the Magnitude of Urban Climate Change, its Impact on Energy, Health, Productivity, Vulnerable Population, Economy and Environmental Quality. Heat Mitigation and Adaptation Potential and Proposals to Counterbalance Urban Heat.

By M. Santamouris, UNSW, Sydney, Australia

INTRODUCTION

Cities exhibit a higher temperature than the surrounding rural and suburban spaces. The phenomenon is known as urban overheating and is due to the positive thermal balance of cities compared to their surrounding areas (1). There are more than 13,000 cities presenting overheating problems, and more than 1.7 billion people living under serious overheating conditions (2). The mean magnitude of urban overheating in the world cities is varying between 4 to 6°C, while the maximum temperature increase can be as high as 11°C (3).

Higher urban temperatures affect the quality of human life considerably (4). In particular, they rise the energy consumption for cooling purposes, increase the peak electricity demand and oblige power utilities to install additional power plants that operate just for few days per year, increasing the cost of electricity considerably. Urban overheating also decreases the performance of thermal and nuclear power plants, exacerbates urban pollution and in particular the concentration of ground level ozone, surges the magnitude of heat related mortality and morbidity and affects mental health, decreases human productivity and seriously affects the survivability of low income and vulnerable urban population (5).

The development and implementation of advanced materials to be used in cities and urban buildings in combination with well-designed additional greenery systems is found to contribute towards a decrease of the peak urban temperature of up to 4°C. This achievement can lead to a reduction of the energy consumption for cooling purposes by 40% on average, improve the indoor and outdoor thermal comfort considerably and enhance resilience, while at the same time decrease heat related mortality by at least 30% (6,7).

Climatic forecasts predict a serious increase of the minimum temperature of cities, up to 4°C, as a result of the synergetic influence of global and regional climate change, (8). Further increase of the urban temperatures is expected to cause a tremendous increase of the energy, environmental, health and economic problems at the city scale.

It is well accepted that current policies relative to the built environment are still falling short of the Paris objectives. Current policies both in the developed and developing countries are not sufficient to ensure the required levels of decarbonisation and the climatic improvement of the world cities. Development and implementation of innovative financial and social tools setting the minimization of the magnitude of urban overheating as an objective, are required.

IMPACT OF URBAN OVERHEATING

ENERGY IMPACT

Urban overheating increases the cooling energy consumption of buildings. It is estimated that the mean urban energy penalty induced by the increased urban temperatures is approximately 0.73 ±(0.64) kWh/m^2/C, while the average annual global energy penalty per person is approximately 230 ±(120) kWh, and the average annual global energy penalty per person and degree of temperature increase is approximately 78 ±(47) kWh (9).

Higher urban temperatures raise the peak electricity demand during the cooling period. It is calculated that the average power penalty and the corresponding additional electricity demand induced by urban overheating is close to 21 Watts (± 10.4) per degree of temperature increase and per person (10). In parallel, overheating affects the generation capacity of the thermal and nuclear power plants. It is estimated that an increase of the ambient temperature by 1°C, induces a reduction of the power production of nuclear and thermal power plants by 0.6% and 0.8% respectively (11), while it is the main source of major grid failure events. It is characteristic that while the major electrical grid failure events in USA in 2015 were close to 45, by 2020 they had increased to 125 (12). Additionally, the price of electricity is seriously affected during extreme heat events. During the 2022 heat wave in France, because of the serious rise of the river's temperature, the operational capacity of the nuclear power plants was reduced considerably resulting in day-ahead baseload power prices about 10 times higher than the prices between 2017 to 2021 (13).

Forecasts of the urban climatic conditions for the next 20 years considering several emission scenarios show that the minimum temperature of cities may increase up to 4°C (14), resulting in a very serious increase of the human exposure to heat waves and ground level ozone (15,16). Such an important temperature increase is foreseen to skyrocket the cooling energy consumption. It is expected that by 2050, the energy consumption for cooling may increase between 250 and 1,500% compared to the current levels as a function of specific technological, economic and social developments (17).

ENVIRONMENTAL IMPACT

The increase of the ambient temperature in cities affects the concentration of harmful pollutants and especially of the toxic and oxidant ground level ozone, leading to potentially serious human respiratory and cardiovascular problems.

High ambient temperatures accelerate the formation of ozone precursors. In particular, the reaction kinetics of volatile organic compounds and NOx's photochemically combined to generate ground-level ozone speeds up with increased ambient temperature (18).

Apart from the important increase of the ground level ozone, overheating increases the emissions of pollutants by power plants per degree of temperature increase: 3.32%/ °C ± 0.36%/ °C increase in CO 2 emissions, 3.35%/°C ± 0.50%/°C increase in SO_2 emissions, and 3.60%/ °C ± 0.49%/ °C increase in NOX emissions (19).

IMPACT ON HEALTH

Human exposure to high ambient temperatures can impact the human thermoregulatory system and results in increased health problems, especially in higher heat related mortality and morbidity (20). It is reported that the levels of heat-related morbidity increase between 0.05 and 4.6% on average per degree of temperature increase, while during heat waves it ranges between 1 and 11% (4). Moreover, Heat Related Mortality (HRM) increases as a function of demographic, socioeconomic and biophysical factors determining the magnitude of deprivation and vulnerability in cities compared to suburban and rural zones (21). Analysis of several studies has shown that living in the warmer neighbourhoods of a city causes almost 6% higher risk of mortality as opposed to living in the cooler neighbourhoods, while living in less vegetated urban areas presents 5% higher mortality risks than in the greener urban districts (22).

MITIGATION OF URBAN OVERHEATING

To face the problem of extreme urban temperatures and counterbalance the impact of urban overheating, innovative efficient heat mitigation technologies have recently been developed and implemented at the city scale.

Innovative mitigation technologies can decrease the temperature of cities substantially (23). Heat mitigation technologies include photonic passive day time radiative coatings and surfaces, reflective and fluorescent surfaces, appropriate green infrastructure integrated at the building façade, roof and urban structures, evaporative systems, solar control devices and systems linked with low temperature heat sinks (24).

Photonic, passive day time radiative materials enable sub-ambient cooling under direct sunlight due to the combination of very high emissivity in the mid-infrared atmospheric window and close-to-unity solar reflectance. This passive technology offers considerable benefits in terms of urban heat mitigation, indoor comfort, and cooling energy conservation (25). Estimations have shown that the implementation of passive day time radiative materials at the urban scale can decrease the peak temperature of cities up to 4.5°C (26). Fluorescence-based materials can also offer a very high mitigation potential due to their ability to re-emit a portion of the absorbed photons (27).

Increase of the green infrastructure in a city contributes to mitigate urban heat through solar control and evapotranspiration. Greenery must be properly designed to avoid the serious decrease of evapotranspiration during heat waves and to minimize the emitted harmful BVOC's (28). Additional greenery can decrease the peak day and night urban temperatures up to 1°C and 3°C respectively (29).

FINANCIAL TOOLS TO PROMOTE HEAT MITIGATION

Setting as a goal minimum urban overheating and pollution involves limiting the strength of warming and polluting sources and increasing the strength of urban heat sinks to balance the urban heat budget. Achieving a zero urban thermal and pollution budget requires:

- Changes in the way we design, build and operate urban buildings, spaces and infrastructures and transition to less warming and polluting patterns and policies.
- Assessment and control of the magnitude of overheating and pollution caused by selected major urban activities. Liable entities exceeding the threshold and causing urban warming must pay a price for every warming or pollution unit, shortfall cost, or they need to surrender the appropriate number of allocated units.
- Put a value on the urban mitigation and adaptation capital that limits the strength of local climate change and environmental quality.

It is critical to value urban overheating with liquidity in order to accelerate urban cooling and finance urban heat mitigation and adaptation. The development of a voluntary Urban Warming Market could bring urban mitigation and adaptation investments to the market sooner and make them more affordable. The scheme will bring new sustainable urban business, will boost profits, and will skyrocket the investment of new green capitals in cities.

An Urban Green Financing Scheme should increase the level of financial flows from the public, private and not-for-profit sectors to projects aiming to mitigate urban overheating and promote urban sustainable development priorities. The Scheme may include, among others:

- **Urban Green Bonds:** To finance Urban Mitigation and Adaptation Projects and the overall transition of Urban Climate Change. Standards should extend eligibility to green urban development projects.
- **Sustainable Real Estate:** Green Properties are very attractive financially and comprise low risk investments. Inclusion of proper performance indicators, green labels and urban benchmarking schemes towards urban climate change, is a requirement.
- **Microfinance:** Microfinance of low-income individuals or groups.
- **Financing Urban Business-led Innovation:** To accelerate growth beyond the state of the art on urban mitigation and adaptation and make inclusion of such projects more "affordable" by reducing the cost of the corresponding products and services.

The Scheme may include among other:

- **Urban Public Private Partnerships:** Through U-PPP major urban mitigation and adaptation projects can be financed, developing sustainable infrastructures and services to more urban citizens while they can allow for better allocation of risk between public and private entities. Public authorities can provide urban land and infrastructures offering attractive commercial opportunities for the private sector. In parallel, according to S&P Global Ratings' research:

  '60% of S&P 500 companies own assets that are at a "high risk" from the physical effects of climate change', and most of the assets are in cities. Thus, there is a serious incentive for the private sector to invest to decrease the risk.

- **Investments for Development of Large Scale Urban Mitigation and Adaptation Projects:** To support developing and transitioning economies to attract and generate more and better investments for large scale green urban projects promoting urban climate transition.

SOME CONCLUSIONS

The serious heterogeneity of the quantitative and qualitative conclusions drawn by the existing heat mitigation studies can be mainly attributed to the differentiation of the synergetic association of energy, pollution, health and vulnerability in the considered cases. The need to adopt a more extended and interdisciplinary frame for impact studies considering all possible synergies is quite evident.

Studies on the impact of overheating on energy, pollution, vulnerability and health provide knowledge on the specific impact on energy consumption, peak electricity, efficiency of the power plants, concentration of ozone, emission of power plants, vulnerability and health. While the provided information is rich in quantified data, it is highly fragmented and fails to consider the problem of the overheating impact in an integrated and holistic way.

Investing and Counterbalancing the Urban Climate Change is the Next Productivity Engine to Drive Growth.

REFERENCES

1. M. Santamouris , *Minimizing Energy Consumption, Energy Poverty and Global and Local Climate Change in the Built Environment Minimizing to Zero the Building Sector*, Published by Elsevier (2018)
2. Tuholske C, Caylor C, Funk C, Verdin A, Sweeney S, Grace K, et al. 2021. *Global urban population exposure to extreme heat*. PNAS 118(41):e2024792118
3. M. Santamouris. 2015. *Analyzing the heat island magnitude and characteristics in one hundred Asian and Australian cities and regions*. Sci. Total Environ. 512–13:582–98
4. M. Santamouris, *Recent progress on urban overheating and heat island research. Integrated assessment of the energy, environmental, vulnerability and health impact. Synergies with the global climate change*. Energy and Buildings, 2020. 207: p. 109482.
5. M. Santamouris,, R. Paolini, S. Haddad, A. Synnefa, S. Garshasbi, G. Hatvani-Kovacs, K. Gobakis, K. Yenneti, K. Vasilakopoulou, J. Feng, K. Gao: Heat Mitigation Technologies can improve sustainability in Cities. *An holistic experimental and numerical impact assessment of urban overheating and related heat mitigation strategies on energy consumption indoor comfort vulnerability and heat related mortality and morbidity in cities*. Energy and Buildings, Volume 217, 15 June 2020, 110002
6. M. Santamouris, A. Synnefa, and T. Karlessi, *Using advanced cool materials in the urban built environment to mitigate heat islands and improve thermal comfort conditions*. Solar Energy, 2011. 85(12): p. 3085-3102.
7. M. Santamouris, *Innovating to zero the building sector in Europe: Minimising the energy consumption, eradication of the energy poverty and mitigating the local climate change*, Solar Energy Volume 128, April 2016, Pages 61–94
8. K. Oleson: *Contrasts between Urban and Rural Climate in CCSM4 CMIP5 Climate Change Scenarios*, Journal of Climate, 2012, DOI: 10.1175/JCLI-D-11-00098.1
9. M. Santamouris : *On The Energy Impact of Urban Heat Island and Global Warming on Buildings*, Energy and Buildings, Volume 82, October 2014, Pages 100-113, 2014
10. M. Santamouris, Cartalis C, Synnefa A, Kolokotsa D. 2015. *On the impact of urban heat island and global warming on the power demand and electricity consumption of buildings – a review*. Energy Build. 98:119–24
11. Bartos M, Chester M, Johnson N, Gorman B, Eisenberg D, et al. 2016. *Impacts of rising air temperatures on electric transmission ampacity and peak electricity load in the United States*. Environ. Res. Lett. 11(11):114008
12. Brian Stone, Jr., Carina J. Gronlund, Evan Mallen, David Hondula, Marie S. O'Neill, Mayuri Rajput, Santiago Grijalva, Kevin Lanza, Sharon Harlan, Larissa Larsen, Godfried Augenbroe, E. Scott Krayenhoff, Ashley Broadbent, and Matei Georgescu: *How Blackouts during Heat Waves Amplify Mortality and Morbidity Risk*, Env Research and Technology, 2023
13. Bloomberg. 2022. Bloomberg Green Newsletter. New York: Bloomberg. https://www.bloomberg.com/green
14. Lei Zhao, Keith Oleson, Elie Bou-Zeid, E. Scott Krayenhoff, Andrew Bray , Qing Zhu, Zhonghua Zheng , Chen Chen and Michael Oppenheimer: *Global multi-model projections of local urban climates*, Nature Climate Change | VOL 11 | Februar 152 Y 2021 | 152–157 |
15. Yuwei Wang, Na Zhao, Chaoyang Wu, Jinling Quan, Mingxing Chen: *Future population exposure to heatwaves in 83 global megacities*, Science of The Total Environment, Volume 888, 25 August 2023, 164142
16. Xiaoyan Jiang, Christine Wiedinmyer, Fei Chen, Zong-Liang Yang, and Jeff Chun-Fung Lo: *Predicted impacts of climate and land use change on surface ozone in the Houston, Texas, area*, JOURNAL OF GEOPHYSICAL RESEARCH, VOL. 113, D20312, doi:10.1029/2008JD009820, 2008
17. M. Santamouris : *Cooling of Buildings. Past, Present and Future*, Energy and Buildings, 128 (2016) 617–638, 2016
18. Reid CE, Snowden JM, Kontgis C, Tager IB. 2012. *The role of ambient ozone in epidemiologic studies of heat-related mortality*. Environ. Health Perspect. 120(12):1627–30
19. P. Meier , T. Holloway , J. Patz , M. Harke , D. Ahl , D. Abel , S. Schuetter , S. Hackel , *Impact of warmer weather on electricity sector emissions due to building energy use*, Environ. Res. Lett. 12 (2017) 064014
20. Patz JA, Campbell-Lendrum D, Holloway T, Foley JA. 2005. *Impact of regional climate change on human health*. Nature 438(7066):310–17
21. Smargiassi A, Goldberg MS, Plante C, Fournier M, Baudouin Y, Kosatsky T. 2009. *Variation of daily warm season mortality as a function of micro-urban heat islands*. J. Epidemiol. Community Health 63(8):659–64
22. Schinasi LH, Benmarhnia T, De Roos AJ. 2018. *Modification of the association between high ambient temperature and health by urban microclimate indicators: a systematic review and meta-analysis*. Environ. Res. 161:168–80
23. M. Santamouris, L. Ding, F. Fiorito, P. Oldfield, Paul Osmond, R. Paolini, D. Prasad, A. Synnefa : *Passive and active cooling for the outdoor built environment – Analysis and assessment of the cooling potential of mitigation technologies using performance data from 220 large scale projects*, Solar Energy, Volume 154, 15 September 2017, Pages 14-33

24. H. Akbari, C. Cartalis, D. Kolokotsa, A. Muscio, A. L. Pisello, F. Rossi, M. Santamouris, A. Synnefa, N.H. Wong, M. Zinzi: *Local Climate Change and Urban Heat Island Mitigation Techniques – The State of the Art*, Journal of Civil Engineering and Management, 22 (1), pp. 1-16,2016

25. Feng J, Khan A, Van Doan Q, Gao K, Santamouris M. 2021. *The heat mitigation potential and climatic impact of super-cool broadband radiative coolers on a city scale*. Cell Rep. Phys. Sci. 2(7):100485

26. Ansar Khan, Samiran Khorat, Quang-Van Doan, Rupali Khatun, Debashish Das, Rafiq Hamdi, Laura Carlosena, Mattheos Santamouris, Matei Georgescu, and Dev Niyogi : *Exploring the meteorological impacts of surface and rooftop heat mitigation strategies over a tropical city*, Journal of Geophysical Research – Atmospheres, 128, e2022JD038099. https://doi.org/10.1029/2022JD038099

27. Garshasbi S, Huang S, Valenta J, Santamouris M. 2020. *Can quantum dots help to mitigate urban overheating? An experimental and modelling study*. Sol. Energy 206(Jan.):308–16

28. M. Santamouris, G. Ban – Weiss C. Cartalis, C. Crank, D. Kolokotsa, Tobi Eniolu Morakinyo , A. Muscio, Edward Ng, P. Osmond, R. Paolini, A.L. Pisello, F. Rossi, D. Sailor, A. Synnefa ,H. Taha , H. Takebayashi, M. Zinzi , J. Zhang, Zheng Tan: *Progress in Urban Greenery Mitigation Science – Assessment Methodologies Advanced Technologies and Impact on Cities*. Journal Civil Engineering and Management. 2018 Volume 24 Issue 8: 638–671, 2018

29. M. Santamouris, Paul Osmond: *Increasing Green Infrastructure in Cities-Impact on Ambient Temperature, Air Quality and Heat Related Mortality and Morbidity*, Buildings, 2020, 10, 233; doi:10.3390/buildings10120233

Europe's Green Renovation Wave under Threat?

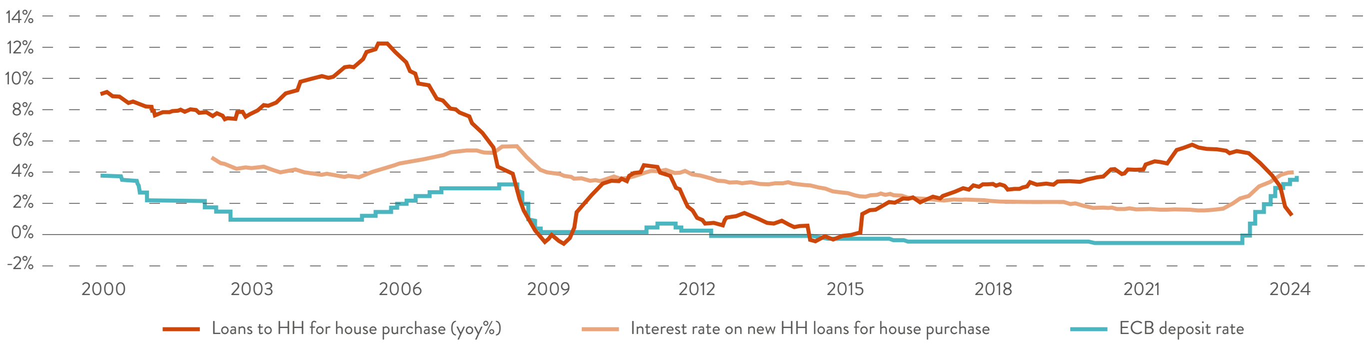
by Andreas (Andy) Jobst, Global Head of Macroeconomic and Capital Market Research, Allianz SE

- **Tightening financing conditions and slowing growth are putting pressure on the European housing market.** Swiftly rising mortgage rates have dramatically reduced home affordability at a time when home prices had already reached unsustainable levels in many countries. With higher inflation eroding disposable income, credit demand for home purchases is bound to subside over the next quarters while insufficient construction of new dwellings limits supply and keeps house prices elevated.
- **At the same time, higher construction costs and rising interest rates could challenge the European "renovation wave"** as the electrification of space heating and enhancing the energy efficiency of residential buildings becomes exceedingly expensive.
- **Thus, effective policy interventions need to be geared towards green aspects**. We find that a combination of increasing the supply of housing and scaling up public support for vulnerable households could strengthen households' incentives to invest in energy-efficiency measures, advancing one of the key goals of the EU Green Deal.

Tightening financing conditions and slowing growth are putting pressure on the European housing market. While the overvaluation of real estate remains a global concern despite significant price corrections since last year, Europe is particularly affected by weak growth and the impact of high inflation on real incomes (which were declining even before Russia's invasion of Ukraine). As Europe flirts with recession, rising interest rates and high energy costs have put purchasing a home out of reach for most households, adding to pre-crisis price pressures resulting from disrupted supply chains for construction materials and higher labor costs. For many, housing is the main form of investment, but even when not owned, real-estate-related payments (be it for rent or mortgage loans) take up a large part of monthly incomes. However, the effects on house prices vary across the Eurozone.

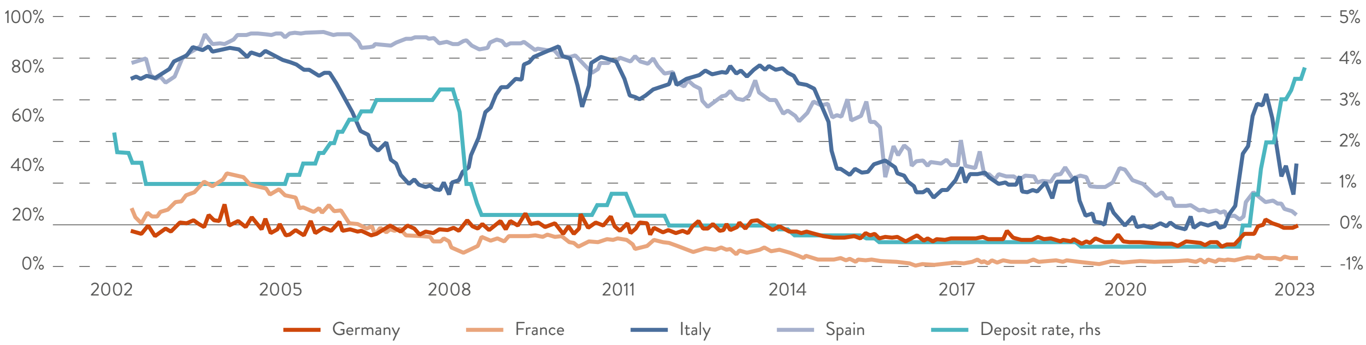
Households continue to face higher borrowing costs for home purchases; interest rates for new residential mortgages surpassed 4% in June (up from 1.6% in June 2021). Moreover, the ECB's latest Bank Lending Survey (BLS) confirms the gloomy outlook for housing credit, which has already cooled to 1.25% y-o-y in June (down from 4.4% in December). Similarly, credit standards for loans for house purchases have become tighter across all the major Eurozone economies, given banks' higher risk perceptions and lower risk tolerance. Credit

FIGURE 1 | EUROZONE LOANS FOR HOUSE PURCHASE – ANNUAL GROWTH VS. INTEREST RATE (NEW BUSINESS)



Sources: Refinitiv Datastream, authors

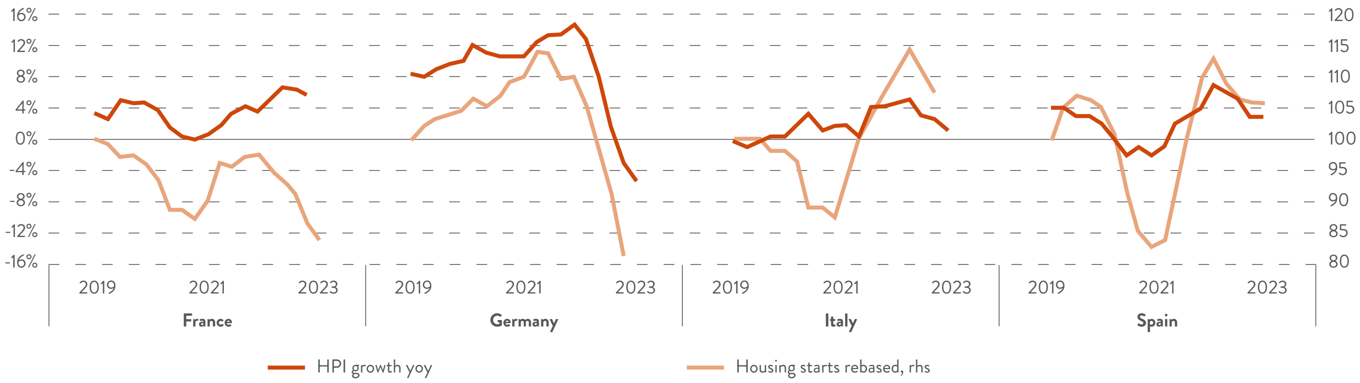
FIGURE 2 | SHARE OF VARIABLE RATE LOANS (% OF TOTAL NEW LOANS) VS. ECB DEPOSIT RATE (%)



Sources: ECB, Refinitiv Datastream, authors demand has subsided due to tightening financing conditions (but less than in Q4 2022, which saw the highest rate of credit contraction since the survey began in 2003) (Figure 1). Interestingly, consumers in some countries (especially in Italy) have begun to opt again for variable-rate loans, indicating that they do not want to "lock in" high rates (Figure 2), expecting lower rates over the medium term. A further rise in rates could intensify the strain on borrowers' debt-servicing capacity, already challenged by spiking energy costs and inflation.

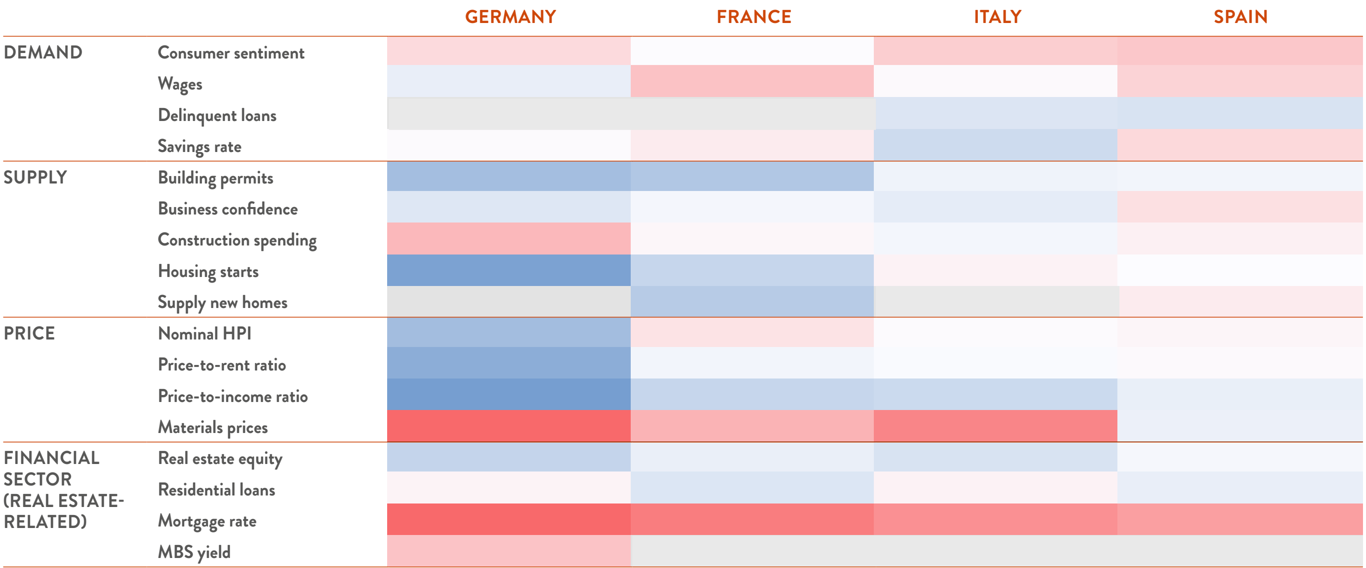
Supply-side constraints slowed the decline in house prices (Figures 3 and 4). Diminishing supply of new homes, hampered since the onset of the pandemic (restrictions on activity, multiple supply-chain disruptions and materials inflation), is set to continue as real estate developers maintain a cautious approach, given the gloomy growth prospects and higher borrowing cost. Housing starts are below 2019 levels in Germany and France, while in Italy and Spain they remain above but declining from the post-Covid boost. When it comes to existing homes, households have not yet felt the urge to sell and protective measures (e.g. evictions moratoria) have similarly reduced supply; the rapid increase in the cost of materials has also kept demand for building renovations.

FIGURE 3 | EUROZONE NOMINAL HOUSE PRICES (% Y-O-Y, LHS) AND HOUSING STARTS (REBASED AS OF DECEMBER 2018, RHS)



Sources: national sources, OECD, Refinitiv Datastream, authors. Note: HPI growth in nominal terms; housing starts as the rolling sum, rebased as of December 2018; the labels in the x-axis coincide with the beginning of the year.

FIGURE 4 | ANNUAL CHANGES IN KEY VARIABLES FOR THE EUROZONE HOUSING MARKET (Z-SCORES)*

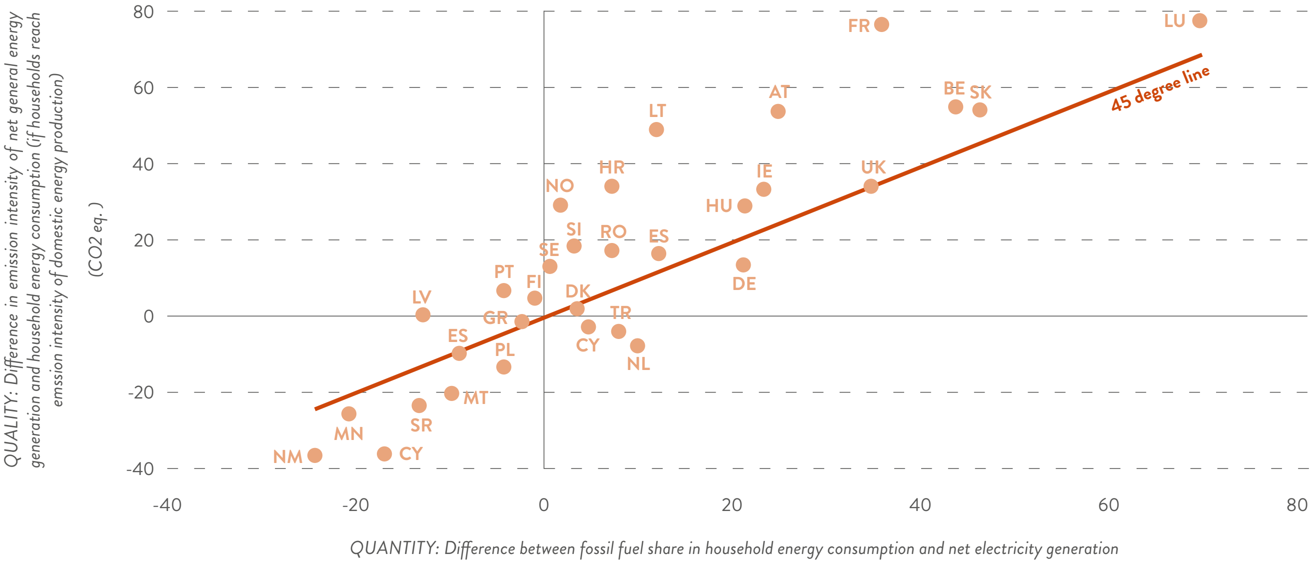


NOTE: * Latest available date for each indicator (z-scores); the z-scores are computed over a 20 year-period, or the maximum available when the series has less than 20 years of history; grey cells reflect missing data.

Sources: Refinitiv Datastream, authors

France and Germany's housing markets are most at risk of (further) price adjustments. For Germany, we forecast We forecast real house price corrections of up to 5% until mid-2024, which would amount to a cumulative correction of 15% compared to end-2021. In France, household demand for new residential mortgages has fallen to historical lows since the second half of 2022. Italy and Spain could muddle through with stagnant property prices if the soft-landing scenario materializes, but risks are skewed to the downside. This is particularly the case in Italy, where the number of potential real estate buyers has decreased over the past year, and the average time to sell a house has significantly increased after hitting a 10-year low in early 2022. Overall, the shortage of housing is a common feature in all countries, which will counterbalance the downward price pressures and help avoid a crash. In this context, there are increasing calls for more government measures in affordable housing.

FIGURE 5 | EUROPEAN HOUSEHOLDS—POTENTIAL REDUCTION OF ENERGY USE FROM RETROFITTING (IN PERCENT, FOR AVERAGE LIFE-CYCLE EMISSION ESTIMATES OF ENERGY GENERATION AND COMPLETE UPGRADE TO EPC=A)

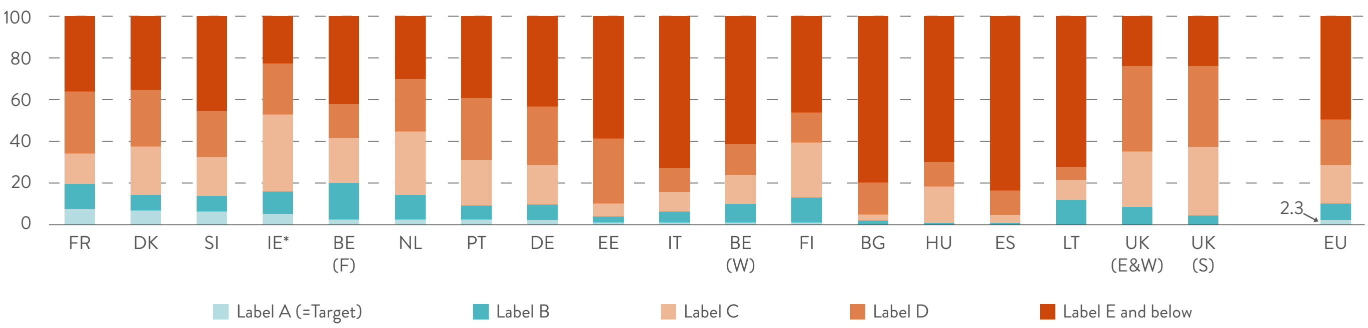


Sources: Jobst and others (2020)

Declining home affordability due higher interest rates could also jeopardize the European "renovation wave" under the EU's Green Deal ambitions.[1] Enhancing the energy efficiency of buildings through renovation and retrofitting as well as electrification of space heating represents a key plank in the EU climate policy agenda and will be essential for the EU to achieve its net-zero emission target by 2050.[2] Improving the energy efficiency of the current EU housing stock could more than halve the emission intensity of residential buildings (Figure 5), especially in Austria, Belgium, France and many Central and Eastern European countries.

However, the practicality and financing have become more challenging. The electrification of buildings through heat pumps might not be the economically most effective way for households to reduce emissions, which also have to make costly energy-saving improvements to their homes in an environment of rising interest rates and tighter credit conditions. Furthermore, there is a lack of personnel to carry out the renovation and of material.[3] An increase in energetic refurbishments is therefore only possible if there is sufficient public sector support for vulnerable households and investments are made in additional production capacities for building materials and in the construction sector.

FIGURE 6 | SELECTED EUROPEAN COUNTRIES — DISTRIBUTION OF BUILDING STOCK BY EPC CLASS (% OF DWELLINGS)



NOTE: * Date for Ireland have been obtained from the BPIE; 1/ countries with no central database (e.g., Poland) or with limited information (Czech Republic, Romania, Slovak Republic) are not included. Belgium data for Flanders and Wallonia; UK for England & Wales and Scotland.

Sources: BPIE, EEA, Eurostat (EU Building Stock Observatory), Jobst and others (2020), authors

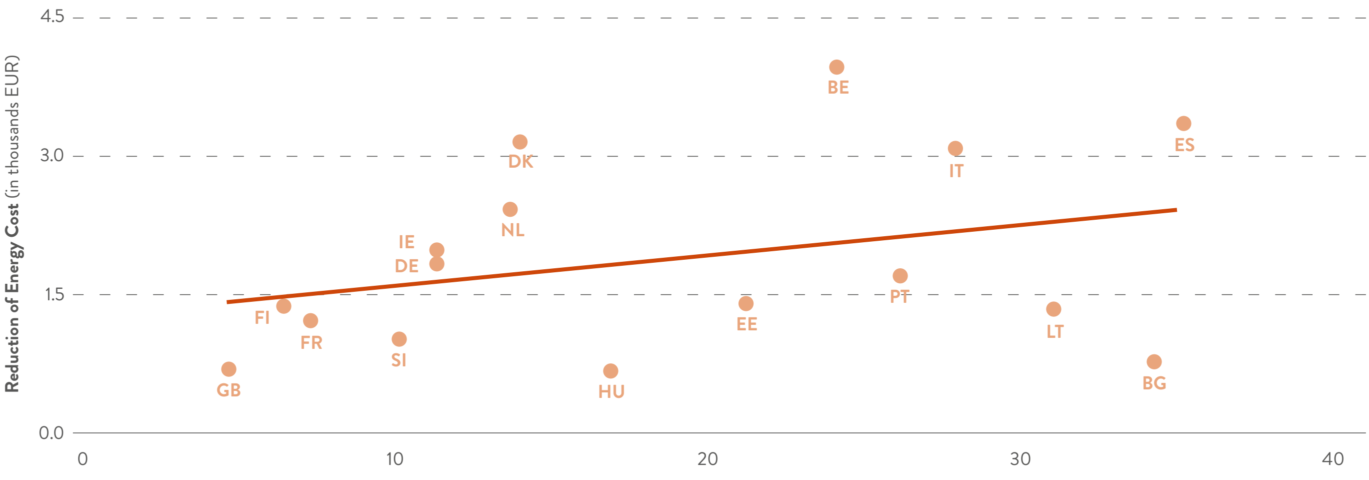
1 The European Commission (EC) adopted a sustainable finance taxonomy that determines for EU purposes which activities contribute to climate-change mitigation or adaptation, and in a late amendment the EC significantly expanded the taxonomy's criteria for buildings acquisition and ownership. The current (and recently) broadened criteria include financing secured by pre-2021 buildings that fall within the top 15% of energy-efficient buildings in the country or region. The 15% standard supports the energy transition by capturing a country's improvements in energy-efficiency standards over time, and now aligns with the Climate Bond Initiative standard accepted by the market. The EC's initial draft required buildings to have an Energy Performance Certificate (EPC) of "A," which would typically include fewer than 10% of properties in a country, and in some countries as low as 1%.

2 Especially the German government has recently stepped up its climate ambition in the building sector. Since the amendment of the Climate Protection Act, Germany has been pursuing the goal of achieving a climate-neutral building stock by 2045. From 2024 onwards, the proposed Building Energy Act also requires newly installed heating system need to operate with at least 65% renewable energy.

3 Capacity utilization among manufacturers of thermal insulation, windows and heat pumps was consistently high at 88% in 2019 and 94% in the first half of 2022.

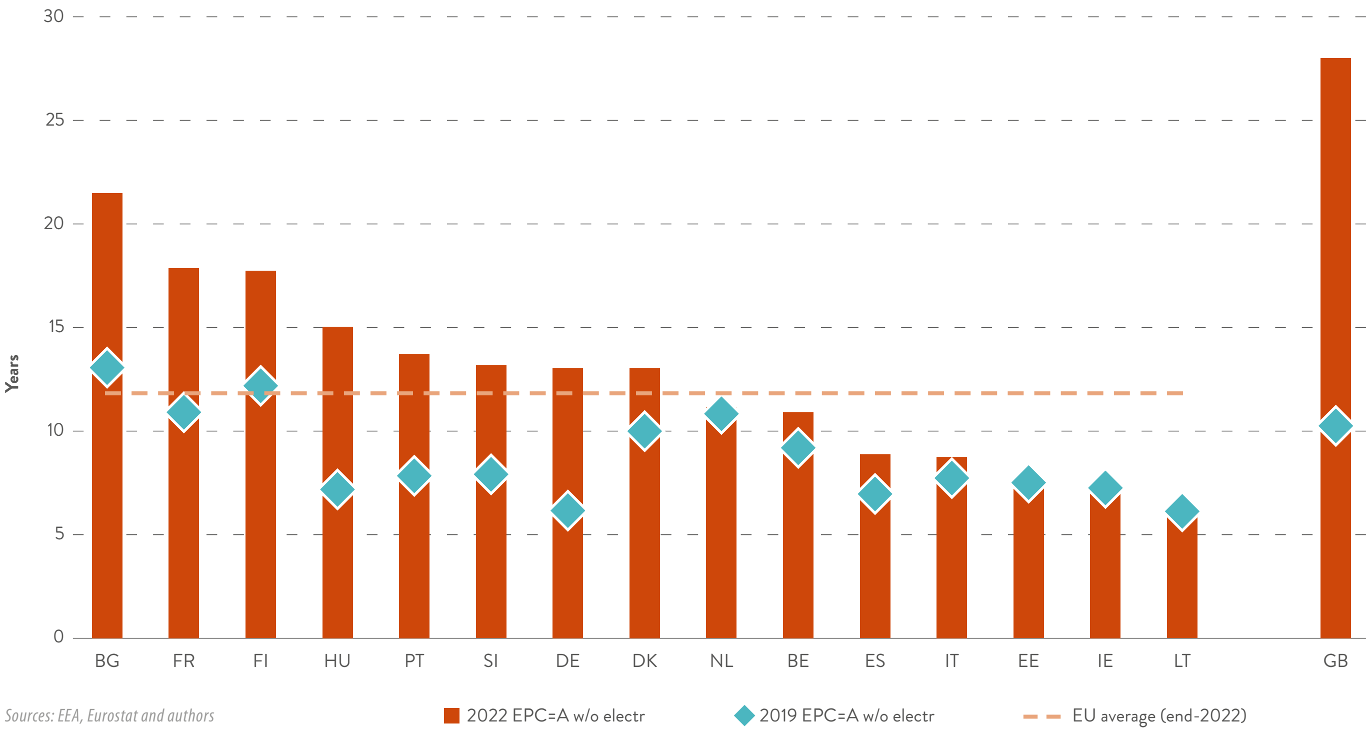
While energy prices have stabilized thanks to lower concerns about gas shortages in Europe and government-imposed price caps, higher construction cost as well as rising interest rates have made it challenging for households to complete renovations and/or replace fossil-fuel heating systems. Buildings in Europe account for about one-third total energy consumption. However, emission reductions cannot be achieved by replacing fossil fuel heating with heat pumps alone. Savings can be achieved primarily through energy-related renovations. However, so far, progress has been very slow. Less than one percent of the residential building stock is renovated each year. Yet, the energy requirement of existing buildings is up to 55 times higher than of new buildings. Refurbishing all existing buildings over the next 25 years would require a gradual increase in the refurbishment rate from one to four percent per year (Figure 6).[4]

FIGURE 7 | SELECTED EUROPEAN COUNTRIES: ESTIMATED ENERGY COST SAVINGS FROM RETROFITTING (COMPLETE UPGRADE TO EPC=A)



Sources: EEA, Eurostat and authors

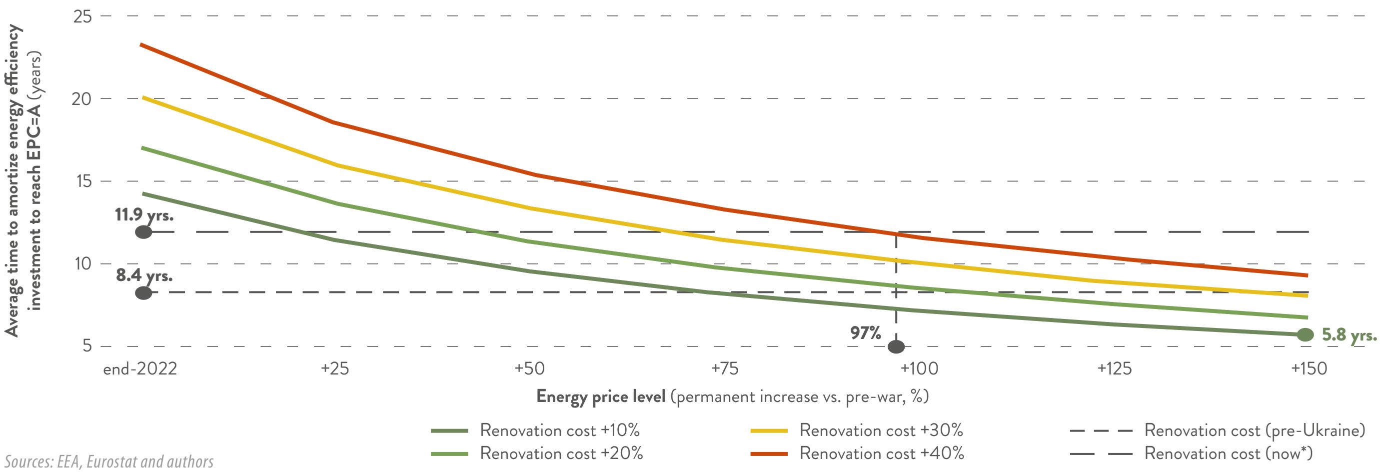
FIGURE 8 | SELECTED EUROPEAN COUNTRIES: TIME TO RETURN ON INVESTMENT ON ENERGY EFFICIENCY IMPROVEMENTS (COMPLETE UPDATE TO EPC=A, WITHOUT ELECTRIFICATION)



Sources: EEA, Eurostat and authors

[4] Housing has also become more and more expensive, so that in addition to investments to achieve the more stringent climate targets, the affordability of building and housing must be considered. The slump in housing prices has not negatively impacted prices for new homes but exiting homes have taken a hit in the first quarter of 2023 from increased interest rates, tightened credit conditions and anticipated high renovation costs.

FIGURE 9 | EU RESIDENTIAL BUILDINGS: AVERAGE AMORTIZATION TIME OF ENERGY EFFICIENCY INVESTMENT



Sources: EEA, Eurostat and authors

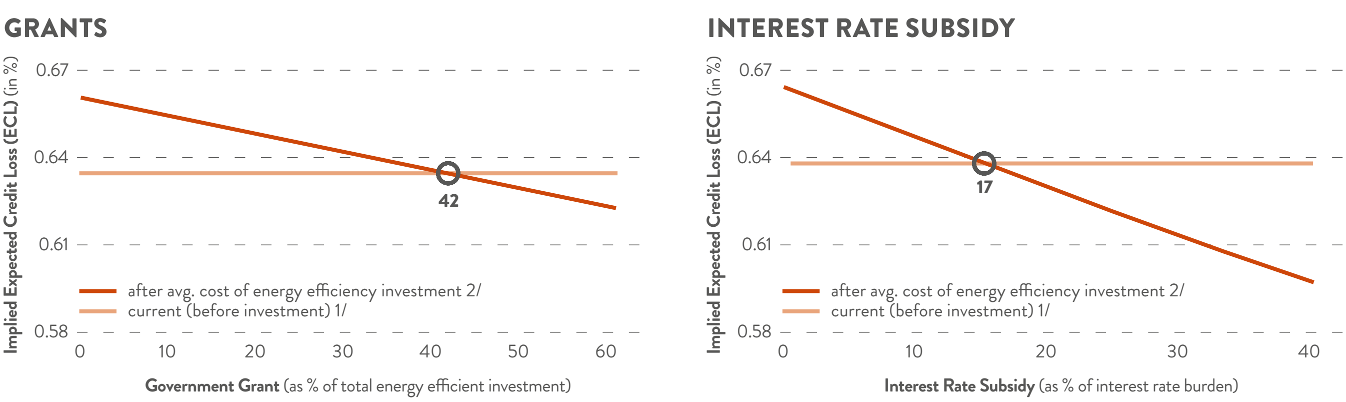
NOTE: based on an energy efficiency upgrade to EPC=A as simple average across all EU countries, after controlling for differences in energy prices, quality of housing stock, and dwelling size.

We find that energy-efficiency renovations have become less attractive as additional energy savings are insufficient to outweigh higher renovation and installation costs (due to the rising costs of materials and labor) (Figures 7-9). Based on recent data, the amortization time has increased by three years to about 12 years for an average dwelling if structural price pressures in the building and construction sector as well as labor costs remain contained and energy prices stabilize at higher levels. Building renovations in Italy, Spain and the Baltics, are more attractive than in almost any other EU country due to higher relative energy savings and emissions reduction potential (despite higher structural disincentives to renovations due to a high share of rental properties and a low annual building rate).[5] However, either a small pullback in construction cost or a stronger permanent increase in energy prices can restore the pre-war amortization time for building renovations of less than 9 years (which is probable if European governments progressively increase the carbon price for fossil fuels and the inclusion of the building sector the EU's Emission Trading System (ETS) becomes effective).

While energy-efficiency investments are self-financing, they are front-loaded and tend to exceed the financial capacity of most households. Hence, demand for energy-efficiency improvements has remained below the levels required to align emission reductions in the building sector with the overall EU emission-reduction target. This raises the question of whether existing financial instruments (i.e., mortgages, home equity/consumer loans) can address this market failure, and to what extent this has implications for financial stability.

Thus, we analyze the scale of public support needed to neutralize the net impact of energy-efficiency investments (renovation/retrofitting as well as greater electrification) by keeping the default risk of European households unchanged under no arbitrage conditions. We also consider that macroeconomic conditions have influenced the need for public sector support to overcome the timing-mismatch in housing renovations aimed at improving the energy efficiency of residential buildings. We find policy support would need to be scaled up urgently, especially in countries with a high potential of reducing the carbon footprint of housing (Figure 10). Based on current household survey data, households would on average require either government grants covering about 40% of energy-efficiency investments or a reduction of their mortgage interest rate burden by about 20% (for instance, through a government subsidy that helps discount green mortgages or home equity loans).

FIGURE 10 | OPTIMAL SCALE OF GRANTS AND INTEREST RATE SUBSIDIES FOR COMPLETE ENERGY-EFFICIENCY IMPROVEMENT IN RESIDENTIAL HOUSING (PERCENT)



Sources: Eurostat, authors

NOTE: 1/ for an average European household with annual gross income of EUR100k and a mortgage with LTV=80% and interest rate of 3% over 10 years for a property valued at EUR245k;
2/ Upfront investment cost of EUR35k (assuming permanent 10% increase in renovation cost) generating energy savings of EUR3.6k per year.

[5] Interestingly, a strong price increase in construction and materials cost relative to energy prices has significantly lengthened the breakeven point for UK households.

Covered Bonds and Housing Finance in Emerging Markets

By Antonio Farina and Marta Escutia, S&P Global Ratings

The UN expects that the global population will reach 8.5 billion by 2030, with almost 60% living in urban centers. An estimated three billion people will need new housing and basic urban infrastructure by then. This rapid urbanization will put tremendous pressure on housing delivery systems and require new housing finance solutions. Covered bonds can help mobilising private capital toward mortgage financing in emerging markets to meet this need.

This report analyzes which factors are critical for the successful development of covered bonds in emerging markets. These include a banking system unable to supply sufficient mortgage credit to meet demand, suitable mortgage laws and a robust legal framework to issue covered bonds, and the right incentive to attract domestic and international investors. But the starting point is where most mortgages are originated: the primary mortgage market.

DEVELOPING AN ACTIVE PRIMARY MORTGAGE MARKET

Housing finance usually emerges as a retail activity. In the primary mortgage market, deposit-taking institutions, such as banks, can fund mortgages through deposits. It is unlikely that covered bonds and other forms of wholesale mortgage funding can emerge in countries with weak and under-developed primary mortgage markets.

Banks find covered bonds attractive when their mortgage book is growing and alternative funding options are limited. But mortgage markets are still very small in many developing countries: in low- to middle-income countries, mortgage markets average below 10% of GDP, while in high-income countries they tend to be much larger, averaging around 60% of GDP (Hoek-Smit, Kim and Wachter 2020).

Factors such as demographics, the rate of household formation, income levels, affordability, and the ease of purchasing and registering property drive demand for owner-occupied homes, which in turns determines the demand for housing finance. Supply requires that certain fundamental building blocks be in place. These include a trusted property rights and property registration system, a legal and regulatory framework to facilitate the functioning of housing finance systems and the enforcement of mortgage laws, availability of credit and housing market information, and willingness by lenders to serve creditworthy low-income households or make small loans.

Warnock and Warnock (2012) finds that, after controlling for country size, economies with stronger legal rights for borrowers and lenders (through collateral and bankruptcy laws), deeper credit information systems, and a more stable macroeconomic environment have deeper housing finance systems. Their regression analysis implies, for example, that aligning the legal rights for borrowers and lenders in emerging markets to the mean values for advanced economies would be associated with increases in mortgage debt-to-GDP ratio of 5.6% - a sizeable increase considering that average mortgage debt is 9.4% of GDP in the emerging markets in their sample. Many factors associated with well-functioning housing finance systems are those that enable the provision of long-term finance.

HOW CAPITAL MARKETS CAN FUND HOUSING IN EMERGING ECONOMIES

In emerging economies residential lending is typically small and funded by deposits. When deposits are the main (or only) source of funds, housing loans tend to be short term or at variable rates. In countries with a well-functioning primary market, an important additional source of funds for the housing finance system can be the secondary mortgage market. Accessing capital markets to mobilize funds can lower funding cost and improve lenders' ability to manage financial risks imbedded in long-term mortgage lending.

Covered bonds, securitization of mortgages, or mortgage liquidity facilities (MLFs) are examples of the use of capital markets for mortgage funding. The adoption of one or more of them depends on the needs of primary market lenders and the state of development of the local accounting and legal systems, as well as the housing and bond markets.

MLFs provide funding and capital market access to primary mortgage lenders by either purchasing loans on a full recourse basis from them or by lending to them against mortgages pledged to the facility. MLFs are typically government owned, structured as a public–private partnership, or government supported. MLFs are considered generally more appropriate for emerging markets because they are less complex than covered bonds or securitization[1].

As the market matures, MLFs also have an important role to play in assisting the market to achieve a higher level of sophistication. By acting as a central refinancing platform, they can promote standardisation in mortgage instruments, documents and underwriting, and standards of servicing and of property appraisal. Such standardization helps the development of other secondary market instruments, such as covered bonds and securitization, by improving risk management and transparency – and thus increasing their attractiveness to investors (Hassler and Walley 2012).

Banks generally issue covered bonds in accordance with a dedicated legal or regulatory framework. The framework defines the programs' main characteristics: issuer structure, asset segregation and eligibility, overcollateralization and liquidity requirements, cover pool monitoring, and banking supervision.

1 MLFs don't require, among other things (1) bankruptcy remote structures such as special purpose vehicles; (2) a specialized legal framework and willingness of authorities to grant exemptions; (3) a tax framework capable of treating securitization in a tax-neutral manner; (4) a specific accounting framework; and (5) the ability to transfer/assign security interest at a low cost, all of which are required for securitization.

But the legislative process can take longer than expected. Morocco approved the first dedicated covered bond framework in Africa only in 2022, almost a decade after the introduction of the draft law.

IN SEARCH OF A NEW PARADIGM

A dynamic primary market and robust covered bond legal framework are necessary conditions for the success of a new covered bond market, but on their own they may be insufficient. Turkey aligned its framework to international standards at the end of 2014, but international issuance has so far been very limited. Other factors also play a decisive role. Market volatility for example may disrupt issuance plans. Financial institutions may not find it economical or possible to issue in times of high market volatility if, for example, they are unable to find swap providers or enough investors.

Most covered bonds outside Europe still come from financial institutions located in countries with high sovereign ratings, such as Canada, Australia, South Korea, or Singapore. This is probably inevitable, since investors need to first familiarize themselves with new issuers, legal frameworks, and mortgage markets. But the greatest growth potential is probably in emerging markets, where the middle-class will expand the most in the coming decades. Countries such as China and Malaysia may still be able to target traditional covered bond investors, due to high ratings potentially achievable by their covered bonds. But issuers in low investment grade countries – such as India, Mexico, and Indonesia – or non-investment grade countries – such as Brazil – may find it more challenging to attract traditional investors. To be successful there, covered bonds must evolve.

Brazilian covered bonds have so far attracted domestic investors. And we understand that banks in Georgia – which recently approved a dedicated framework – will initially use covered bonds as collateral under the local central bank's liquidity facility, rather than placing them with international investors. More generally, we can expect that a larger share of covered bonds issued outside Europe will target domestic investors, at least initially.

We also believe that non-traditional covered bond investors, such as dedicated emerging market funds, pension funds and insurers, may invest in covered bonds issued in emerging market economies, if the right credit, liquidity, and pricing considerations apply.

IN CONCLUSION

Covered bonds can play a larger role in funding housing markets in emerging markets, but certain conditions need to apply. A successful secondary mortgage market can develop only once the primary market is able to produce a sufficient volume of high-quality mortgages that meet the servicing and performance requirements of investors. And in many countries MLFs are probably better suited to act as an intermediary between primary mortgage lenders and the bond market, at least at an initial stage.

Once the primary market has developed and a suitable legal framework is in place, issuers will need to be realistic about their target investor base. While banks in highly rated countries will probably be able to reach the traditional covered bond investors, issuers in lower rated countries will be probably more successful targeting either domestic investors – at least initially – or dedicated emerging market investors.

REFERENCES

Chiquier L and M Lea (2009). Housing Finance Policy in Emerging Markets.
Hassler O and S Walley (2012). Mortgage Liquidity Facilities.
Hoek-Smit M, KH Kim and S Wachter (2020). Cities with Affordable Housing: Fulfilling the New Urban Agenda.
Warnock VC and FE Warnock (2012). Developing Housing Finance Systems.

For further information on our covered bond research, please visit www.spglobal.com/ratings/en/sector/structured-finance/covered-bonds.

A Sustainable Housing Market: The Way Forward for a New Ecosystem Supporting the Transition Economy

By EMF-ECBC Secretariat

The current geopolitical context, the resulting energy crisis and climate change are making it increasingly necessary to radically rethink the regulatory framework and market best practices of the European housing finance sector. The need for a real acceleration in pace in the coordination of national and European policies opens new scenarios that have perhaps never been seen before.

This turning point is already having a profound influence on current political and legislative debates on crucial market dossiers such as the EU Taxonomy, the Energy Performance of Buildings Directive, the implementation of the final Basel III reforms and, more generally, all issues related to digitalisation and sustainability.

The key to interpreting these new dynamics must be found in the political perimeter outlined by the NextGenerationEU package, which is intended to provide the keys to a future full of opportunities for upcoming generations.

The housing sector is key to the development of a clear market roadmap that will enable the European Union to achieve its goal of reducing greenhouse gas emissions. Indeed, housing is a strategic sector not only because homes are the main place where people spend their lives and, increasingly, work, but also because buildings account for 40% of CO2 emissions in continental Europe.

The scale of the investment needed to improve the energy performance of more than 220 million homes to meet the EU's energy saving targets is immense and cannot be achieved by the public sector alone. The private finance sector in the EU has a central role to play in the transition to a more sustainable economy, reducing energy poverty for households, especially those that struggle to meet the transition challenges, safeguarding consumers' wealth in terms of disposable income and asset value, and supporting economic growth and job creation. In this context, it is of strategic importance to align the interests of lenders, investors, SMEs, utilities and, above all, consumers in multi-service platforms at European level. If we are to reach our 2030 targets, almost 500,000 homes in Europe must be renovated each week.

The real breakthrough of a net-zero Europe will come from the large-scale use of green mortgages. Today, the mortgage market is equivalent to around 46% of the EU's GDP. Stimulating the development and offering of green mortgages is crucial to achieving a climate neutral economy, as highlighted by the Energy Efficient Mortgages Initiative (EEMI)[1], which seeks to introduce an integrated greener, sustainability-focused approach to purchasing, renovating and living in homes.

At the heart of the EEMI are efforts to boost and support consumer demand for building energy renovation by way of an energy efficient mortgage 'ecosystem'. Bringing together a wide range of relevant market players, including lenders, investors, SMEs and utilities, the EEMI is aligning strategies and actions through a new, innovative market mechanism focused on a green "fulcrum" of products, services and data.

Based on consumer research, market research and value chain analysis conducted over a number of years, the EEMI has boiled the findings down into core elements which are being brought together in an EEMI 'ecosystem'. The EEMI Ecosystem is intended to guide consumers towards financial and technical solutions which support them in the energy renovation of their homes. In essence, by combining market innovation, digitalisation and green financing instruments across the whole value chain and seamlessly integrating all market participants into a new value chain, the EEMI Ecosystem will optimise the end-to-end customer journey and experience, deploy market interventions and partnerships that support delivery and maximise benefits for consumers.

Concretely, the EEMI Ecosystem 'platform' is focused on the delivery of a seamless customer renovation journey by way of a three-pillar structure, comprising:

1. A simulator to support consumers in understanding their energy efficiency renovation needs and guide them through the most cost-efficient renovation solutions. The also simulator provides an indication of the value increase of the property, energy savings and CO2 footprint reduction after the renovation project, as well potentially eligible public support mechanisms.

2. Access to financing options by way of the Energy Efficient Mortgage Label (EEML), which is also intended as a quality and transparency benchmark targeted at market participants, including consumers, lending institutions, investors and public authorities. On the Label platform, the labelled lending institutions have the possibility to be directly contacted by potential customers who can request indicative financing offer for their renovation project by submitting the output of the simulation delivered under pillar 1 or other project quotes. Moreover, on a product feature grid consumers have the possibility to succinctly assess the key characteristics of each labelled product and to guide them towards the most efficient and cost-effective financial products. All these efforts seek to scale-up the EEMI's work, demonstrating the end-to-end customer journey and the EEM life-cycle.

3. A directory of accredited suppliers, including both a popular and an ESG rating system, currently under construction via a partner EU-funded Project, and a 'marketplace', where not only consumers and SMEs can interact, but all other relevant market participants providing and requiring a service or product in support of the improvement and financing of the EU's building stock. In order to access the marketplace, the SME needs to be able to satisfy these three conditions: (1) provide an ex-ante and ex-post EPC free of charge; (2) present an ESG score – if a score is not available, our Partner Crif (Synesgy) is able to provide one to SMEs on their website free of charge and (3) guarantee that the works undertaken deliver the projected energy savings.

With a view to delivering this 'ecosystem', the EEMI is currently building a constellation of national platforms focused on local characteristics and implementation needs but with a European footprint. The EEMI governance structure[2], combining the European-

[1] https://energyefficientmortgages.eu/
[2] https://energyefficientmortgages.eu/stakeholders/

level EEM Label and Advisory Council with the EEMI national hubs, is providing the European coordination of national actions, including institutional interventions. Overall, it is the ambition of the EEMI that the "ecosystem" will:

- *Provide access to and guide consumers towards the most efficient and cost effective, integrated technical and financial products, services and advice, whilst ensuring commercial neutrality and offering a European approach to delivering market-specific actions.*
- *Deliver a continuous flow of material data for lending institutions, investors and SMEs on building energy performance (improved EPCs, primary energy demand), EU Taxonomy alignment and ESG counterparty assessment and ratings.*
- *Favour the implementation of market best practices to secure gradual but continuous market transition and alignment with EU legislative requirements.*

THE ENERGY EFFICIENT MORTGAGE LABEL (EEML)

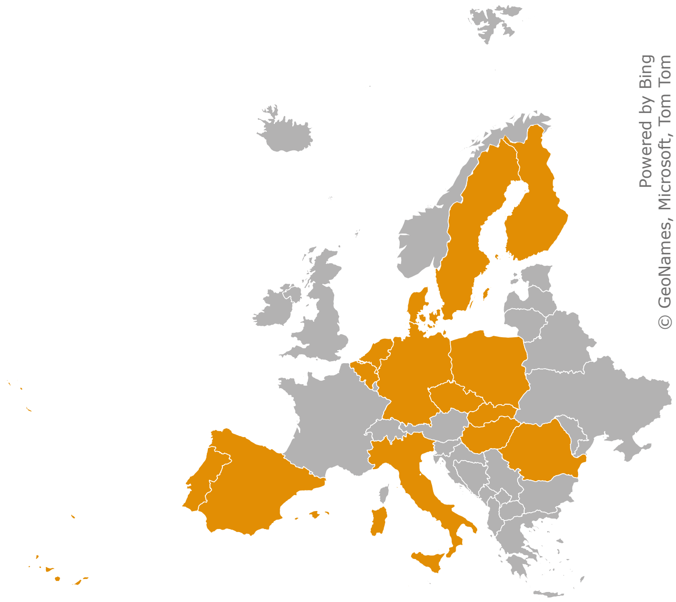
As indicated above, at the heart of this new ecosystem lies the Energy Efficient Mortgage Label (EEML)[3], launched in 2021 as a quality benchmark for consumers, lenders and investors to support recognition of and confidence in energy efficient mortgages. This is achieved through access to relevant, quality, and transparent information for potential borrowers, regulators, and other market participants. In addition, the Label aims to facilitate a process of standardisation to secure and enhance overall regulatory recognition of the asset class.

The Label is built around the EEML Convention[4] and a process of self-certification, both of which are overseen by the label governance[5] structure consisting of: the Label Committee, the Label Secretariat and the Label Advisory Council.

The EEML has been developed using the Covered Bond Label[6] as a blue-print, which is managed by the EMF-ECBC and can look back on a 10-year success story, a period during which it has established itself as the global reference point and data collection benchmark for the over EUR 3 tn. outstanding covered bond asset class. It is the intention that the EEML emulates this goal in relation to energy efficient mortgages and in the wider field of financing of energy efficient renovation, scaling-up volumes and best practices in respect of both ESG-related retail activities and funding policies.

The initiative comes at a pivotal point in time, where efforts are underway at EU level to redesign the regulatory and monetary policy framework to address climate change and transition risks. As of August 2023, 34 pioneering lending institutions from 12 countries[7] have adopted the EEML, covering the four corners of the Old Continent, large and small lending institutions, traditional banks and FinTech platforms.

FIGURE 1 | GEOGRAPHICAL BREAKDOWN OF EEM LABEL LENDING INSTITUTIONS



Source: EEM Label Data

[3] https://www.energy-efficient-mortgage-label.org/
[4] https://www.energy-efficient-mortgage-label.org/about-us/convention
[5] https://www.energy-efficient-mortgage-label.org/governance/structure
[6] https://www.coveredbondlabel.com/
[7] https://www.energy-efficient-mortgage-label.org/issuers/directory

KEY ELEMENTS OF THE EEM LABEL

To be part of the EEML interested parties need to *self-certify* that they are a lending institution with products aligned with the *EEML Convention,* for which they need to disclose relevant information using the *Harmonised Disclosure Template*[8], at least on a quarterly basis. A dedicated *Harmonised Reporting Template*[9] has been developed for Retrofitting Loans with which to provide the relevant disclosure on leases, targeted and non-targeted loans.

THE EEM DEFINITION AND THE LABEL CONVENTION

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 that are likely to have both lower credit risk and support climate change mitigation and adaptation.

- *In the context of the EEM Label, this definition currently forms the basis of the Convention and serves as the technical benchmark of the Label:*
- *Energy Efficient Mortgages (EEMs)[10] are intended to finance the purchase/ construction and/or renovation of both residential (single family & multi-family) and commercial buildings where there is evidence of: (1) energy performance which meets or exceeds relevant market best practice standards in line with current EU legislative requirements and/or (2) an improvement in energy performance of at least 30%.*
- *This evidence should be provided by way of a recent EPC rating or score, complemented by an estimation of the value of the property according to the standards required under existing EU legislation. It should specifically detail the existing energy efficiency measures in line with the EEM Valuation & Energy Efficiency Checklist.*
- *Lending institutions are committed to providing regular information enabling investors to analyse the Energy Efficient Mortgage products, following the Harmonised Disclosure Template or the Harmonised Reporting Template, depending on the type of labelled loan.*

Importantly, the EEM Label Committee is working on the revision of the Definition/ Convention to ensure alignment, as appropriate, with the EU Taxonomy.

Finally, it is worth noting here that in recognition of the availability of different types of energy efficient/green financing products, the EEM Label website also provides the possibility to label unsecured consumer loans for energy efficient renovation purposes.

CLOSING THE DATA GAP BY PROVIDING THE HOUSING SECTOR WITH GLOBAL ESG DATA DISCLOSURES BEST PRACTICES: THE HARMONISED DISCLOSURE TEMPLATE AND HARMONISED REPORTING TEMPLATE

THE HARMONISED DISCLOSURE TEMPLATE

With a growing focus on sustainable finance – from regulators, market participants and investors alike – transparency and disclosure are becoming crucial drivers in harmonising best practices and in mitigating the "green-washing" risk in the financial sector, securing investors' confidence and financial stability. Considering this, the Harmonised Disclosure Template (HDT) allows for improved comparability of energy efficiency mortgages. The key is to establish centralised and up-to-date qualitative and quantitative information, which will be available for investors, regulators and other market participants.

The objective is to stimulate the creation of a positive incentive sequence across the mortgage value chain for more consistent and standardised data collection and management, as well as to better link loan information, property and energy efficiency characteristics in a single common template. Standardisation will support investor due diligence, facilitate regulatory reporting requirements in this area and enhance overall transparency in the EEM and (covered) bond markets. To strike the balance between the standardised structure valid for all labelled EEM products and the national peculiarities in reporting specific data points such as the breakdown of loan size, the HDT provides for the introduction of nation-specific breakdowns managed by national coordinators.

The HDT is based on the Master Template delivered under the Energy efficient Data Protocol & Portal (EeDaPP[11]) Project, which organises EEM "input" data and is also inspired by the successful Harmonised Transparency Template (HTT) of the Covered Bond Label. Indeed, efforts have also been undertaken to align the HTT and the HDT as much as possible to facilitate completion and due diligence by banks which have both an EEM Label and the Covered Bond Label. The HDT is furthermore fully compliant with existing regulatory and market disclosure requirements.

The HDT must be completed for each labelled EEM product at least every quarter and has the following structure:

- **A1. EEM General Mortgage Assets:** Tab where information on the general mortgage portfolio is requested (e.g. location, size, ESG, repayment type, LTV, NPL, type of building). The information is also subdivided for type of real estate (residential or commercial).
- **B1. EEM Sustainable Mortgage Assets:** Tab which requests the same set of information as tab A1, but focused only on the subset of mortgages which are EEM compliant.
- **EEM Harmonised Glossary:** Tab where definitions and further comments on the sections of the HDT can be introduced
- **Optional Taxonomy Tab:** Tab where lending institution can provide some high-level indication on the EU Taxonomy of their mortgages.

In order to be aligned with market best practices and with regulatory requirements, the HDT undergoes an annual revision process which culminates with the approval of the updated HDT in September/October. This effort is supported by both the lending institution community and by the Disclosure Working Group comprising national coordinators[12], EEML Committee members and interested representatives of the

[8] https://www.energy-efficient-mortgage-label.org/hdt

[9] https://www.energy-efficient-mortgage-label.org/hdt

[10] Footnote to definition: In the context of the EEM Label the term "mortgage" refers to residential and commercial property loans which fall within the scope of the Capital Requirements Regulation (Regulation 2013/575/EU) and/or Mortgage Credit Directive (Directive 2014/17/EU) or under equivalent legislation outside of the EEA.

[11] **The Energy Efficiency Data Protocol and Portal (EeDaPP) Initiative** – led by European Mortgage Federation-European Covered Bond Council (EMF-ECBC), Ca' Foscari University of Venice, CRIF, European DataWarehouse, Hypoport, SAFE Goethe University Frankfurt and TXS – aims to design and deliver a market-led protocol, which will enable the large-scale recording of data relating to energy efficient mortgage assets, via a standardised reporting template. The data will be accessed by way of a common, centralised portal, allowing for continuous tracking of the performance of the energy efficient mortgage assets, thereby also facilitating the earmarking of such assets for the purposes of energy efficient bond issuance.

[12] https://energyefficientmortgages.eu/national-hubs/

FIGURE 2 | HDT DATA PRESENTATION ON THE EEML WEBSITE

lending institutions to support the Secretariat in gathering potential amendments to the HDT based on suggestions related to overarching and national-specific reporting and disclosure issues.

Currently, 34 lending institutions have disclosed HDTs on 34 products that are available on the EEM Label website. As with the Covered Bond Label, for the EEML the HDTs are exclusively publicly available via the lending institutions' own websites. A reporting tool using direct links to the HDTs creates a graphical representation of the data contained therein on the EEML website, as shown in Figure 2.

THE HARMONISED REPORTING TEMPLATE

In the same fashion as the HDT reports data on EEM Labelled mortgage products, the Harmonised Reporting Template (HRT) focuses on retrofitting loans intended to support consumers in improving the energy performance and/or reducing environmental risk vulnerability of their dwelling. The HRT is inspired by the work already done in the HTT and HDT, as well as by reporting templates from the ECB and reporting templates used for private finance loans by various market participants.

The HRT must be completed by all lending institutions which present a labelled retrofitting loan starting from cut-off date Q2 2023. It is structured as follows:

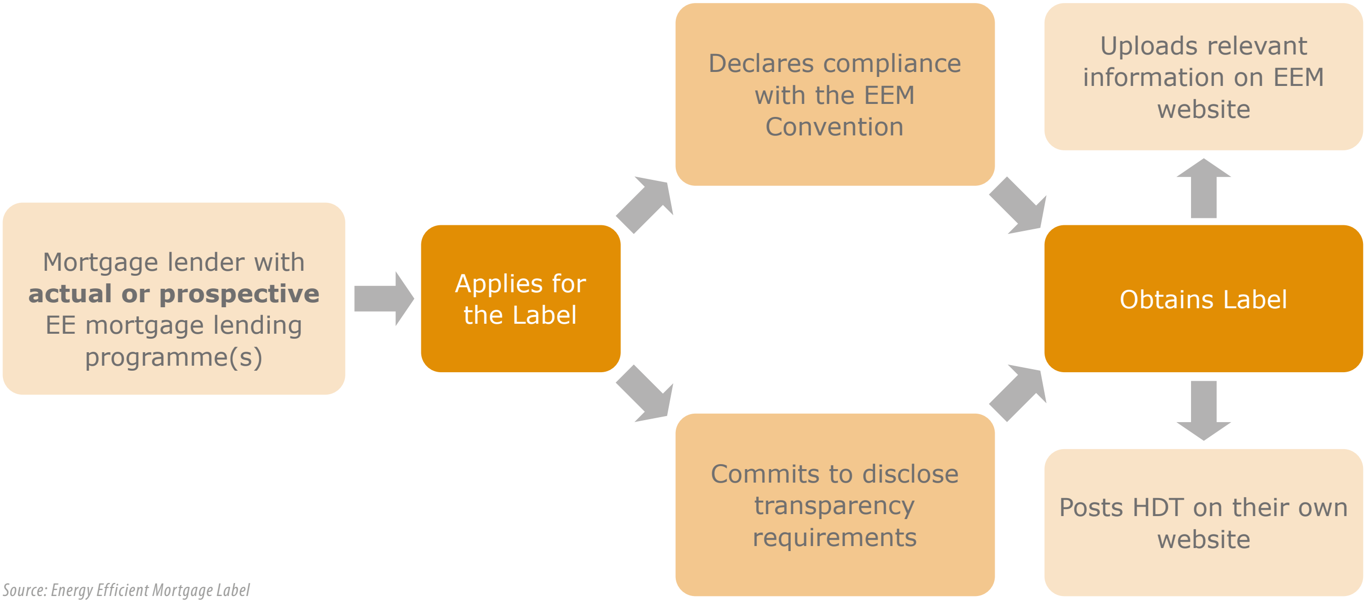
- **A1. EEM Loans:** Tab where information on retrofitting loans is reported. Contrary to the HDT there is only one loan-specific tab including all EEM labelled loans as collecting information on the general loan portfolio to be used as a reference with respect to the EEM labelled loans would not provide a useful datapoint. Against this background the information is reported by dividing the retrofitting loans into three categories: leases, targeted loans and non-targeted loans. The information to be provided, besides the size and location, repayment type and interest rates focuses on the division of the dedicated use of the loans, namely whether it is used for financing housing energy efficiency or renewable energy.
- **EEM Harmonised Glossary:** Tab where definitions and further comments on the sections of the HRT can be introduced
- **Optional Taxonomy Tab:** Tab where lending institution can provide some high-level indication on the EU Taxonomy of their mortgages.

SELF-CERTIFICATION

As indicated above and once again drawing on the experience of the Covered Bond Label, the EEML is based on a process of self- certification, according to which lending institutions signal their compliance with the Convention. The process of self-certification is detailed in Figure 3.

The self-certification process highlights and is testament to a real ESG engagement and strategy for EEM labelled lenders. This process of self-certification has proven to work very efficiently in relation to covered bonds, as a result of subsequent scrutiny by other market participants, including investors and rating agencies, of the publicly disclosed HTT, representing a form of "third-party verification". This has given rise to a market-led mechanism which effectively polices itself with the result that the cost of not accurately disclosing data or falsely declaring compliance with the Convention is high in terms of reputation and potential impact on the underlying product or ratings. This will help to mitigate any risk of "green-washing".

FIGURE 3 | EEM LABEL SELF – CERTIFICATION PROCESS



Source: Energy Efficient Mortgage Label

CONCLUSION

The Energy Efficient Mortgages Initiative (EEMI) is leading the market towards a real, cultural change in the housing sector by proposing coordinated and integrated solutions at global level for retail, funding, marketing and risk analysis strategies in the banking sector. This will accompany lenders in building common best practices and delivering new green products and solutions for consumers. This pivotal change will not only support the appetite for ESG assets in capital markets but, more importantly, help mitigate 'green washing', thereby facilitating investors' due diligence and reinforcing the overall financial stability perspective in the ESG space.

The Initiative aims at scaling-up volumes, solutions and opportunities for the entire value chain with the end goal of delivering into the hands of consumers a real and affordable microeconomic advantage when renovating their homes. Against this backdrop, we must remember that the real decision-makers in the housing transition economy are the owners of properties who need to be encouraged to make informed decisions for the future benefit of their children, looking at the world from a new perspective. This revolutionary change in behaviour should be supported by the appropriate toolbox of incentives, regulation and subsidies. The banking sector is ready to provide the necessary support along the customer journey by supplying new green financing products and renovation opportunities.

Indeed, such an exercise should not be seen as "just" a philanthropic decision taken by already environmentally conscious people who also tend to be more affluent. It will be a win-win solution, especially for those families for whom it is more difficult to make ends meet and who are more likely to live in less energy-efficient homes and for whom running and living costs represent a larger share of their budget.
In this time of unprecedented crisis, we must turn challenges into opportunities, looking the next generation in the eyes. Our homes, the place where we raise our children, are at the heart of our lives and interests: exactly like the word "Home", οἶκος (oikos) at the heart of the ancient Greek word "oikonomia". A sustainable economy must be built around the concept of "home", the cornerstone of citizens' interest, centred on an ESG "ecosystem" that promotes green values and raises environmental awareness.

Through the EEMI and its Ecosystem, the mortgage and covered bond industries are laying the foundations for a market paradigm that secures both economic growth and financial stability. This, it is hoped, will give rise to a green 'Renaissance' rooted in a new perspective of sustainability, digitalisation and social inclusion, to fund the hope for a better, greener future.

United in Diversity -Multidimensional Patterns in European Housing and Mortgage Markets in 2022

By Eric Hüllen, Daniele Westig, Jennifer Johnson and Luca Bertalot,
European Mortgage Federation - European Covered Bond Council

The housing and mortgage markets across European jurisdictions are exhibiting a heterogenous and multidimensional picture, which is increasingly difficult to capture by looking at individual indicators. In this article we have tried to show the markets from different angles and for different variables and different time frames. While the markets are diverse – as Europe's cultures, financial and social traditions and people are – the integration towards a common financial architecture, accompanied by free flow of resources, facilitates the allocation of resources to best meet individual consumer needs. Recent developments such as changes in mortgage fixing periods show the capacity of the mortgage market to move from traditional national characteristics to solutions that better help consumers. The capacity of the whole industry to critically analyse trends and the benefits of increasing the single market are key to ensure Europe's success while accounting for the uniqueness of each country, city and consumer. The housing and mortgage markets in Europe represent 43% of the European GDP and approximately one-third of banks portfolios, playing a critical strategic role in single market implementation, the transition economy for a greener future and for financial actors and citizens. As major driver of private capital in the real economy, mortgages and housing are also efficient mechanisms of transmission of ESG policies in citizens' real life, acting as catalysts of changing consumer behaviour and playing a critical role in social integration and inclusion.

Editorial note

This review looks at the European housing and mortgage markets to the end of 2022. The data in this report covers the impact of the recent macroeconomic disruptions, increasing prices, trade and energy supply uncertainty and the political crisis in the Ukraine. It should be noted that all data referring to the Euro zone refers to the Euro area 19 (EA-19) countries, as Croatia joined only on 1 January 2023. Readers will find further information on the current state of the housing and mortgage markets, as well as forward-looking highlights, in the individual country chapters. We also refer you to the EMF Quarterly Review for more up to date information.

MACROECONOMIC OVERVIEW

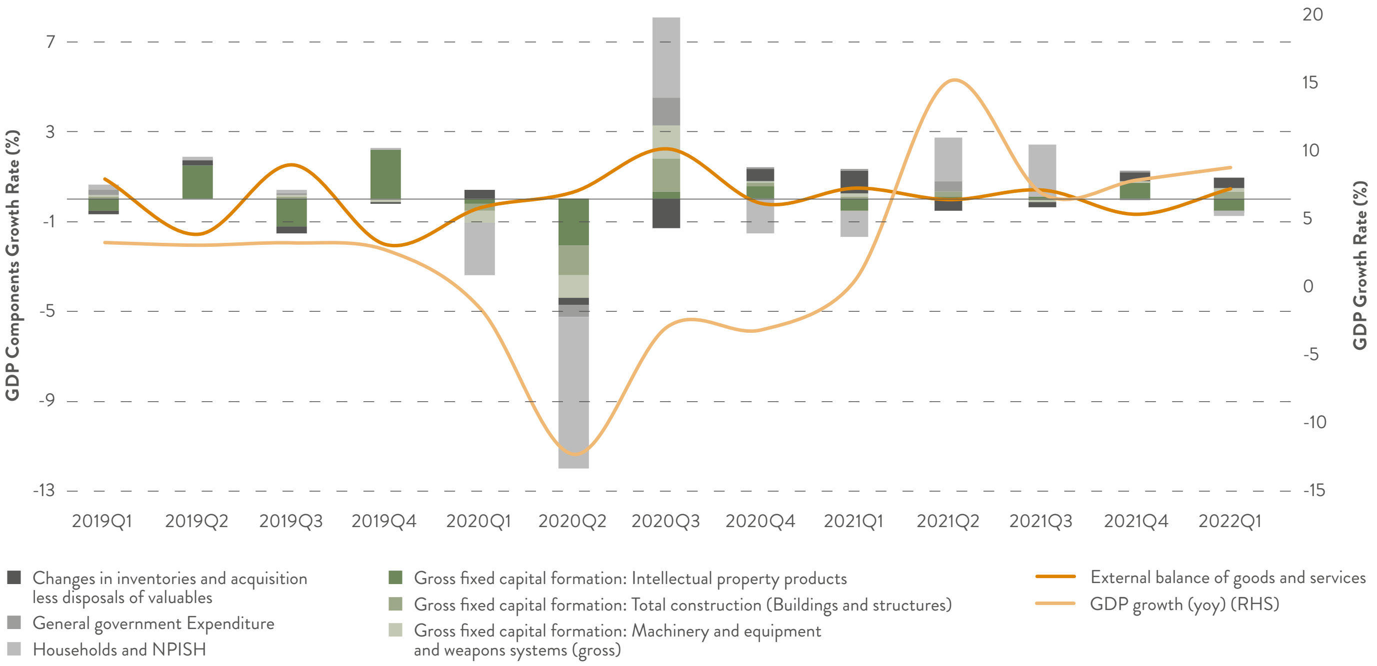
The Hypostat 2023 Foreword already underlined the rapidly changing building blocks of the European housing markets, marked by macroeconomic disruptions which are challenging the capacity of Europe's housing and mortgage industry: By the end of 2022, after nearly one year of conflict in Ukraine, Europe's economic fundamentals have been strained by increasing energy and consumer prices and political uncertainty. The increases in prices in general accompanied by the rapid increases in interest rates negatively affected the economic outlook and data in particular in the fourth quarter of the year. The downturn was slightly milder than previously forecasted: the EU economy was largely unchanged rather than the 0.5% contraction expected in autumn by the European Commission Economic Forecast. The economy is still facing various challenges but there are signs of improvement. Inflation appears to have peaked at 9.2% EA-19 and is projected to be 6.4% in 2023 and 2.8% in 2024 supported by lower energy costs. Globally, growth of around 3.1% in 2022 is estimated mainly due to upgraded projections for China and the US after largely stagnating in the first half of 2022. Public campaigns to reduce energy use and a mild start to winter contributed to a sharp fall in gas consumption. Labour markets also continued to perform strongly with the unemployment rate in the EU remaining at its all-time low of 6.1% in December 2022.

While 2021 was mainly characterised by moderate recovery from the global public health crisis, 2022 was marked by political and economic turmoil and in many Member States the economic recovery began to slow down. Based on the latest Eurostat figures, EU27 GDP grew by 3.5% in 2022, and EA-19 by 3.4%. At the beginning of the year, quarterly y-o-y growth was higher than at the end of 2021, while the second half of the year was characterised by slowing growth, albeit milder than previously estimated.

The political conflict in Ukraine and the resulting energy crisis, followed by a general increase in consumer prices, slowed the recovery that occurred from the third quarter of 2020 and at the beginning of 2021.

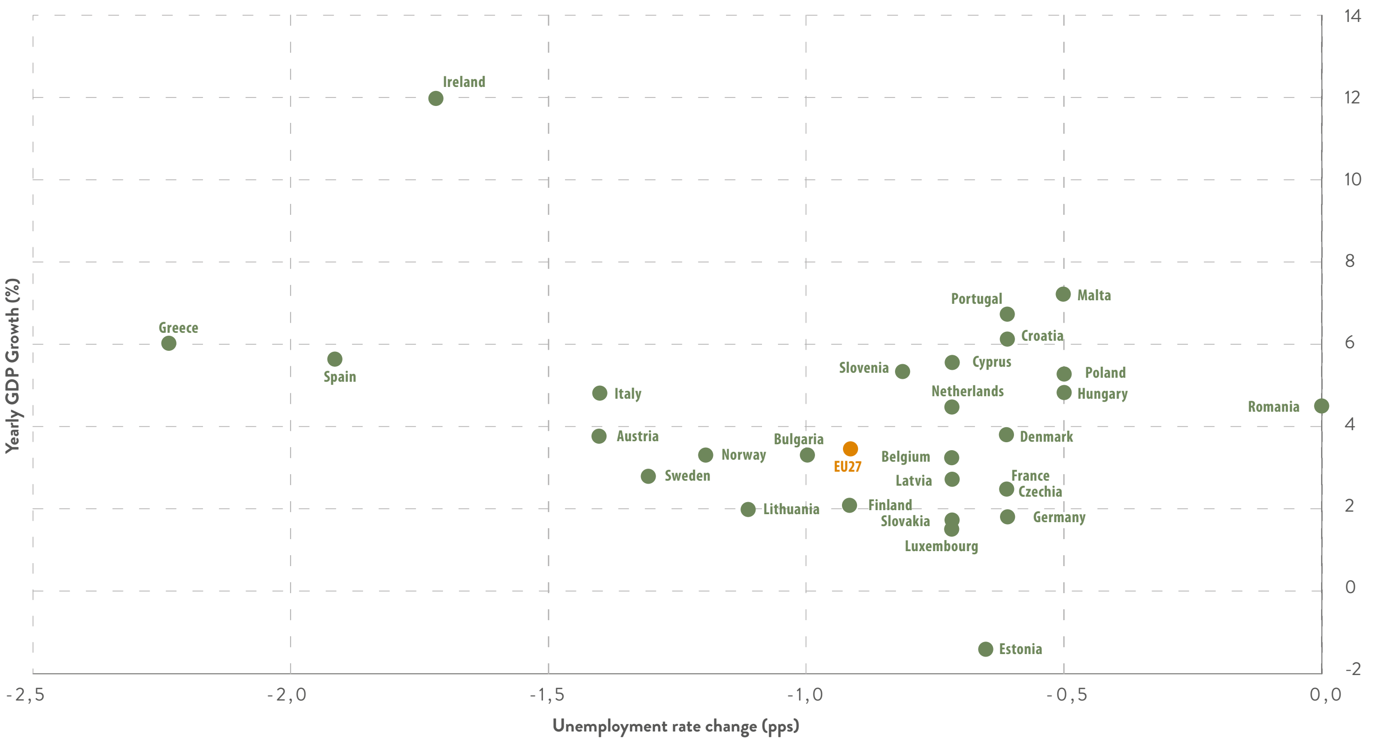
Chart 1 shows overall and sectoral GDP changes for the EA-19. In Q1 2022 the economy began, once again, to expand more rapidly, supported by growth in the external balance of goods and services, gross fixed capital formation in the construction sector and private consumption. On the other hand, gross fixed capital formation in intellectual property products and investments in the stock of raw materials, semi-finished and finished goods had a negative influence. In Q2, growth stagnated as a result of lower investment in buildings and construction and general government expenditure, while household consumption continued to increase. In the second half of the year the growth in expenditure was 1.82 pps lower than in the first half. In Q3, GDP grew by 7.1%, with the largest contributions from increased investment in intellectual property and private consumption. The external balance dropped by more than 1.3 pps, as the political crisis influenced business activity. In the last quarter, a reduction or stagnation in all GDP components, except government expenditure and the external balance, led to a further stagnation of growth. The overall absolute volume of expenditure per component remained at a relatively low level compared to 2021 and especially 2020. Most recent figures for the early stages of 2023 point to a period of even greater stagnation, with maximal expenditures of under 0.65 pps per GDP component.

CHART 1 | QUARTERLY CONTRIBUTIONS TO GDP IN THE EURO AREA (19), IN PERCENT



Source: Statistics Data Warehouse – European Central Bank

CHART 2 | UNEMPLOYMENT CHANGE AND GDP GROWTH IN 2022, PERCENT



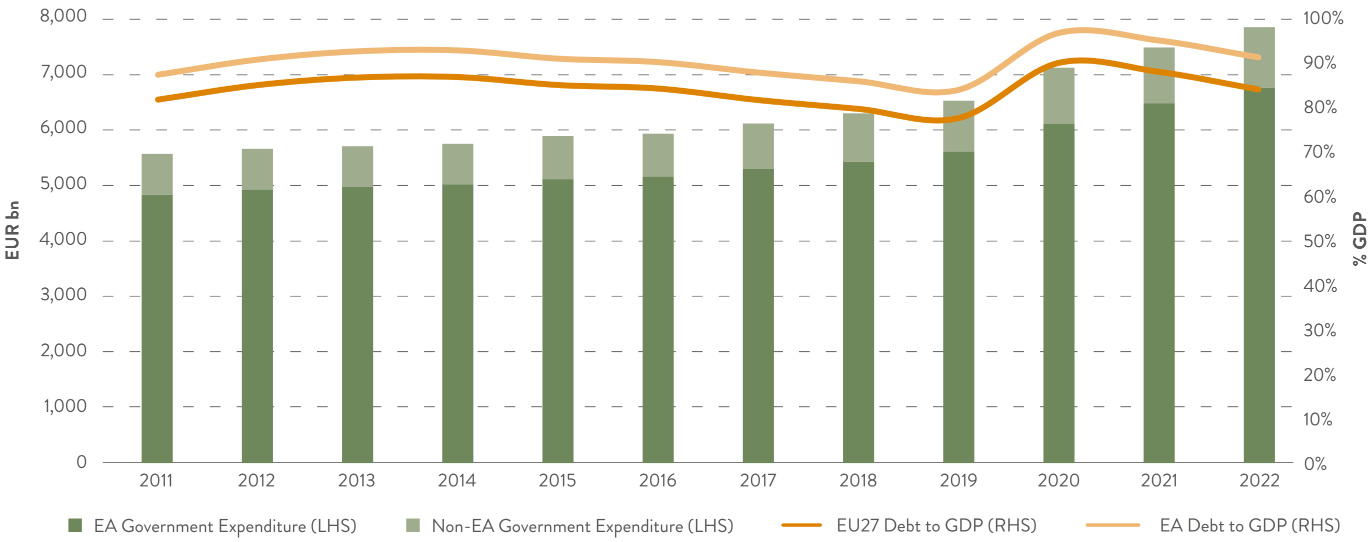
Source: Eurostat

Aggregate GDP in 2022 in the EU increased by 3.5% due to better-than-expected growth in the second half of the year. Nevertheless, some Member States saw real GDP decline in the last quarter and experienced a technical recession.

Unemployment levels fell in every country in the EU. The unemployment rate for the EU27 dropped by 0.9 pps, to 6.2%, the lowest in the history of the series (since 2000 in the EU). The absolute number of unemployed dropped in every EU country except Malta and Romania, as the labour market continued its recovery since the end of the pandemic regardless of the crisis in Ukraine. The recovery of unemployment was particularly significant in those countries (Greece, Spain, Ireland and Italy) that experienced significant contractions during the pandemic.

As Chart 3 presents, Government expenditure in the EU was EUR 7.88 tn and EUR 6.77 tn in the Euro area, a growth of 4.8% and 4.4% respectively, continuing to grow less slowly as it has since the pandemic. This deceleration was in all jurisdictions except for Belgium, Lithuania, Luxembourg and Portugal. Total government spending remained quite heterogeneous with five Central and Eastern European countries increasing by more than 10% (Bulgaria, Czechia, Lithuania, Poland and Romania). Considering debt-to-GDP figures also here a slower rate of increase was recorded among both Euro area and non-Euro area countries, which, however, remains above the long-term trends. This is due to spending to mitigate the high energy prices and continuing covid related measures, some of which continued into 2021 and 2022.

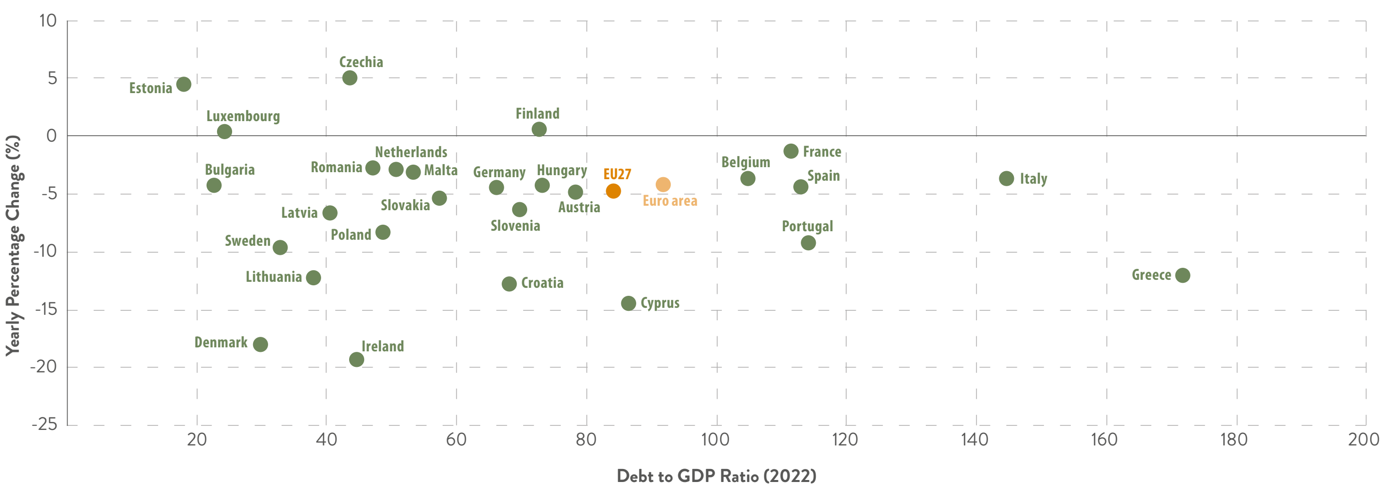
CHART 3 | GOVERNMENT SPENDING IN THE EURO AREA AND EU, NON-EURO COUNTRIES



Source: Eurostat

The EU27 debt to GDP ratio fell by 4pps to 84% by around 4 pps, a larger decrease than 1.9 pps in 2021. The overall debt to GDP ratio is still above the 2019 pre-pandemic level of 77.5%. The ratio decreased for all EU27 countries except Czechia, Estonia, Finland and Luxembourg. Fourteen countries have debt below 60%, and 6 have over 100%, mainly located in southern Europe, but also in Belgium and France.

CHART 4 | PUBLIC DEBT TO GDP RATIO



Source: Eurostat

Inflation was mainly influenced by a sharp increase in energy prices followed by an overall increase in production input and consumer prices. After an average growth rate in the Euro area of 1.68% in 2021 (harmonised consumer prices (HICP)), inflation rose by 3 pps in Q1 to 8.3% in Q4, the highest rate for over 20 years and well above the target inflation rate of the ECB. Though very high, this was slightly lower than expected and economists in the European Commission Economic Forecast (February 2023) said that the peak was reached in October at 10.6%. Since then, inflation has fallen as a result of lower-than-expected energy inflation which decreased from its share of 44% in March 2022. After that, food, alcohol and tobacco inflation contributed most to inflation figures. By the end of the year price pressure was broadly based with most components of inflation indices rising at rates above their norms suggesting that core inflation will remain higher in the near term. Inflation in the UK, measured by the general consumer price index (CPI), has exceeded the quarterly inflation rates of continental Europe since the middle of 2021. The increase in the CPI in the UK averaged 9.03% in 2022.

The inflation rate differed significantly between the EU27 countries. In Estonia it reached 19.4%, but in France it was only 5.9%. In 12 EU27 countries inflation exceeded an increase of 10%. It is noteworthy that all non-monetary union members, except Denmark and Sweden, were located in the first quantile of the countries with the highest increase in the HICP.

According to Eurostat, inflation rates in EU27 dropped in the first two quarters of 2023 to 5.9% and 5.6%, respectively, although still above the Euro area 2% ECB target rate.

Despite increasing energy and consumer prices and a new significant degree of political uncertainty, GDP still rose in 2022. Inflation increased to the highest rate for over 20 years, well above the target inflation rate of the ECB. However, inflation varied across Europe, although the increase in consumer prices was widespread. The European market proved robust against new challenges and the Euro area showed symmetrical developments and flexibility, as the central bank signaled changes in policy decisions.

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

Source: Eurostat and Office for National Statistic, UK

HOUSING MARKET

Housing markets mirror and define how our communities evolve and tackle the development of our society. In Europe, with ongoing demographic and cultural changes, environmental requirements, increased consumer mobility, and the evolution of the structure of society, the housing market, strives to provide shelter for all and at the same time frame community building and drive European integration. The monitoring of social and demographic developments allows Europe's housing markets to assess the wider framework and anticipate upcoming demand and adjust housing supply.

In this section we look at the data and the dynamics of demographic change, its movement relative to the building activity and focus on house price and demographic development in selected cities across Europe.

SETTING THE STAGE – CURRENT EVOLUTION AND FUTURE PROJECTIONS OF POPULATION IN EUROPEAN COUNTRIES AND CITIES AND PRICE DEVELOPMENTS

In light of inflation and challenge of finding adequate residential living space in Europe, the following section elaborates on the recent developments regarding population growth and the development of house prices across Europe.

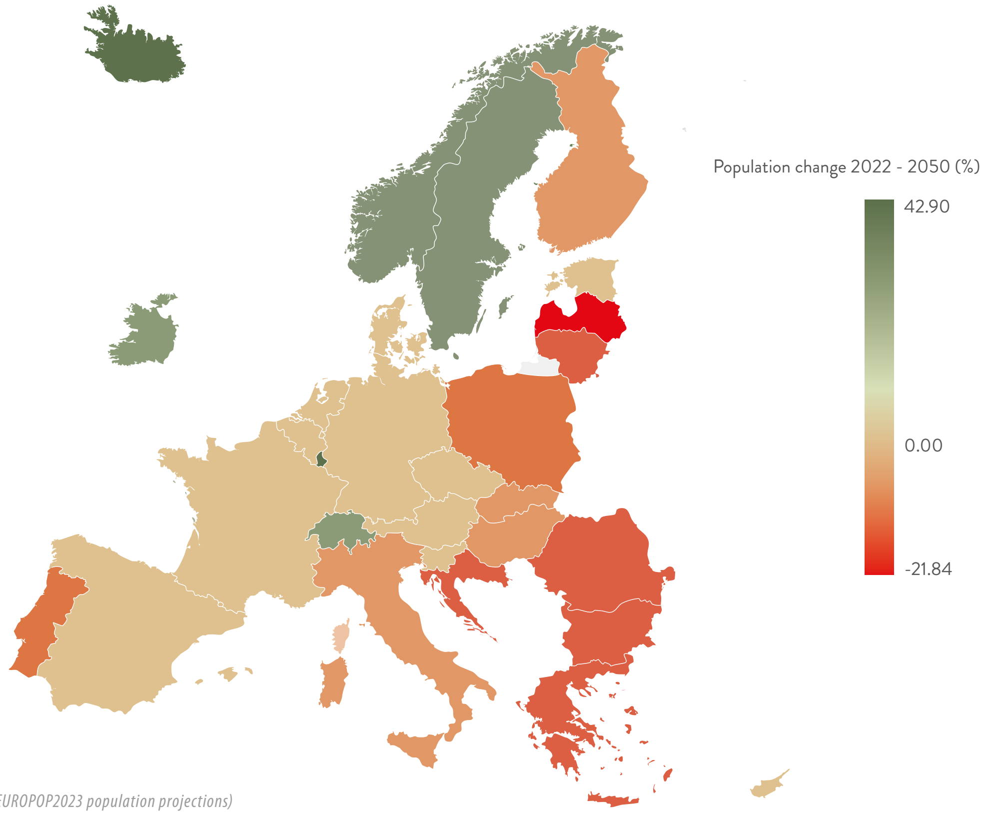
According to recent publications of the United Nations, international population growth is one of the biggest challenges in the long-term, but focusing on Europe, sheds a different light on the issue. Considering the longer-term: the population of the countries currently in the EU, grew from 354.5 mn in 1960 to 446.8 mn on 1 January 2022, an increase of 92.3 mn people. But the rate of growth has slowed gradually in recent decades. On average the population grew by about 0.7 mn people per year from 2005 to 2022, compared with an average increase of around 3.0 mn people per year during the 1960s.

The natural change of the EU population was positive – although decreasing – until 2011 when deaths started to exceed births. After 2011 the change, which remained positive until 2019, (with 7.5 million more inhabitants between January 2012 and January 2020) is therefore due to net migration. In 2020 and in 2021 net migration no longer compensated for the natural shrinkage and, consequently, the total population has been decreasing.

In 2021, 38.9 % of the EU population lived in cities,35.9% in towns and suburbs and 25.2% in rural areas. More than half of the population of Cyprus, Spain, the Netherlands, Lithuania and Bulgaria live in cities. By contrast, 44.5 % of the population in Slovenia was living in a rural area, with more than 40.0 % also in Ireland, Slovakia and Lithuania.

Chart 6 shows population trends for the next 30 years. On aggregate the EU population is expected to be constant, but at national level the changes are quite heterogeneous with a stagnation in continental and southern Europe, except Spain and significant declines in Central and Eastern Europe, in double digits in Romania, Croatia, Bulgaria, Lithuania and Latvia. Countries which are projected to have over 10% population growth over the next three decades are mainly Nordic countries such as Iceland and Luxembourg, Ireland, Sweden, Norway, Switzerland and Malta. In the largest EU economies, such as Spain, France and Germany will have population growth of 6.3%, 4.1% and 1,9% but the Italian population will fall by 2.6% by mid-century. These changes will impact current and future challenges of housing availability at country and city level.

CHART 6 | PROJECTED CHANGE IN POPULATION BETWEEN 2022 AND 2050, IN PERCENT



Source: Baseline Projections of Eurostat (EUROPOP2023 population projections)

A COMPARISON BETWEEN NEW HOUSING SUPPLY AND POPULATION GROWTH

As demographics reshape the requirements from the building stock in very different ways across Europe, actual housing markets have the power to build the long-term fundament to roof over the European society and create stable assets for a united wealth and value house suited to regional needs.
Comparing the granting of new building permits with overall population growth can show if supply is meeting demographic needs. Of course, it does not take into account existing housing imbalances in various countries and, as this is a country-wide analysis there is no consideration of the location of the new building permits and location of the new population growth.

Charts 7 to 10 show the overall population growth and the building permits issued for Northern Europe, Continental Europe, Central/Eastern Europe and Southern Europe.

Chart 7 shows that in Northern Europe, the development of new buildings was quite congruent with the increase in the population and have the most positive difference during the pandemic when population growth decreased, and the issuance of new building permits even increased after a slight decrease in 2019.

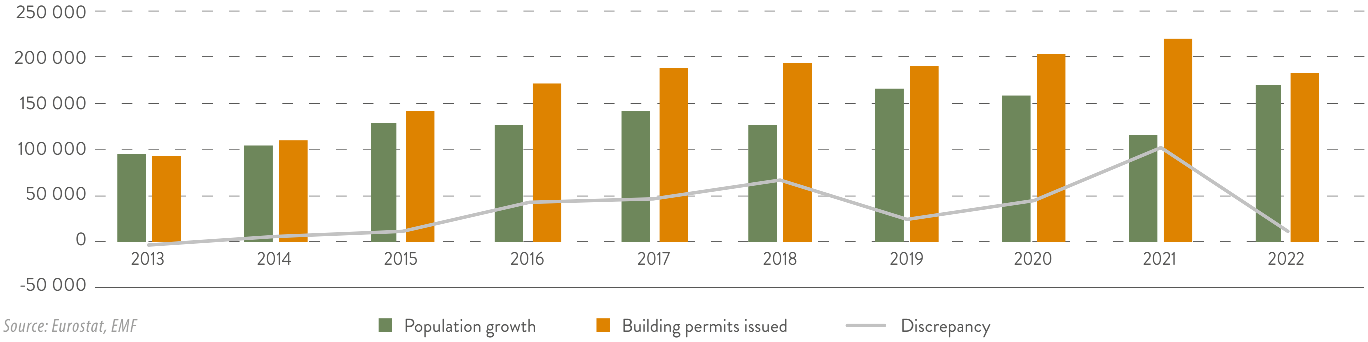
As population growth slowed in Continental Europe after 2016, the number of building permits started to exceed population growth again in 2017 after trailing it for three years. In general, the number of building permits issued was stable over the ten years.

The picture is especially different in Central and Eastern Europe, where the population has declined since 2014 while the issuance of new building permits started to increase gradually. The decrease in population in 2022 was close to 900 td inhabitants and could present a challenge for Central and Eastern European countries.

In Southern Europe the variation in population and building permits is more significant than in the other parts of Europe. Chart 9 presents several trend breaks, but still exhibits an overall higher issuance of building permits than population growth.

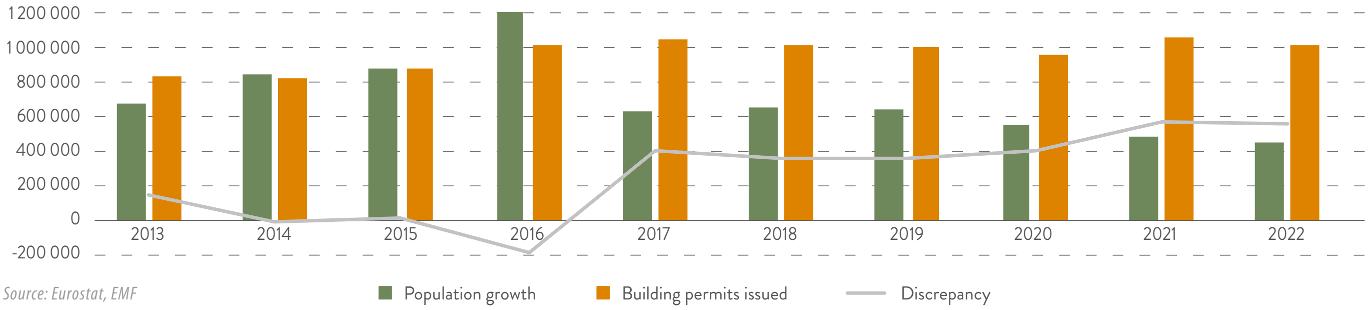
The picture of the European housing market cannot be derived from isolated single indicators, as there are many variables with a complex, multidimensional and inter-dependent relationship. But examining and comparing single components helps to capture aspects of this multidimensionality. The comparison of population growth and new housing hints at a general positive discrepancy between the permits issued and population growth, but with different degrees in the various European regions.

CHART 7 | POPULATION GROWTH AND BUILDING PERMITS ISSUED IN NORTHERN EUROPE (DENMARK, FINLAND, SWEDEN, IRELAND, ESTONIA, LATVIA AND LITHUANIA)



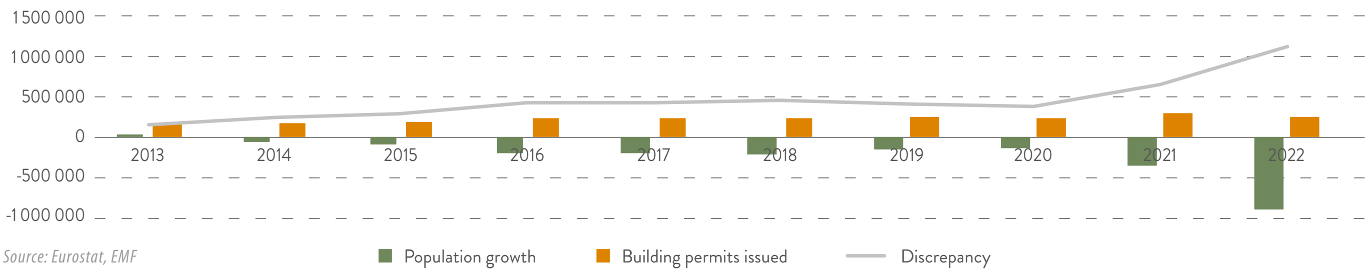
Source: Eurostat, EMF

CHART 8 | POPULATION GROWTH AND BUILDING PERMITS ISSUED IN CONTINENTAL EUROPE (AUSTRIA, BELGIUM, FRANCE, GERMANY, LUXEMBOURG AND NETHERLANDS).



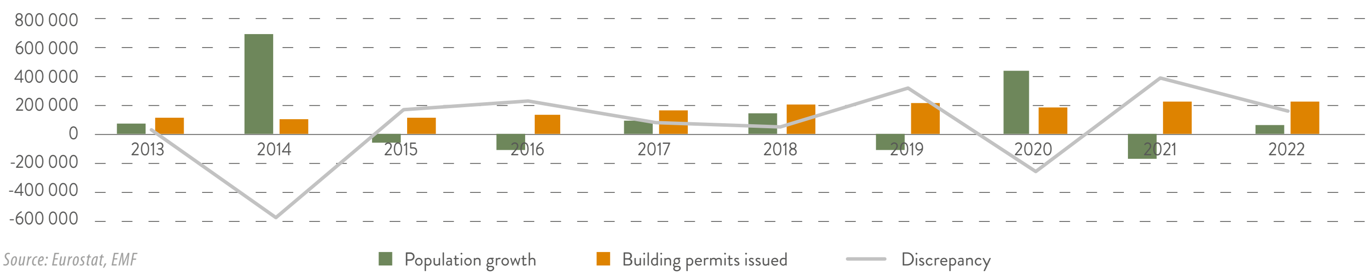
Source: Eurostat, EMF

CHART 9 | POPULATION GROWTH AND BUILDING PERMITS ISSUED IN CENTRAL AND EASTERN EUROPE (BULGARIA, CZECHIA, HUNGARY, POLAND, ROMANIA, SLOVAKIA, SLOVENIA AND CROATIA)



Source: Eurostat, EMF

CHART 10 | POPULATION GROWTH AND BUILDING PERMITS ISSUED IN SOUTHERN EUROPE (CYPRUS, ITALY, SPAIN, PORTUGAL, GREECE AND MALTA)



Source: Eurostat, EMF

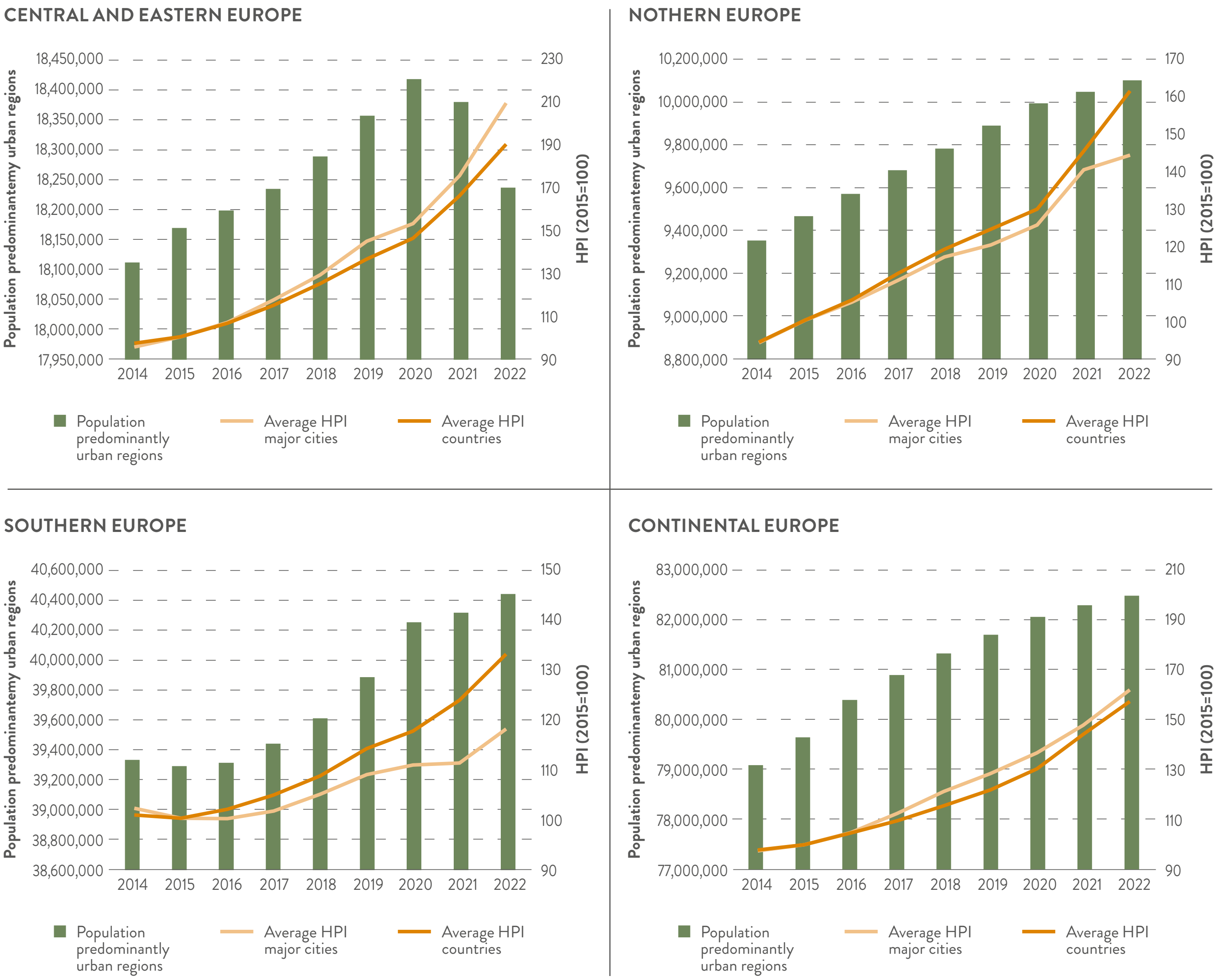
HOUSE PRICES AND POPULATION IN URBAN AREAS AND SELECTED CITIES

Next to the development of the building stock in comparison to the population, the demand for housing in predominantly urban areas is one further key point of public attention in recent years in Europe.

Chart 11 shows, by region, the average house price indices for the largest cities and the general regions along with the growth in predominantly urban regions population. The number of people living in urban areas in recent years has increased in every region except Central and Eastern European, - echoing the general decrease in population there. House prices all over Europe, in urban and rural areas, increased significantly over the recent years with a large price jump in 2021 in particular. Since 2015 (the base year of the HPIs) house prices have increased most rapidly in urban areas in Continental and Central Eastern Europe. In Northern Europe there is no clear trend between urban and rural prices. In Southern Europe prices increased more than in the major cities.

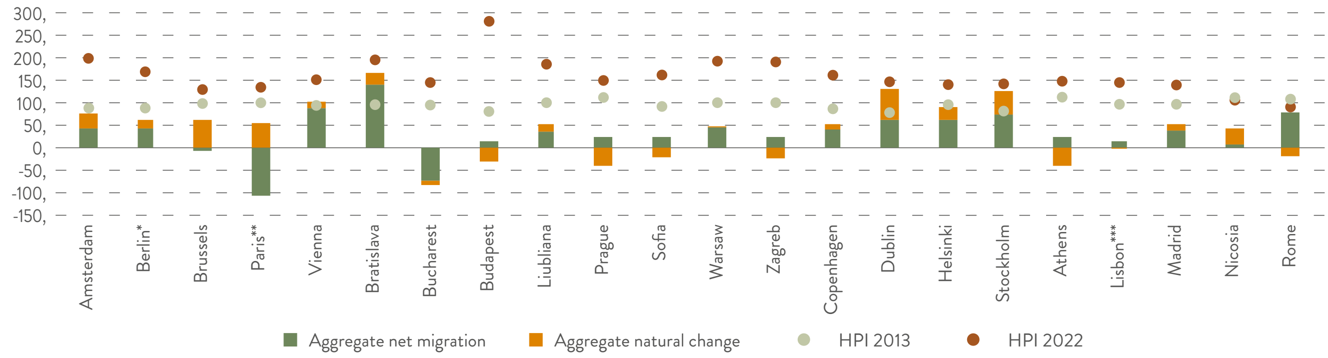
In the cities the house price and demographic dynamics have changed over the last 10 years and as with the country-wide analysis, it is difficult, due to the heterogeneity in the European housing demand and supply, to capture a clear trend. In Chart 12, compares the HPI and population change for the European capitals, breaking down the population change into natural factors (the difference between births and deaths), and net migration. House prices have increased in every European capital over the last decade, except for Nicosia and Rome. Unlike the country level analysis, the population in most capital cities has increased either due to net migration, such as Vienna, Bratislava, Stockholm or Helsinki or by natural change, such as Brussels. It does not seem that a higher HPI is explained by a larger increase in population, even cities with a decreasing population have rising house prices. In Budapest, for example, house prices tripled over the last decade but the population declined. It is again possible to identify diverse and multidimensional market structures, however the results are again highly dependent on the underlying indicator selection and chosen timeframe.

CHART 11 | TOTAL POPULATION IN PREDOMINANTLY URBAN REGIONS AND AVERAGE HPI IN MAJOR CITIES AND EUROPEAN REGIONS



Source: Eurostat and European Mortgage Federation

CHART 12 | DEMOGRAPHIC CHANGE AND HPI IN EU CAPITAL CITIES (2013-2022)



Source: Eurostat and European Mortgage Federation

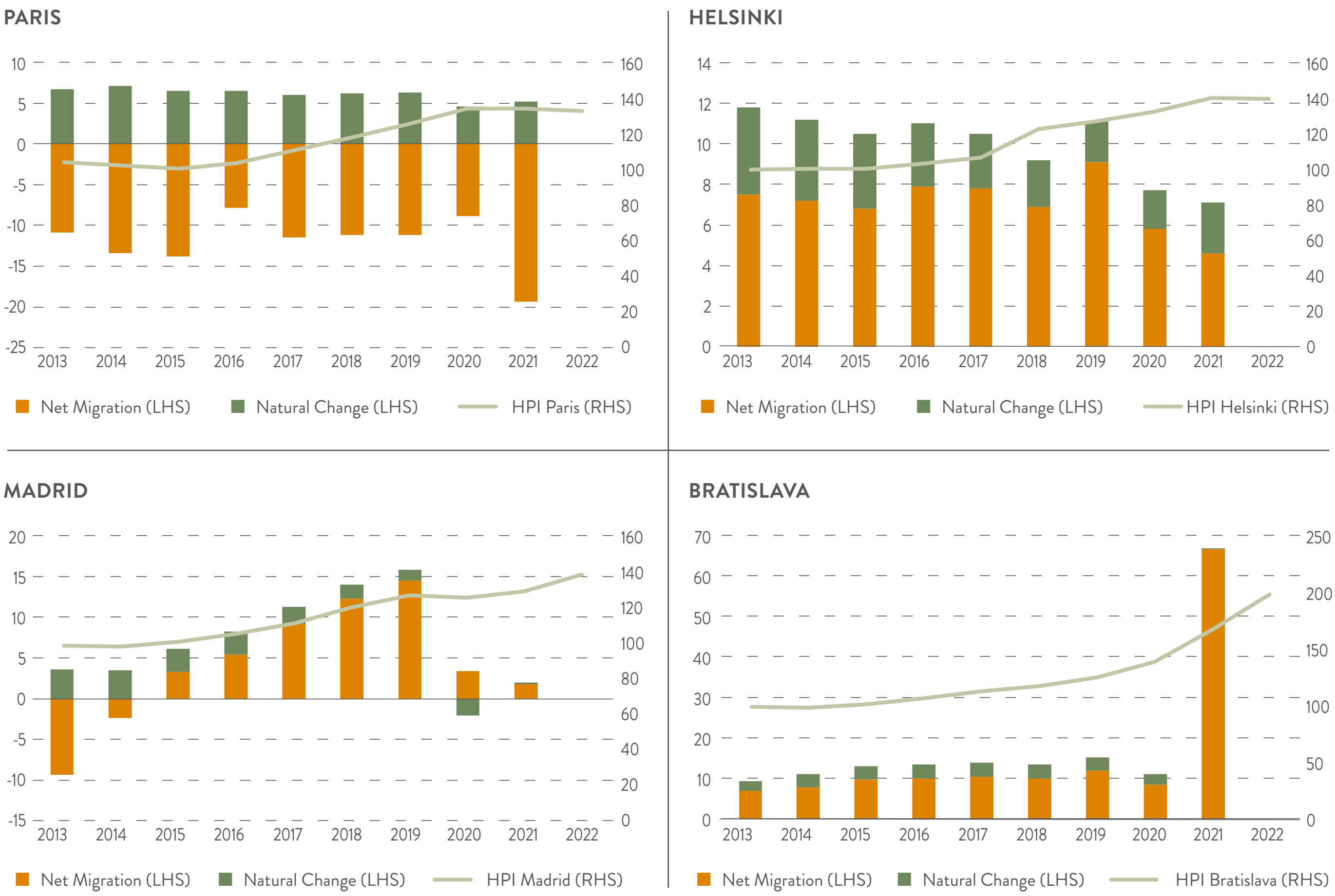
Note: Sorted by geographical location

Note: Aggregate net migration and aggregate natural change are expressed per 1000 of the average population

** takes into account Berlin and the six largest German cities* *** latest HPI 2021* **** latest HPI 2020*

As aggregated house prices showed a complex and diverse picture, the following analysis looks at some specific sample cities, namely Paris, Helsinki, Madrid and Bratislava. Even on a city level the correlation between house price development and population change is difficult to capture. Especially in Paris the population declined while housing process increased further. For the other European cities, populations have risen since the crude rate has been positive since 2015 but faced a slowdown in 2020 as the pandemic influenced living conditions. The HPIs exhibit an overall positive trend, moving in line with population growth. From 2020 HPI in Bratislava increased significantly above average, while crude rate peaked in 2021.

CHART 13 | POPULATION CHANGE BY CRUDE RATE (CHANGE PER 1,000 PERSON) AND CITY HPI



Source: Eurostat and European Mortgage Federation

It does not seem that demographics alone can explain house prices at a country or city level, but that economic and social trends also have an impact. The number of new building permits seem mostly to be in line with population growth, despite existing housing shortages in several areas and the location of the building permits may not match where buildings are needed. Besides the well-known policy concerns around housing shortages in the economic heartland of Europe, there are also large swathes of areas where the opposite dynamics is evident. In any case keeping an eye on the demographic evolution is an important factor to be taken into consideration for the long-term trends. **In conclusion, the complexity and diversity of European housing markets is difficult to assess based on isolated indicators and further research is desirable. But as house prices are generally increasing, affected also by recent inflationary trends; a further focus of attention should be on these increases and decreasing affordability of housing and the subsequent challenges for society and economy. It is therefore of paramount importance that these challenges are tackled through concerted action taking into consideration local realities and needs, but which are concerned at European level.**

HOUSING SUPPLY DEVELOPMENTS

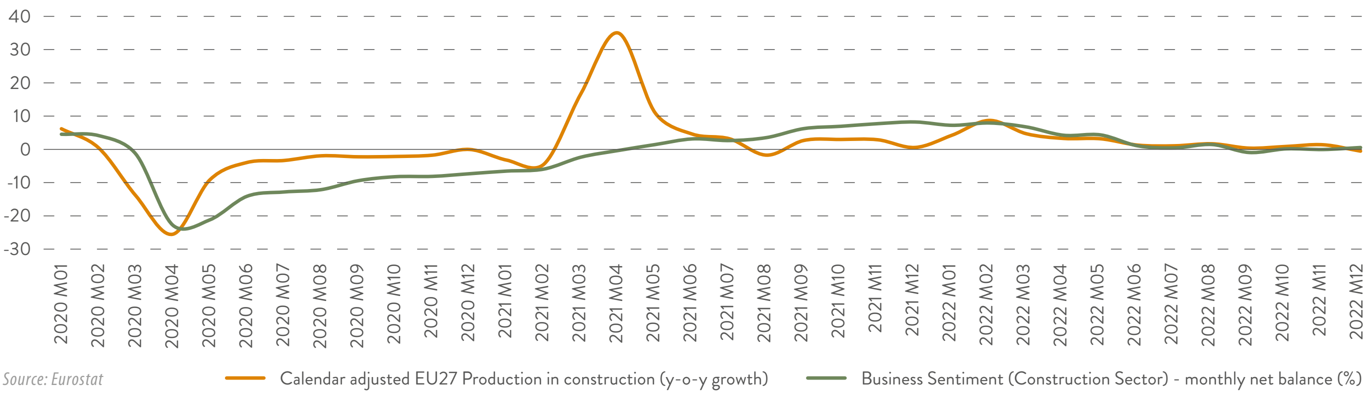
The homes and cities we design and live in are the places where society is progressing by accumulating human ideas and visions. New buildings are also an indicator for how construction is aligned with the latest environmental standards, as a complement to building renovation. Therefore, the following sections examine recent developments in Europe's construction activity.

European housing construction activity stagnated in 2022, in line with overall macroeconomic trends. The significant increase in construction costs dampened the supply side, while increased economic uncertainty and consumer prices combined with rising interest rates depressed demand.

New investment in buildings, measured in terms of gross fixed capital formation (GFCF) in the dwelling sector, increased on an aggregate level , according to Eurostat. Indeed, after the contraction experienced in 2020, EU27 total dwelling investment volumes grew significantly by 14.7% y-o-y in 2021 and further by 11.0% y-o-y in 2022, for a total amount of more than EUR 922 bn. All EU27 Member States saw an increase in 2022, except Denmark where investments declined by -1.8. Greece, Ireland, and Lithuania experienced the highest yearly growth of total investment in dwellings of 45.7%, 42.7% and 39.8% respectively.

Business sentiment[1] in the European construction sector, as calculated by Eurostat's Business and Consumer Confidence Survey, shows that business expectations stagnated during the course of 2022 as indicated in Chart 14. After a steady recovery from the pandemic low at the beginning of 2020, the confidence indicator decreased from the beginning of 2022, due to increasing construction prices and decreasing demand expectations.

CHART 14 | EU27 CONSTRUCTION BUSINESS SENTIMENT (MONTHLY NET BALANCE) AND EU27 PRODUCTION IN CONSTRUCTION (Y-O-Y CHANGE)



Source: Eurostat

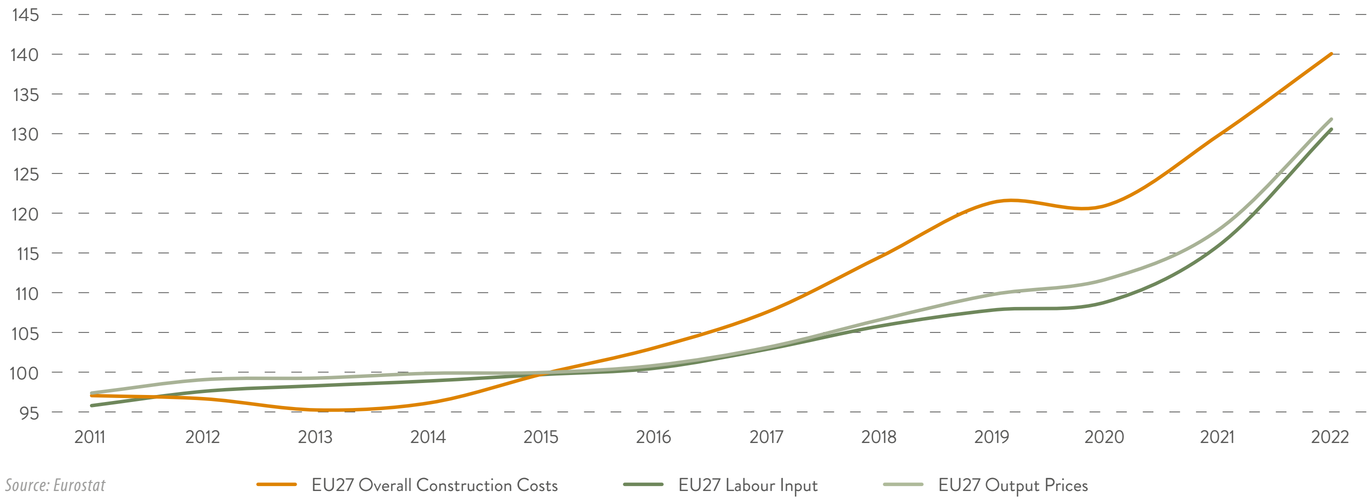
Regarding EU27 construction activity, as published by Eurostat, show that Building construction opened 2022 with an increase of 4.6% y-o-y in January 2022, peaking in February at 9% y-o-y, and then steadily decreasing until July. In December 2022 construction activity contracted again by -0.2% y-o-y.

Given the supply-side shortages, construction costs of residential buildings increased by 12.6% in 2022, a significant increase over the previous year of 6.3 pps, continuing the upward trend since the GFC, although 2022 saw the highest single-year increase since the introduction of the Euro. The biggest cost increases were in Bulgaria (53.6%), Malta (24.9%) and Czechia (20.4%).

[1] The economic sentiment indicator, according to Eurostat, is composite indicator which tracks GDP growth at different levels in Europe (i.e. EU27, EA or Member States). The scores published each quarter are weighted averages of the balances of replies to selected questions addressed at companies of five different economic areas: industry (with a 40% weight), services (30%), consumers (20%), retail operations (5%) and construction (5%). For the purpose of this report, only the results that concern the construction sector have been considered. Regarding the balances, or net scores, shown here, are the difference between the percentages of positive and negative replies. A positive balance would indicate growth potential, whereas a negative net score would point to a contraction. The scores are seasonally adjusted.

Labour costs in construction increased further in most EU Member States, in line with previous trends, and at a higher level than other components such as materials, as seen in Chart 15. Even though Eurostat has not yet reported all 2022 data for all 27 Member States, it is apparent that average EU27 labour costs grew by approximately 7.9% in 2022, the highest increase since 2008. Labour costs have expanded consistently since the GFC, as have both overall and output prices, although growth rates have moderated significantly since 2009, in the aftermath of the financial downturn, and more recently in 2020, in the midst of the pandemic. Significant labour cost increases occurred in Ireland (25.1%) and Hungary (22.7%). It is worth noting that labour costs actually decreased in Slovakia by -3%.

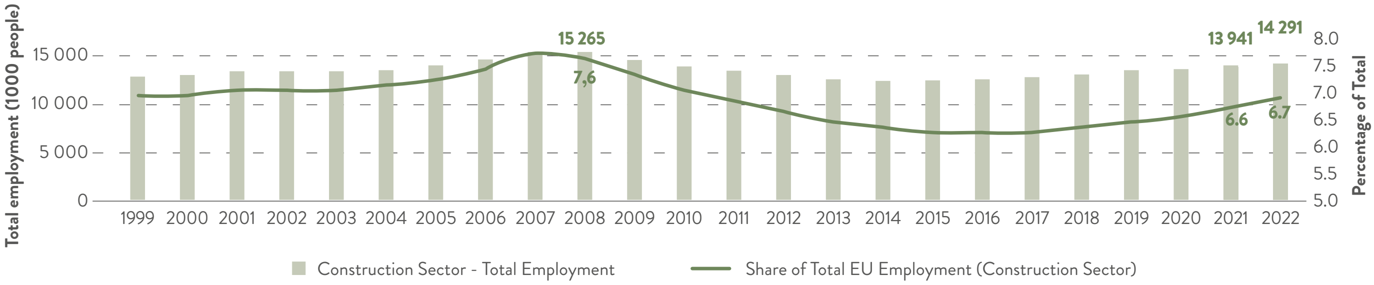
CHART 15 | EU 27 CONSTRUCTION COSTS INDICES (OVERALL, LABOR COSTS AND OUTPUT PRICES), INDEX 2015=100)



Source: Eurostat

The rise in labour costs took place as the number of workers in the construction sector increased slightly. In 2022, EU27 construction sector employees comprised 6.7% (almost 14.3 mn workers) of the entire workforce, as shown in Chart 16, surpassing the total number of employees of 2010. It is apparent however that after 8 years of continuous contraction (2008-2015), since 2017 the share of employment in the construction sector has been increasing gradually, even though it is still 0.9 pps below the peak of 7.6% of total European employment reached in 2007 and 2008.

CHART 16 | TOTAL NUMBER OF EMPLOYEES (CONSTRUCTION) & SHARE OF CONSTRUCTION EMPLOYEES OF EU27 TOTAL WORKFORCE



Source: Eurostat

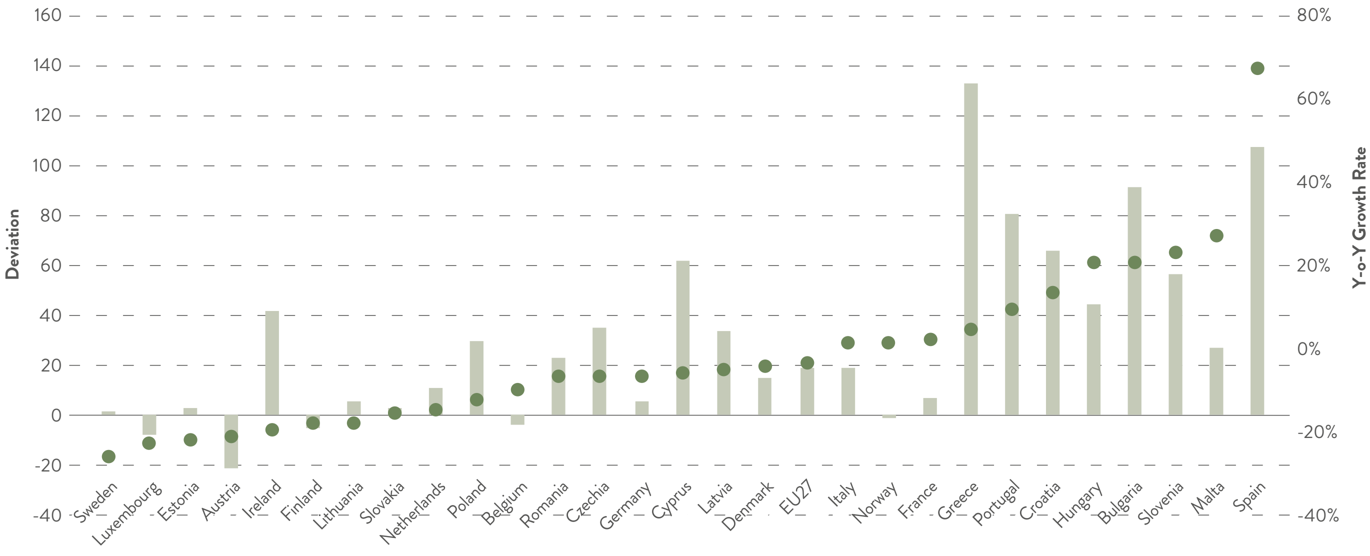
Overall, there was an increase in investment and construction costs in 2022. The growth rate in investment slowed compared to 2021 while cost inflation increased significantly. The activity recovery trend continued into the beginning of 2022 but declined during the course of the year as costs started to increase and economic uncertainty grew.

Next to the input factors of building construction, the number of newly issued **building permits** affecting the accessibility of the future building stock, as already specifically analysed in the previous chapter. The number of newly issued building permits in the Hypostat country sample decreased by 2.1% in 2022 y-o-y, to a total amount of approximately 1.9 mn, while the number of building permits in the EU overall decreased by 4.0% in 2022 y-o-y according to Eurostat.

The number of permits issued decreased in all jurisdictions except for Italy, Norway, France, Greece, Portugal, Croatia, Hungary, Bulgaria, Slovenia, Malta and Spain (Chart 17).

Spain in particular shows an increase in newly issued building permits of 66.8%. On the other hand, Sweden, Luxembourg and Estonia record a contraction of 26.1%, 23.3% and 22.7%, respectively.

CHART 17 | BUILDING PERMITS EVOLUTION (2013-2022)



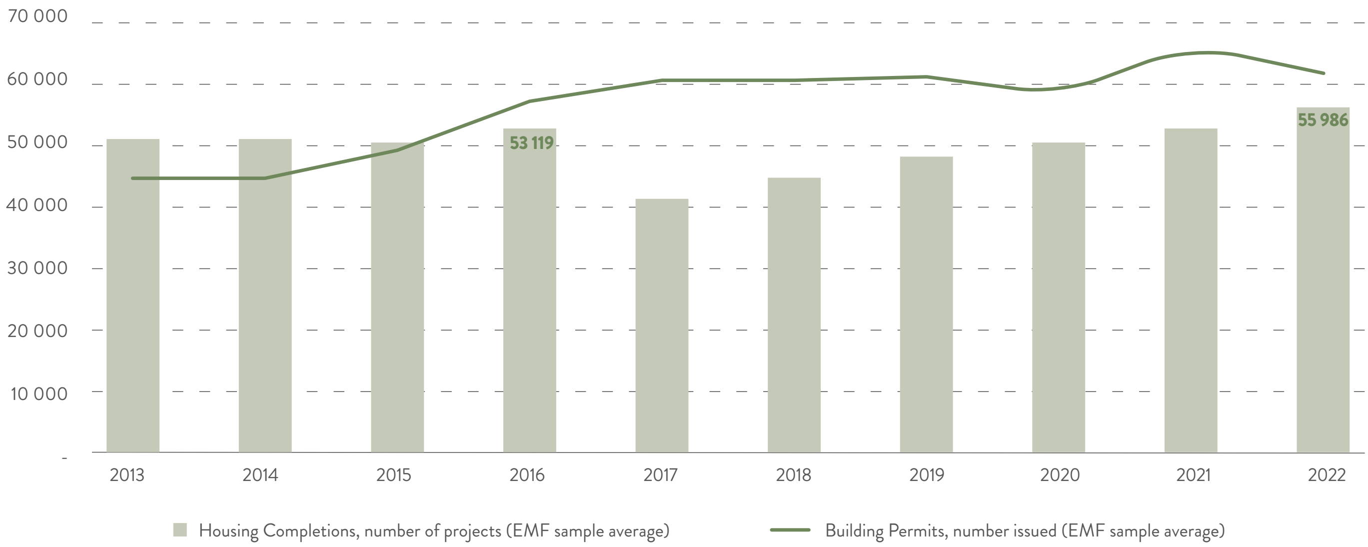
Source: European Mortgage Federation, Eurostat

Note: in this figure, building permit issuance deviation refers to the statistical difference between 2022 building permit volumes and the average unweighted volumes of the 2013-2021 period.

Most countries in the EU had witnessed an increase in the issuance of building permits over the last 10 years, apart from Luxembourg (-7.8%), Austria (-21.2%), Finland (-4.2%), Belgium (-4.0) and Norway (-1.1%). Permit issuance more than doubled in Greece (133.4%) and Spain (107.2%).

Comparing permits issued with **housing completions** (Chart 18), permits issued fell but housing completions continued to increase. Completions fell significantly in 2017 and recovered in 2022 back up to 2016 levels. From 2016 on issued building permits exceeded completions.

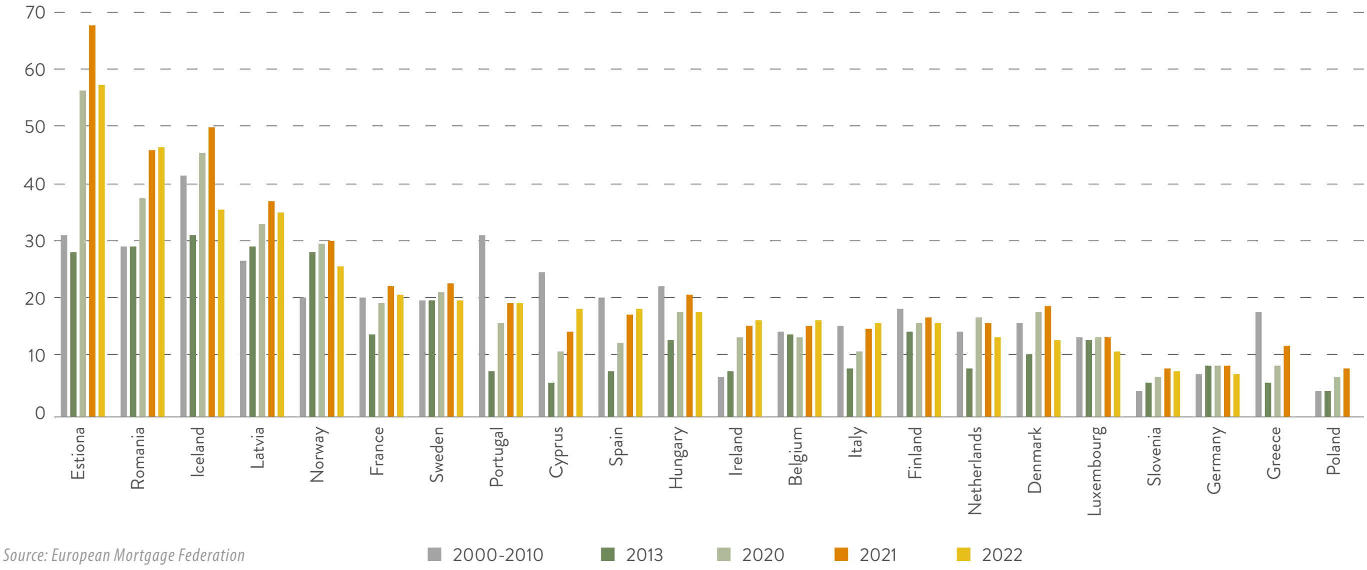
CHART 18 | BUILDING PERMITS AND HOUSING COMPLETIONS EVOLUTION (2013-2022)



Source: European Mortgage Federation

The number of residential transactions (Chart 19) in the EU27 decreased to approximately 5.1 mn (a decrease of 8.5%), following a steep increase in 2021 of 17.9%. The jurisdictions that saw the largest decrease were Denmark (-31.0%), Iceland (-29.2%) and Germany (-20.0%). The number of transactions per 1,000 adults increased in Cyprus (28.3%), Ireland (7.7%), Spain (6.0%), Italy (5.0%), Belgium (4.5%) and Romania (0.2%). With 57 transactions per 1,000 inhabitants Estonia recorded the highest ratio, while Germany recorded the lowest value with 6.9 transactions per 1,000 adults.

CHART 19 | RESIDENTIAL TRANSACTIONS PER 1,000 ADULTS

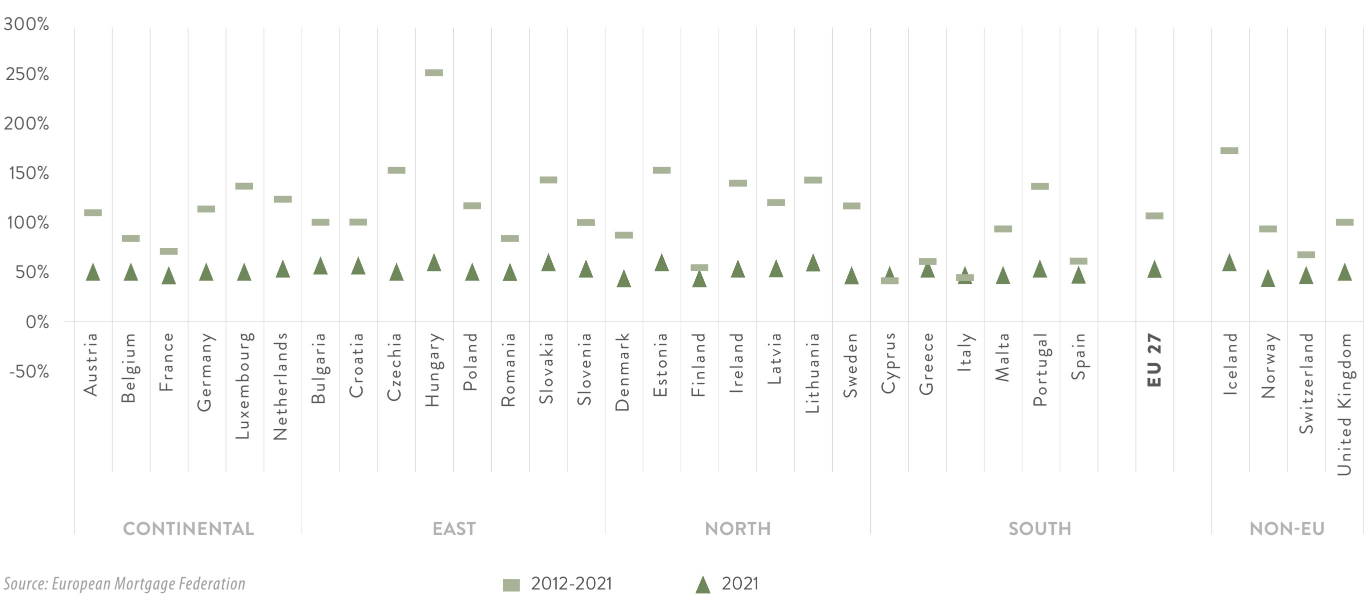


Source: European Mortgage Federation

FURTHER EVALUATIONS ON HOUSE PRICES IN EUROPE

Housing affordability is one of the main concerns of European households and policy makers, therefore, a further analysis of the current and longer-term price development is provided in the following. Between 2013 and 2022, the average European house price increased by over 70%. In Northern Europe: Estonian prices rose by 126.9%, in Lithuania by 115.2% and in Latvia by 87.9%. In Ireland prices increased by 113.0% over the same period, while Sweden and Denmark experienced an increase in house prices by 85.7% and 47.9%, respectively. In Finland, house prices from 2013 to 2022 increased by the lowest amount in the northern region of 7.8%. Every country in Continental Europe area also experienced house prices increases over this ten-year period. The largest increase was in Luxembourg, where prices more than doubled (107.5%), followed by the Netherlands, Germany and Austria, whose house prices rose by 92.6%, 81.2% and 77.2%, respectively. The rest of the region recorded lower growth: Belgian house prices rose by 43.9% and French house prices by 27.6%. Every jurisdiction in Central and Eastern Europe has also experienced an increase in prices over the last decade. For example, Hungarian, Czech and Slovakian house prices grew by 249.0%, 128.0 and 115.1% respectively. In Poland and Slovenia, Bulgaria and Croatia nominal house prices increased by more than 60%, while prices in Romania increased by 44.8%. Prices over this longer time horizon in Southern Europe were heterogenous. From 2013 to 2022, prices decreased in Cyprus (down by 6.3%) and Italy (down by 2.0%). This contrasted with increases in Spain and Greece (both 16.4%), Malta (56.7%) and Portugal (106.6%). Outside the EU, prices increased by more than 50% in Norway, the UK, and Iceland (where prices grew by more than 150%). In Switzerland house prices grew by only 26.3%.

CHART 20 | HOUSE PRICE INDEX GROWTH (2022 YEARLY GROWTH RATE & 2013-2022 GROWTH)



Source: European Mortgage Federation

House prices in capital cities developed in very different ways across Europe. The capital premium[2] - the additional price borrowers pay for dwellings in the capital – shrank in 2022: overall house prices grew by 11.3% y-o-y, but in the capitals by just 10.6%, 0.7 pps less than the HPI of the total countries. However, the picture is mixed with prices in the capital still rising faster in some countries. As already pointed out in previous sections, general house price developments were even more diverse in 2022 than in previous years, regarding both entire countries, as well as their capitals.

Comparing Denmark and Finland, overall house prices grew by 1.0% and 0.3% respectively on a yearly basis, while prices in the capital region decreased in Denmark by 0.3% and by 0.5% in Finland. In Sweden and Ireland house prices rose by 4.3% and 12.3%; prices in their capitals also rose, by 3.5% and 10.3%, respectively.

Moving on to Continental Europe, all relevant jurisdictions experienced an increase in house prices. Especially the Netherlands, which saw the highest HPI growth, reported a significant increase in national prices of 13.6% in 2022, while Amsterdam prices in particular expanded albeit by a comparatively slower 11.0%, continuing the general trend of the previous year. In Austria, the national prices rose by 10.3% in line with Vienna, that saw an increase of 9.7%.

In most countries considered in this report, capital house prices grew slower than the national average. The differences, however, varied significantly. For instance, Bulgaria (1.3%), Croatia (5.2%), Greece (2.0%) and Spain (2.5%) report positive capital premium growth rates.

Denmark, Finland and France are the only European countries which reported decreases in their capital house prices of 0.3%, 0.5% and 1.1%, respectively.

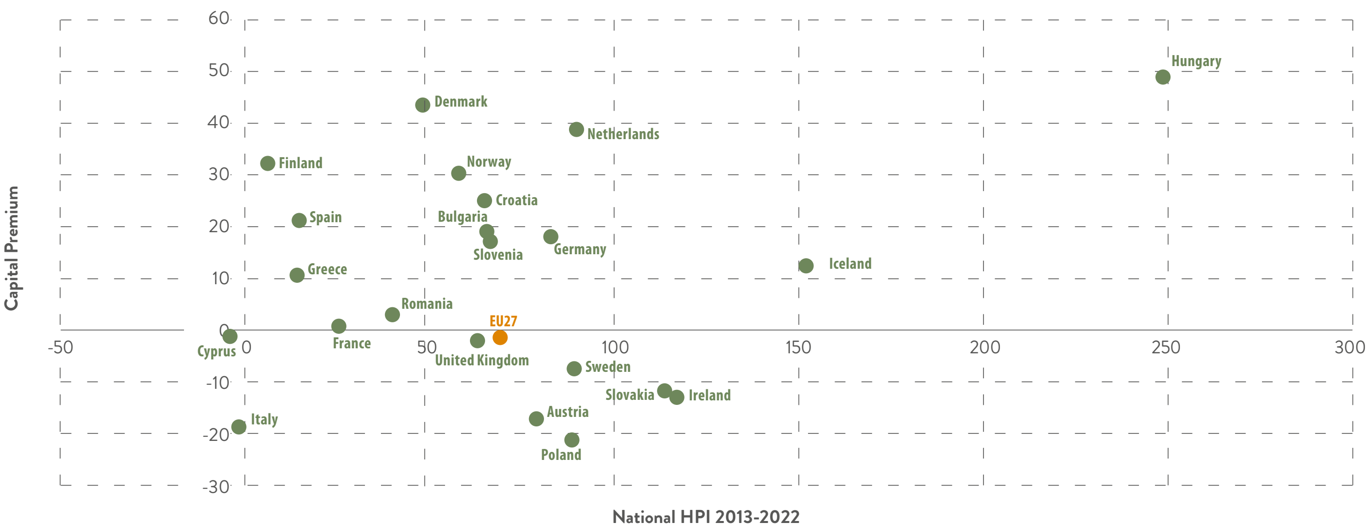
Over the long-term, comparing figures to those of 2013, EU27 national house prices have grown by 71.0% since 2013, 2.6 pps higher than average capital city house prices.

However, considering a ten-year timeframe, there are several countries where the capital prices have increased significantly more than the national ones. Capital HPIs increased by more than 30 pps over the national average in Denmark, Finland, Hungary and the Netherlands.

Lastly, countries such as Cyprus, France, Romania, Iceland and the UK have recorded a slight premium (between +/-5 pps), which means that the capital prices and those nationally were relatively aligned.

All in all, the heterogenous nature of the European housing markets can be underlined, while also clusters of common movements can be identified. Therefore, the yearly changes seen in 2022 and the longer-term evolution of national prices relative to capital city prices would indicate that the prices in urban areas in and around European capitals continue to expand, yet at a slower pace, possibly because borrowers and/or homeowner's needs and preferences, in addition to the issue of affordability, are helping other areas develop their real estate options. Further research would be needed to ascertain this in any case.

CHART 21 | CAPITAL CITY HOUSE PRICE VS NATIONAL COUNTRY PRICES (2013-2022 % CHANGE)



NOTE: the city index for Germany is an average value of the seven largest cities.

Source: European Mortgage Federation

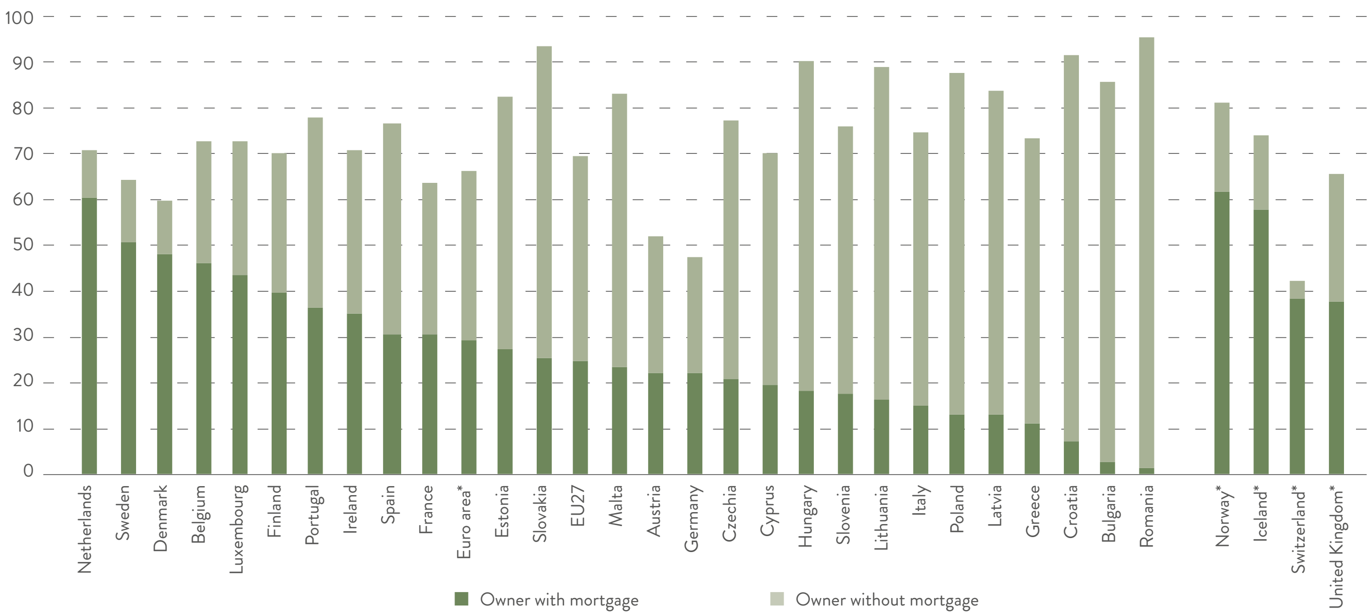
[2] The capital premium is the difference between a country's average national HPI and that of its capital city. This difference can be calculated both as an index value or as a growth rate. A positive score would indicate that house prices in the capital are higher (or increased at a faster pace) than those of rest of the country, whereas a negative reading would suggest that house prices in the rest of the country are higher (or changed at a comparatively faster pace) than those reported in the capital. The scatter plot chart in this section considers the different rates of growth between the two metrics.

MORTGAGE MARKETS

After housing supply, the availability of housing finance is a key determinant of ensuring the long-term affordability and the ability of the housing market to act as a mechanism for the transmission of fiscal and monetary policy. In this times, when the purchasing power of households is already under pressure from rising consumer prices and decreasing real savings, the challenges are escorted by unprecedent opportunities of new consumer mobility and increasingly integrated financial markets and housing finance and free flows of capital is of ever greater importance.

The share of Europeans owning their home decreased slightly, by 0.8 pps, to 69.1% in 2022, 1.9 pps lower than the 71% peak in 2012. The percentage of households with mortgage loans decreased by 5% to 24.7% y-o-y, while the percentage of owners with no outstanding mortgage loan increased slightly by 1.6% to 44.4%. The highest level of home ownership was in Romania (94.9%), followed by other countries in Central and Eastern Europe. The lowest levels are in Switzerland, Germany, Austria and Denmark, all below 60%. The mortgage market remains less developed in Central and Eastern Europe, whereas especially in the Nordics and in Continental Europe the number of mortgage-holders is larger.

CHART 22 | HOMEOWNER SHARE AND MORTGAGE HOLDERS IN 2022, IN PERCENT



NOTE: countries with an asterisk * Refer to Latest Available Data, as There is no 2022 Data Available.

Source: Eurostat

Over the last decade, as shown in Chart 23, the proportion of European homeowners with a mortgage has decreased by around 1 pps, while the percentage of homeowners without mortgages or loans decreased by 0.5 pps. Although most Member States experienced a decrease in homeownership, in Central and Eastern Europe these decreases were more significant. Similarly in Germany and Austria homeownership decreased by -5.9%. On the contrary, homeownership grew in several countries, without a clear geographical pattern - the sharpest increases were in Poland, Portugal and the Netherlands. The number of mortgage borrowers, increased across several jurisdictions during the 2013-2022 period. The largest increase took place in Slovakia (+15 pps), although there were also significant increases in Lithuania, Estonia, Slovenia, Malta and others. Furthermore, the number of mortgage borrowers increased in jurisdictions that saw a decrease in the homeownership rate, particularly Cyprus, Lithuania and Czechia, as Chart 23 shows.

The average European adult has a mortgage loan of more than EUR 18,433, an increase of 3.7% from 2021. Luxembourg has the most mortgage debt per capita at over EUR 85,000. In Denmark, Sweden, and the Netherlands the mortgage debt per capita is over EUR 56,000. In contrast, Bulgaria and Romania, citizens have less than EUR 1,700 per capita outstanding and less than 2.5% of homeowners have a mortgage. Comparing the average mortgage per capita to the proportion of homeowners with mortgages shows that the average mortgage debt per capita in Luxembourg, Denmark, Sweden and Germany is over EUR 100,000. The same figure is applicable for Romania and noteworthy as even though it has one of the lowest mortgage debt per capita ratios, it has an adjusted amount of almost EUR 117,000.

MORTGAGE MARKET

HOMEOWNERSHIP AND MORTGAGE INDEBTEDNESS, ONE YEAR ON AFTER THE PANDEMIC

The share of Europeans owning their home increased slightly, by 0.2 pps, to 70% in 2020, still 1% lower than the 71% peak in 2012. The percentage of households with mortgage loans increased by 6% to 29.4% over the same period, while the percentage of owners with no outstanding mortgage loan, was slightly less at 43.5%. The highest level of home ownership was in Romania (94%), followed by other countries in Central and Eastern Europe. The lowest levels are in Switzerland, Denmark, Germany, Austria and Sweden, all below 60%. The mortgage market remains less developed in Central and Eastern Europe, whereas especially in the Nordics and in Continental Europe the number of mortgage-holders is larger. Over the last decade, as shown in Chart 23, the proportion of European home-owners with mortgages has increased by around 1 pps, while the percentage of homeowners without mortgages or loans decreased by around 2 pps.

Although most Member States experienced a decrease in homeownership, in Central and Eastern Europe there were significant reductions in ownership rates. Similarly in Germany where homeownership decreased by -3.8% and in Denmark, by -6.5%. On the opposite end, jurisdictions in which homeownership grew in several European jurisdictions, without a clear geographical pattern, although the sharpest increases were seen in Poland, Portugal and Hungary.

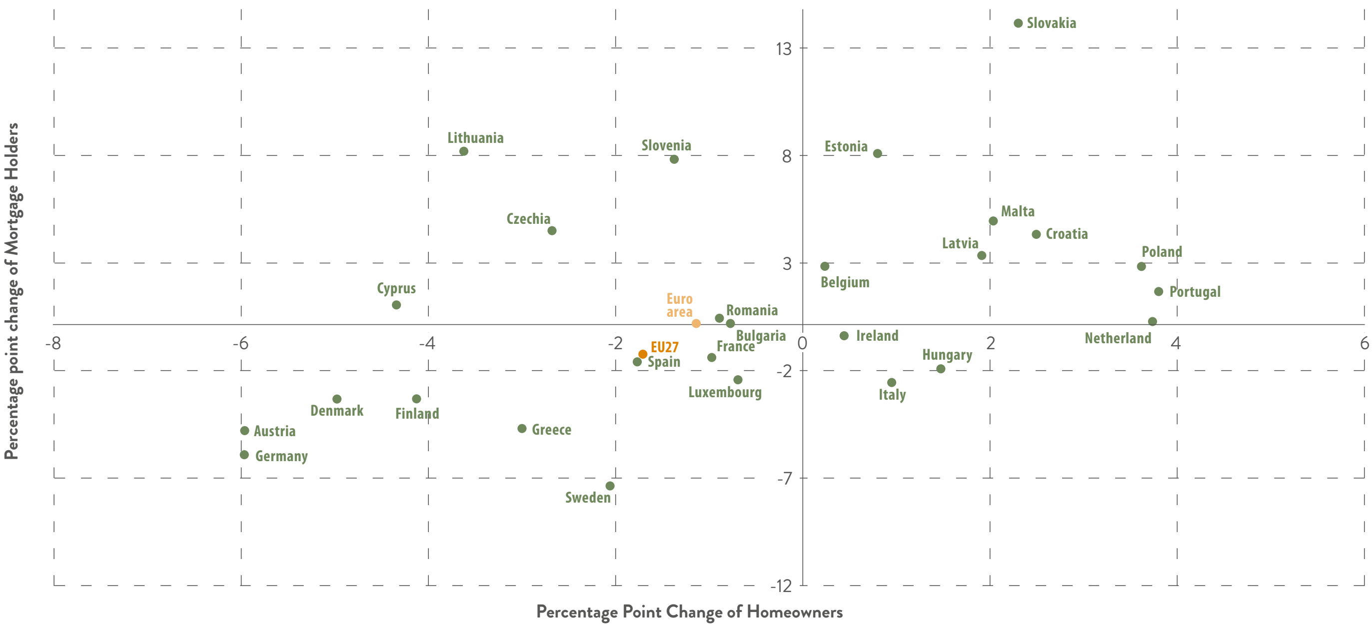
Regarding mortgage borrowers, these increase across several jurisdictions during the 2012-2021 period. The largest decade-long increases took place in Slovakia (+13 pps), although significant increases in Estonia, Latvia, Malta or Croatia, to name a few. Furthermore, mortgage borrowers increase in jurisdictions that saw a decreases in the homeownership rate, particularly Germany, Czechia and Slovenia, as Chart 23 shows.

The average European adult has a mortgage loan of more than EUR 17,782, an increase of 5% from 2020.

Luxembourg has the most mortgage debt per capita at nearly EUR 83,000. In Denmark, Sweden, and the Netherlands the mortgage debt per capita is over than EUR 55,000. In contrast, Bulgaria and Romania, have less than EUR 1,500 per capita outstanding and less than 5% of homeowners have a mortgage.

Adjusting the average mortgage per capita to the proportion of homeowners with mortgages shows that the average mortgage loan for those that have one in Luxembourg, Denmark, Sweden is EUR 100,000. The same figure for Romania is noteworthy as even though it has one of the lowest mortgage debt per capita, has an adjusted amount of almost EUR 93,500.

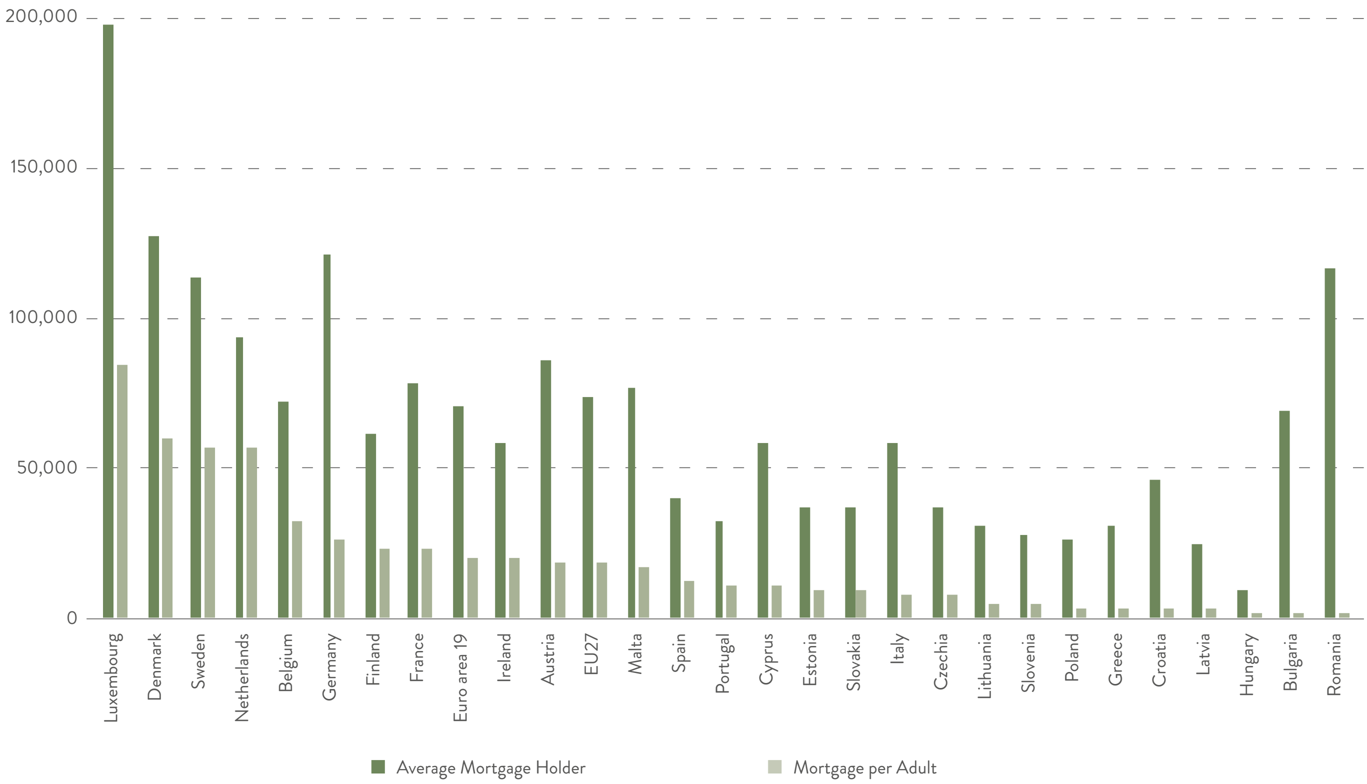
CHART 23 | CHANGE IN HOMEOWNERSHIP AND MORTGAGE BORROWERS 2013-2022, PERCENTAGE POINTS



NOTE: The homeownership data for several countries refers to 2021 their latest data. More information can be found on Table 11 of the Statistical Annex.

Source: Eurostat

CHART 24 | COMPARISON OUTSTANDING MORTGAGE PER ADULT AND PER MORTGAGE HOLDER, IN EUR

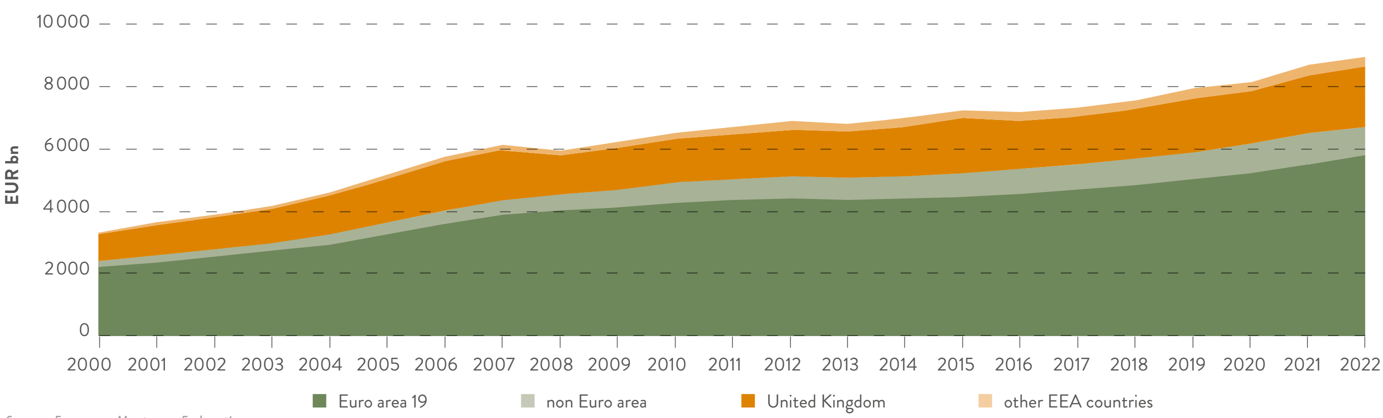


Source: Eurostat, European Mortgage Federation

RESIDENTIAL MORTGAGE LENDING

The total EU mortgage market continued to grow in 2022, passing EUR 6.7 tn. Adding the UK, Norway and Iceland, the figure reached EUR 8.9 tn outstanding, a new all-time high for the region[3]. The EU mortgage stock increased by 2.4% y-o-y. Outstanding mortgages in the euro area increased by 4.5%, which is the first slowdown in growth after a steady increase since 2013. Therefore, mortgage markets continued to grow, but at a slower pace and with the first signs of a cooling down emerging, a trend which continued through the first half of 2023. In the non-Euro area, mortgages outstanding had already decreased by 1.1% (in EUR equivalent terms), from an increase of 5.7% in 2021. The non-euro area relative share of the EU27 total decreased by 0.7 pps to 14.6%. The effect of exchange rates should be commented on briefly. When converting values, Sweden, Poland and Hungary saw a depreciation of 8.5%, 1.8% and 8.6% respectively relative to EUR values. The 5.3% depreciation of the Norwegian krona offset the mortgage market growth there when converted into EUR. In the UK outstanding mortgages in EUR terms decreased by 1.4% due to the 5.6% depreciation of the Pound Sterling to EUR.

CHART 25 | OUTSTANDING RESIDENTIAL MORTGAGE LOANS IN EU27 AND UK, IN EUR BN



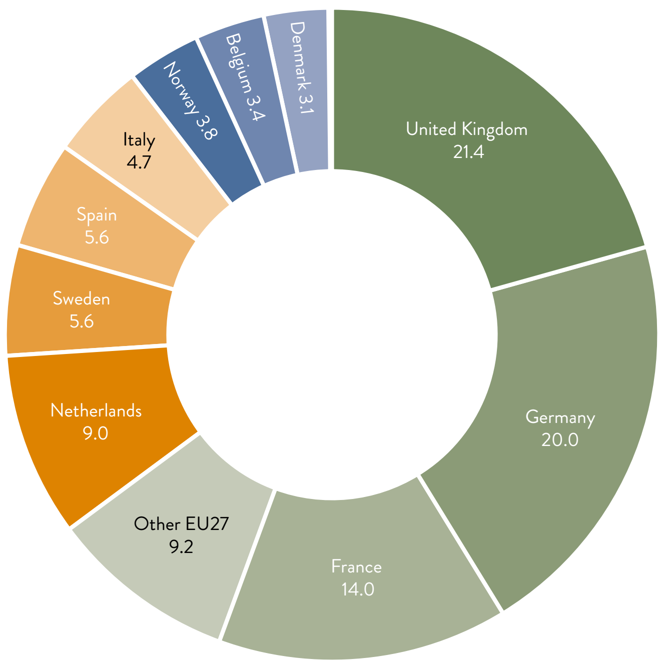
Source: European Mortgage Federation

[3] In the statistics at the end of the publication we also report the figures from Switzerland, which are not included in the analysis here as they represent an aggregate figure of commercial and residential mortgage loans, which would skew the analysis.

There has been little change in the ranking of the largest mortgage markets. Germany, France, the Netherlands, Spain, Sweden and the UK combined represent more than 75% of outstanding mortgages in the 'EU27 plus UK' aggregate. The Dutch mortgage market, for instance, is almost equivalent to the total of the 19 smallest EU mortgage markets. The German and UK markets in 2022 were the largest, at EUR 1.843 tn and EUR 1.836 tn respectively. It is worth noting that it is the first time since 2003 that the share of outstanding mortgages in Germany exceeded the share of outstanding mortgages in the UK, considering values in EUR. Spain remains the largest in Southern Europe, Sweden the largest among Northern European jurisdictions and Poland the largest in Central and Eastern European area.

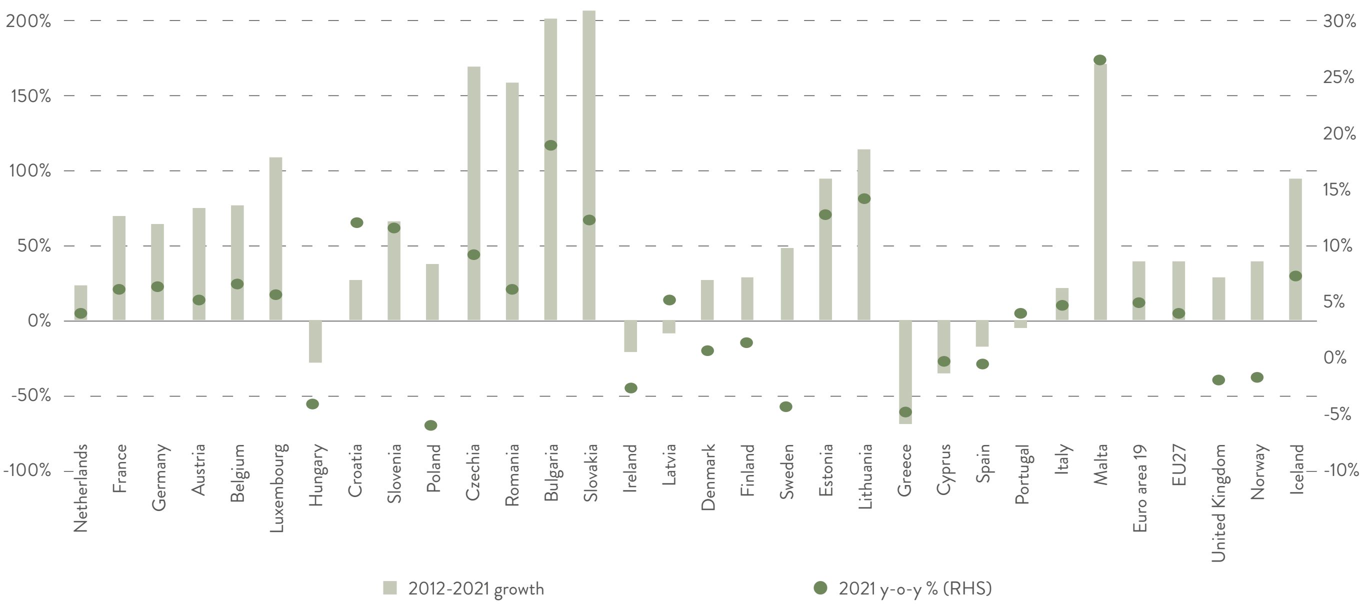
Over the past 10 years, the volume of outstanding mortgages in the EU27 grew by 33%, 4% of which was in 2022. In the UK the growth was smaller than in the EU27, at 24% over the last ten years. The EU27 figure is supported by growth in most EU Member States, but particularly in Continental and Central-Eastern Europe. However, in Southern Europe, except for Malta and Italy, to a lesser extent, no jurisdiction saw a growth in outstanding mortgage loans over the course of the decade. In 2022, mortgage markets grew in Portugal, Italy and Malta while Greece shrank by 4% and Cyprus and Spain remained relatively constant. Furthermore, from 2013 to 2022, in Eastern Europe, all markets grew except for Hungary, where the market contracted 23% over the decade. Slovakia had the highest growth, 172% from 2013, while Bulgaria was the market which increased most in 2022 (by 16%). Steady growth has occurred throughout Continental Europe over the past decade, with mortgage markets nearly doubling in Luxembourg and increasing by over 50% for most of the rest, except for the Netherlands where the increase was 19%. In Northern Europe, the market grew by 71% in Estonia, Sweden and Lithuania over the decade but decreased in some countries such as Latvia (-7%) and especially Ireland (-18%).

CHART 26 | OUTSTANDING MORTGAGE MARKET IN EUROPE 2022, IN PERCENT



Source: European Mortgage Federation

CHART 27 | OUTSTANDING MORTGAGE LOANS EVOLUTION 2012-2021



Source: European Mortgage Federation

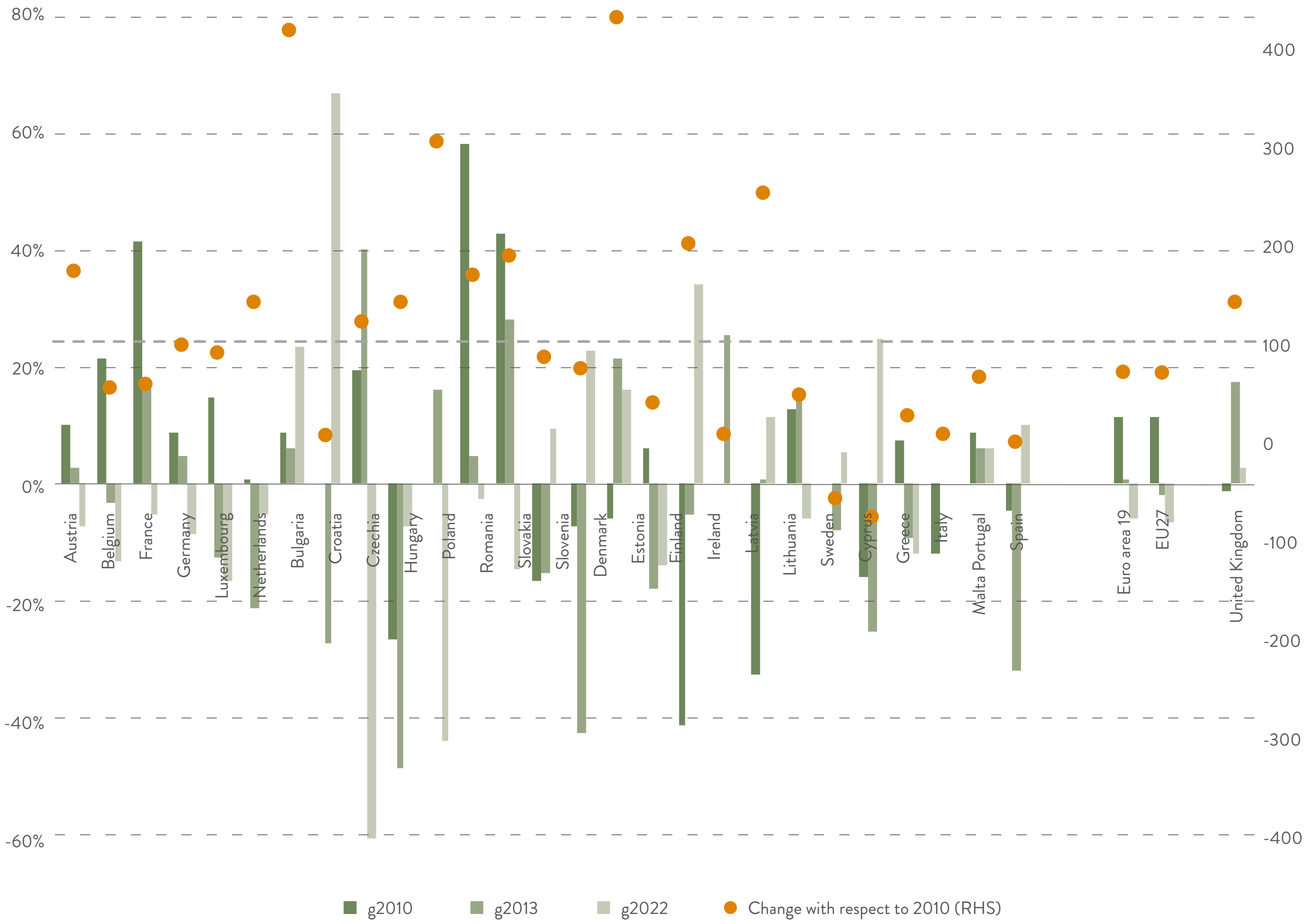
Note: Sorted by geographical location

GROSS MORTGAGE LENDING

Gross lending decreased by almost 6.5% to EUR 65.5 bn in the EU27 in 2022, which is the first decrease since 2018 and the highest decrease since the financial crisis in 2012. Compared to reference years such as 2010 (after the GFC) and 2013 (ten years comparison), which followed periods of deep contraction (2009) or particularly slow growth (2012), gross lending in 2022 expanded quite significantly throughout the year.

As shown in chart 28, the development in volume of gross lending in 2022 was especially diverse across Europe. Decrease in gross lending in 2022 was only homogenous for Continental Europe, while there was no clear pattern across the other European regions. In most countries, gross issuance of mortgages in 2022 was greater than in 2010.

CHART 28 | GROSS LENDING EVOLUTION COMPARISON BETWEEN 2010, 2013 AND 2021



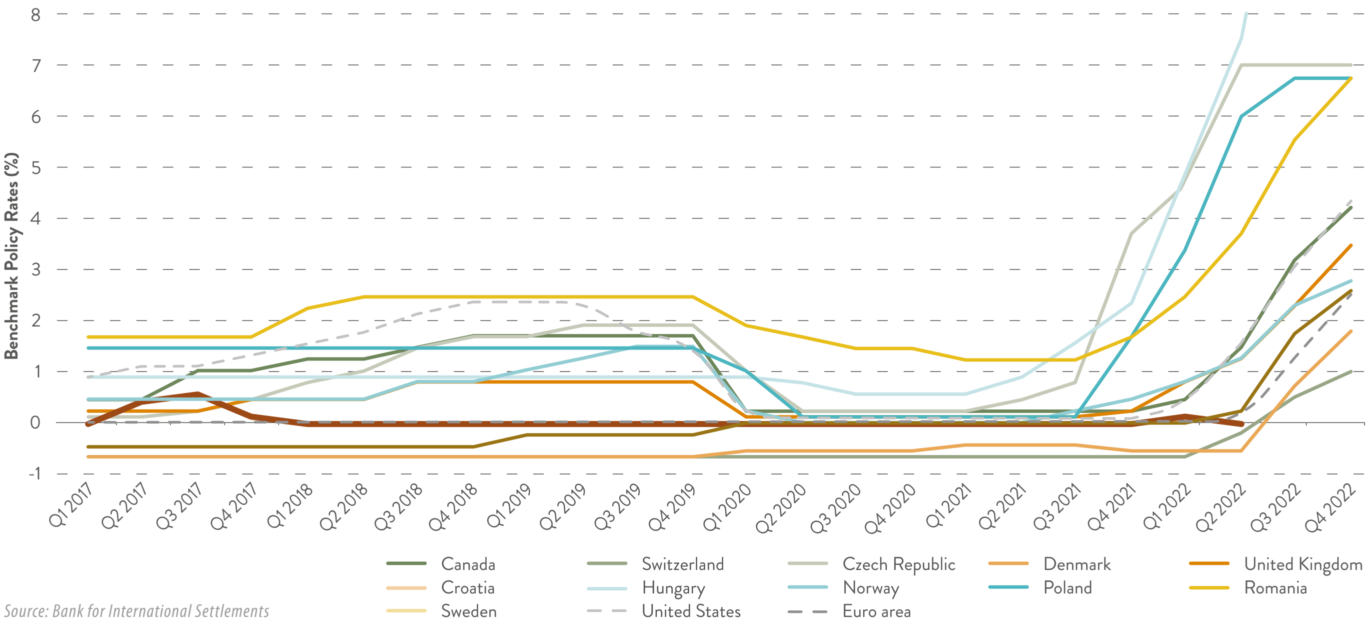
Source: European Mortgage Federation
Note: Sorted by geographical location

MORTGAGE MARKET INTEREST RATES

Average mortgage interest rates began to rise in 2022, although the overall picture is obscured by changing preferences for fixed or floating rate mortgage loans, discussed below.

In 2022, the ECB began to increase its policy rate starting from July 2022 to 2.5% by the year end. Similarly the Swiss National Bank, started to raise its rate from September to 1% in December - still the lowest rate amongst European central banks. The Federal Reserve started to raise its rate already at the beginning of 2022 to 4.375% by year end. The Central Bank of Japan kept its rate stable at -0.1%, while Canada and Sweden also started to raise their rates during the course of the year. Rates rose in 2022 in all European countries, but especially in Hungary and Czechia, where the interest rate in 2022 Q4 were, at 13% (the highest in Europe) and 7%, respectively. In Denmark, the Central bank increased the reference rate starting from September to 1.75% in Q4 2022, the lowest in the EU. The UK's Bank of England raised the rate from 0.25% at the end of 2021 to 3.5% in 2022. As far as 2023 is concerned, the central banks of all major economies, except for Japan, raised their policy rates due to inflationary pressure.

CHART 29 | BENCHMARK POLICY RATES FOR SOME EU CENTRAL BANKS AND THE FEDERAL RESERVE, PERCENT P.A.

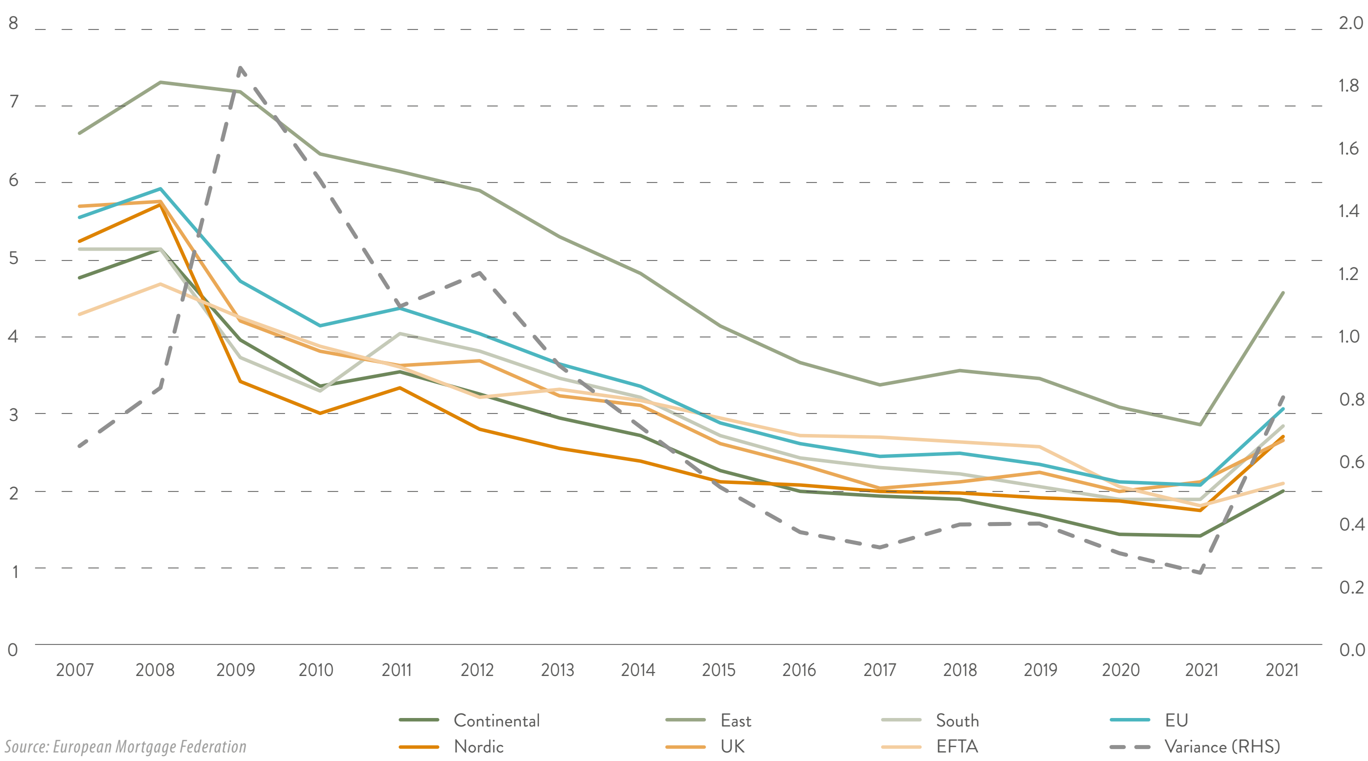


Source: Bank for International Settlements

Average interest rates for mortgages (EEA and UK) reversed the downward trend since 2019 and increased in line with benchmark policy rates. After a consistent decrease to 2.02% in 2021, the average unweighted interest rate increased to 3.11% in 2022. In the UK the weighted interest rate stood at 2.56%, which was an increase of 0.45 pps y-o-y. Despite the overall increase in rates there is still heterogeneity, as can be seen in Chart 30, which shows that rate changes follow a similar pattern but differ in magnitude. Continental European countries have had comparatively lower rate increases (by 0.64 pps to an average of 1.99%), followed by Northern European countries (increase of 0.83 pps to 2.57%) and South European jurisdictions (increase of 0.85 pps to 2.79%). Eastern European countries experienced the largest increase in 2022, reaching an average of 4.51%, which represents an increase of 1.69 pps.

As the variance between the interest rates of the different areas overall narrowed with the decrease in interest rates, it started to increase sharply again within the rising interest rate environment.

CHART 30 | MORTGAGE INTEREST RATES IN AGGREGATED EU REGIONS, IN PERCENT

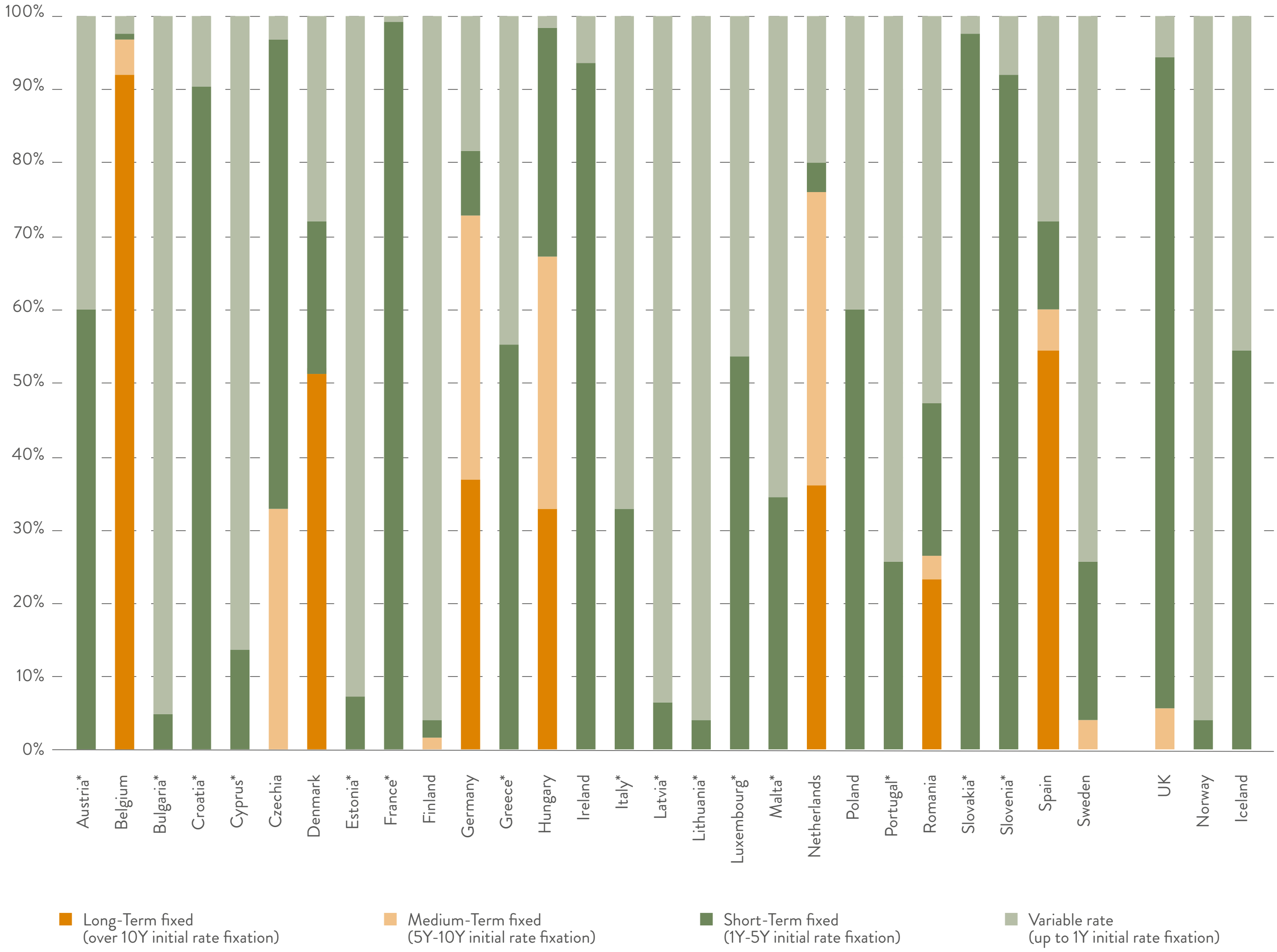


Source: European Mortgage Federation

DIFFERENT TYPES OF INTEREST RATES

The proportion of variable interest rates (with an initial fixed period of up to 1 year) varies considerably by country; in Bulgaria, Finland or Lithuania almost all mortgages are variable rate while in France, Hungary and Slovakia only a small percentage are. The amount of variable interest rate mortgages decreased in relative terms, but increased in absolute terms compared to 2021.

CHART 31 | MORTGAGE MARKET GROSS ISSUANCE BREAKDOWN BY INTEREST RATE TYPE IN 2022

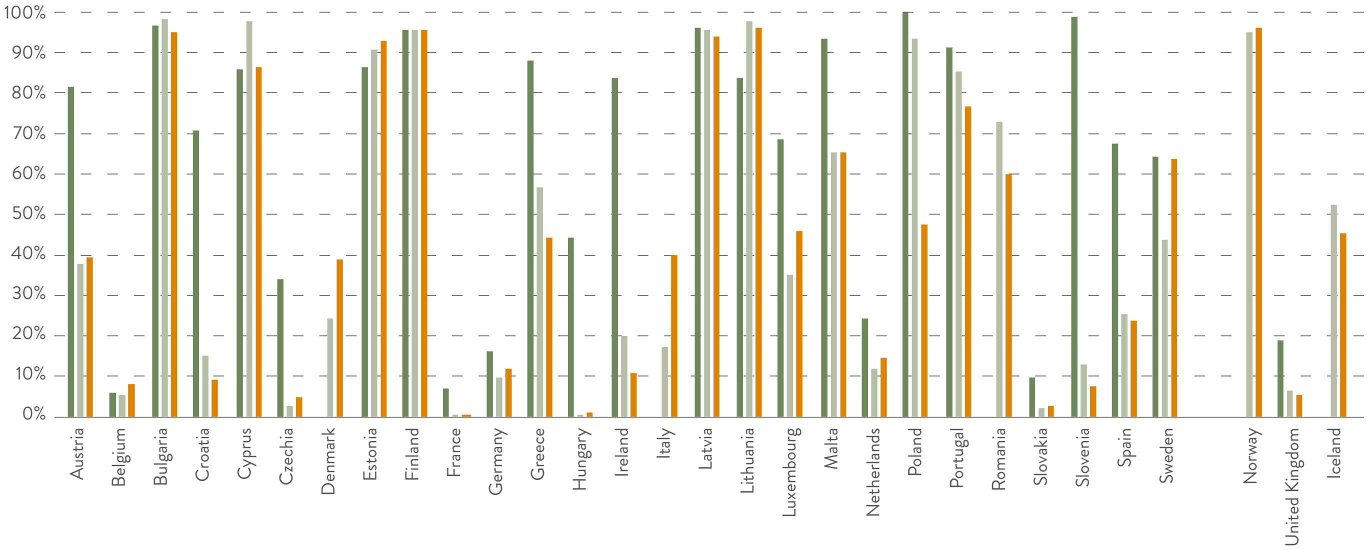


Source: European Mortgage Federation, European Central Bank

The preference for fixed or floating mortgages varies across Europe, in the absence of a common tradition and as a result of differences in national credit frameworks. Fixed rate mortgages are more common in France, Belgium, Croatia and the Netherlands together with Czechia, Denmark and Spain. Lenders in Bulgaria, Finland, Cyprus, Lithuania, Estonia and Norway almost exclusively offer variable interest rates as shown by Chart 31. In the UK most new mortgages are for short term fixed periods.

A significant difference occurred in the UK, where until 2012 almost 36% of new mortgages had a variable rate, while today the share stands at just 6%. In the Nordic area, variable interest rates mortgages have become more popular over the years. Chart 32 shows how the preference for variable interest rates has shifted over time in each country. Variable interest rate mortgages were more popular in 2013 in most countries, but increasingly fixed rate mortgages are preferred. This preference is noticeable in Southern countries such as Spain and Portugal, where variable rate mortgages used to represent 68% and 91% of new lending in 2013, but are now 24% and 77%, respectively. In Central and Eastern Europe, the percentage of variable mortgages rates fell considerably in Hungary, Slovenia and Croatia, while they were relatively stable in Bulgaria. From 2012, in Poland new lending changed from almost all with a variable rate, to only 48% variable. In the EU27 and UK, variable interest rate mortgages represented slightly more than 17% of total origination, breaking a ten-year-long decline that started in 2011, from 37% down to 15% in 2021, although in absolute terms the share had increased to more than EUR 264 bn. A significant shift is discernable in the UK, where until 2012 almost 36% of new mortgages had a variable rate, whereas today the share stands at just 5%. In the Nordic area, variable interest rates mortgages have become more popular over the years.

CHART 32 | SHARE OF VARIABLE MORTGAGE RATES IN NEW LENDING IN SELECTED YEARS



Source: European Mortgage Federation

CHART 33 | EVOLUTION OF GROSS LENDING MORTGAGES WITH VARIABLE INTEREST RATES

Source: European Mortgage Federation, European Central Bank

Austria

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

IN A NUTSHELL

- → The economy grew by 4.9%, compared to 4.6% in the previous year, while inflation increased to 8.6% (2.8% in 2021).
- → Current data for residential real estate sold in the first quarter of 2023 show a price increase of 1.1% y-o-y for Austria as a whole.
- → The number of permits issued has fallen to 62,000.
- → Subsidised housing continues to be a main pillar of multi-apartment new construction.

MACROECONOMIC OVERVIEW

Since the second half of 2022, according to the recently published forecast of the OeNB, the economy has been in stagflation due to the war in the Ukraine, a less dynamic international environment and the strong increase in inflation caused by energy prices. In the second half of 2023 the economy is expected to return to growth and inflation to slowly decline. There is currently no perceived risk of a recession in 2023.

HOUSING MARKETS

After eight quarters of rising residential property prices by more than 10% in Austria, the data collected by the OeNB, DSS GmbH and TU Vienna for the first quarter of 2023 show a year-on-year increase of 1.1%. In Vienna, prices also stagnated with a rise of 0.8%. In terms of short-term dynamics (measured by increases compared to the previous quarter), residential property prices in Austria declined at the end of 2022 for the first time in several years by 2.0%. In the first quarter of 2023, prices stagnated at the previous quarter's level (-0.4%). In Vienna, prices developed very similarly. Year-on-year for Austria as total an increase of 10.4% was registered in 2022, and for Vienna an increase of 9.7% in 2022. A stagnating phase started at the end of 2022.

MORTGAGE MARKET

Mortgage loans outstanding have been growing faster than total household loans (including consumer loans). New loan origination slowed sharply from August due to rising interest rates, property prices and inflation restricting real estate affordability.

The share of variable interest loans, which was over 80% in 2014, fell to 32% in the first quarter and – in the wake of rising interest rates – went up to 47% in Q4. The proportion of loans with an interest lock-in period of more than 10 years, which was as low as 2% in 2014, increased to 53% in Q2 then decreased to 37% at year end. The share of foreign currency loans decreased further to 5.5% of all outstanding loans in April 2023, 0.8 pps lower than one year earlier.

According to the Euro area bank lending survey, demand for home loans declined further in the first quarter of 2023, though not as strongly as in the third and fourth quarter of 2022. According to the survey, rising interest rates and the uncertain economic outlook are the main reasons for the drop in loan demand. Credit standards for housing loans remained broadly unchanged in the fourth quarter of 2022 and the first quarter of 2023, following a considerable tightening in the third quarter of 2022, which banks had attributed to the risk situation and new regulatory conditions.

HOUSING POLICY

Financing of affordable housing mainly relies on the housing subsidy schemes of Austrian Länder ("Wohnbauförderung"), which spent approx. EUR 1.9 bn in new construction, refurbishment and housing allowances in 2021. In addition, the Federal State has increased its activities for decarbonization of the housing stock substantially, with a budget of EUR 650 mn for the years 2021/22. Other tools, such as tax subsidies (deduction of renovation costs from income tax) or subsidies on financing products (contract saving), play a subsidiary role. The financing system of the "Wohnbauförderung" gains its efficiency through the close interaction with the system of Limited-Profit Housing Associations (LPHA) and tailor-made capital market financing instruments. LPHAs are responsible for around 24% of the total housing stock in Austria and operate at a cost-based basis. A strict system of audit and control contributes to very good performance indicators in this sector. Legally defined components of profit, combined with tie-up of assets and the obligation to reinvest in housing, provide for a long-term advantageous financial endowment of most LPHA. A mostly exceptional credit history makes them sought-after borrowers for capital market loans.

The existing focus on housing decarbonization both with financing tools of the Länder and the Federal State has been accelerating because of the war in Ukraine. Oil heating in new construction has been prohibited for a couple of years. The ban on gas heating is still pending, as the necessary law (Renewable Heat Act) has not yet been passed despite a long debate. Over stages 40% of apartments currently with fossil heating shall switch to renewable alternatives by 2040.

After a long boom, the construction sector, and housing construction in particular, has entered a crisis. This crisis has many reasons: enormous increases in construction prices due to Covid and the Ukraine war, inflation and its impact on household incomes, the sharp rise in financing costs, restrictions on loan-to-value rules for mortgage loans which have reduced access to home ownership, and public sector budgetary restrictions.

As in the Global Economic Crisis of 2008/09, subsidized and limited-profit housing is expected to act as a shock absorber during the current crisis.

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

	AUSTRIA 2021	AUSTRIA 2022	EU 27 2022
MACROECONOMIC VARIABLES			
Real GDP growth (%) (1)	4.6	4.9	3.5
Unemployment Rate (LSF), annual average (%) (1)	6.2	4.8	6.2
HICP inflation (%) (1)	2.8	8.6	9.2
HOUSING MARKET			
Owner occupation rate (%) (1)	54.2	51.4	69.1
Gross Fixed Investment in Housing (annual change)(1)	1.7	-3.3	1.5
Building Permits (2015=100) (2)	115.1	89.8	125.8
House Price Index – country (2015=100) (2)	148.0	163.2	164.6*
House Price Index – capital (2015=100) (2)	137.5	150.9	163.8*
Nominal house price growth (%) (2)	11.8	10.3	10.6*
MORTGAGE MARKET			
Outstanding Residential Loans (mn EUR) (2)	135,896	142,173	6,743,197
Outstanding Residential Loans per capita over 18 (EUR) (2)	18,392	19,142	18,433
Outstanding Residential Loans to disposable income ratio (%) (2)	57.5	54.7	71.5
Gross residential lending, annual growth (%) (2)	-2.3	-7.1	-6.5
Typical mortgage rate, annual average (%) (2)	1.2	1.9	3.1

* Please note that this value is the simple average of the available values in 2022.

Sources:
(1) Eurostat
(2) European Mortgage Federation – Hypostat 2023, Statistical Tables.

AUSTRIA FACT TABLE

Which entities can issue mortgage loans in your country?	Mortgage lending is mainly financed via banks and Bausparkassen.
What is the market share of new mortgage issuances between these entities?	Not available
Which entities hold what proportion of outstanding mortgage loans in your country?	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.
What is the typical LTV ratio on residential mortgage loans in your country?	According to the OeNB Financial Stability Report 44 (November 2022), most LTV ratios amounted to around 50% since very rarely are loans granted with LTV ratios higher than 75% and the industry standard requires certain guarantees or an insurance against defaults in the higher LTV brackets.
How is the distinction made between loans for residential and non-residential purposes in your country?	Not available
What is/are the most common mortgage product(s) in your country?	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).
What is the typical/ average maturity for a mortgage in your country?	Mortgages typically have a maturity rate of 25-30 years.
What is/are the most common ways to fund mortgage lending in your country?	According to the EMF-ECBC, in 2022 outstanding mortgage backed-up covered bonds amounted to EUR 70 mn, while outstanding mortgages amounted to EUR 142 mn. Beside covered bonds, deposits are the main way of funding. Meanwhile securitisation as a way of funding is even less popular.
What is the level of costs associated with house purchase in your country (taxes and other transaction costs)?	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.
What is the level (if any) of government subsidies for house purchases in your country?	Not available

Belgium

By Frans Meel and Daniel Kryszkiewiez, Union Professionelle du Crédit (Febelfin)

IN A NUTSHELL

- → Average inflation rate: 9.6% (End 22: 10.3%)
- → Slowdown in credit demand from Q4 2022
- → More than 250,000 new mortgages originated (excluding refinancing) for EUR 42.8 bn

MACROECONOMIC OVERVIEW

With the political conflict in the Ukraine and the rapid growth of energy prices, inflation in Belgium reached 10.3%, the highest since 1970. GDP growth was 3.1% half that of 2021.

The unemployment rate continued to fall until the end of 2022, when an increase in short-term unemployment took place. The use of temporary employment also decreased throughout the year.

The high inflation has been mitigated by a principle that is unique in Europe, through an automatic indexation of salaries if the rate of inflation exceeds the pivot index (fixed at 2%). This has a significant impact on companies' wage costs.

High inflation, rising consumer prices and rising interest rates in Q4 2022, have reduced the number of credit applications with interest rates rapidly doubling, impacting consumer borrowing capacity.

The energy crisis has raised awareness and motivated consumers to invest in their homes to make them more energy efficient and reduce their energy bills. Property investments increased by 2.1%.

HOUSING MARKET

House prices declined by 2%, according to the Federation of Notaries. Real estate activity was 7.1% lower in the second half of the year than in the first half.

The real estate market in the Flemish region is more constrained than in the other two regions for properties with a bad EPB certificate, worse than EPB D Label (with a consumption of less than 400 KwH/M^2/year). New buyers of these properties must get at least an EPB D label within 5 years. This constraint does not yet apply to the Walloon and Brussels region.

The rise in interest rates in the last quarter of 2022 has also had an impact on the property market, with the ability to repay and borrow reduced.

According to the Federation of Notaries, the average price of a house rose by 8.2% (to EUR 348,064) in Flanders, by 6.9% in Brussels (EUR 576,576) and by 5.7% in Wallonia (EUR 235,615). Adjusting for inflation, there was a decrease in all 3 regions: -4.3% in Wallonia, -3.1% in Brussels and -1.8% in Flanders.

The average price of a flat was EUR 260,300 (+3.6% compared to 2021), adjusted for inflation, this represents a price decrease of 6.4%, or EUR 16,000.

The importance of EPB labels has been confirmed in 2022 and has an impact on real estate transactions. Properties with a label worse than D, with a consumption if more than 400 KwH/M^2/year, are less attractive in contrast to 2021.

MORTGAGE MARKET

According to the figures of the Belgian federation of the financial sector (Febelfin), almost 255,000 new loans were made (excluding external refinancing) for an amount of EUR 42.8 bn. This was a decrease, in number, of 5.1% but an increase, in amount, of 3.1% compared to 2021.

The number of credits for "purchase" and "purchase + transformation" increased by 3.6% and 6.9% respectively. The "construction" purpose decreased by 7.5%. This decline can be explained by the rise in prices for construction materials.

There were 353,127 mortgage loan applications for an amount of EUR 63.5 bn (excluding refinancings), a decrease of 13.9% in number and 10.8% in value compared to 2021. This decrease was accentuated during the last quarter with a drop of almost 25% due to rising interest rates and inflation.

The average amount of a construction loan stabilised at around EUR 214,000 in the fourth quarter, an increase of around EUR 45,000 (+26.8%) since the beginning of 2019 and the pre-pandemic level.

The average amount of a home purchase loan fell slightly in the fourth quarter of 2022, to around EUR 194,000. Again, this represents an increase of EUR 34,000 (+21.5 %) compared with the start of 2019, so in less than four years.

The average size of a renovation loans rose most, from EUR 54,500 at the start of 2019 to almost EUR 70,500 (+29%) at the end of 2022. An increase of some EUR 16,000 in less than 4 years.

In the fourth quarter of 2022, the cost of buying a home, including renovation, fell relatively significantly to around EUR 191,000.

External refinancing in 2022 fell considerably by 43.2% in number and 41.9% in amount, another effect of the rise in interest rates.

In 2022, nearly 86% of borrowers opted for a fixed interest rate and nearly 6% for a variable interest rate with an initial 10-year fixed rate.

With the energy crisis in 2022, the importance of the energy performance of the assets as guarantees for the credit portfolios of banks is more than ever in the focus of attention and is an important element in the decision to grant mortgage loans.

	BELGIUM 2021	BELGIUM 2022	EU 27 2022
MACROECONOMIC VARIABLES			
Real GDP growth (%) (1)	6.3	3.2	3.5
Unemployment Rate (LSF), annual average (%) (1)	6.3	5.6	6.2
HICP inflation (%) (1)	3.2	10.3	9.2
HOUSING MARKET			
Owner occupation rate (%) (1)	71.3	72.5	69.1
Gross Fixed Investment in Housing (annual change)(1)	8.5	0.6	1.5
Building Permits (2015=100) (2)	124.8	111.7	125.8
House Price Index – country (2015=100) (2)	131.5	142.7	164.6*
House Price Index – capital (2015=100) (2)	126.4	n/a	163.8*
Nominal house price growth (%) (2)	8.6	8.5	10.6*
MORTGAGE MARKET			
Outstanding Residential Loans (mn EUR) (2)	291,948	308,579	6,743,197
Outstanding Residential Loans per capita over 18 (EUR) (2)	31,618	33,218	18,433
Outstanding Residential Loans to disposable income ratio (%) (2)	100.3	97.4	71.5
Gross residential lending, annual growth (%) (2)	26.1	-13.1	-6.5
Typical mortgage rate, annual average (%) (2)	1.5	2.1	3.1

* Please note that this value is the simple average of the available values in 2022.

Sources:
(1) Eurostat
(2) European Mortgage Federation – Hypostat 2023, Statistical Tables.

BELGIUM FACT TABLE

Which entities can issue mortgage loans in your country?	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.
What is the market share of new mortgage issuances between these entities?	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 95.7% • Insurance companies: 0.9% • Other types of lenders: 3.4% N.B.: These figures do not take into account the social credit lenders. However, their market share is rather low.
Which entities hold what proportion of outstanding mortgage loans in your country?	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 95.9% • Insurance companies: 1.3% • Other types of lenders: 2.8%
What is the typical LTV ratio on residential mortgage loans in your country?	According to the Financial Stability Review issued by the National Bank of Belgium (NBB), 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 first half of 2020 vintage, about 53% of the volume of new mortgage loans was made up of loans with an LTV ratio above 80%. As a consequence of recommendations imposed by the NBB, the share of new mortgage loans with an LTV ratio above 80% has decreased to about 40% in 2021. In the first half of 2022, the share of new mortgage loans with an LTV higher than 80% again increased. Average LTV-0 was at 73%, compared to 71% in 2021.
How is the distinction made between loans for residential and non-residential purposes in your country?	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.
What is/are the most common mortgage product(s) in your country?	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.

What is the typical/ average maturity for a mortgage in your country?	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. 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 2019. Since then, the market share of new mortgage loans with a maturity of over 20 years remained almost stable at about 40%. In the first half of 2022, market share of new mortgage loans with a maturity of 20 to 25 years increased to about 47%. The part of loans with a maturity of >25 years, however, remained stable.
What is/are the most common ways to fund mortgage lending in your country?	Most funding still comes from deposits. A few major lenders issue covered bonds.
What is the level of costs associated with house purchase in your country (taxes and other transaction costs)?	The registration duty in **Flanders** changed at the start of 2022. It increased to 12% (coming from 10%) of the purchase price of a dwelling that is not the own and only home as the main residence. For the own and only home as the main residence, this duty is lowered to 3% (coming from 6%) of the purchase price. It only amounts to 1% in case of a deep energetic renovation in the first 5 years after the purchase. Application of an additional reduction of EUR 2,800 in case the purchase price does not exceed EUR 220,000 (EUR 240,000 in the main cities and some cities around Brussels). Moreover, the principle of "portability of registration duties" exists in Flanders : upon the purchase of a new housing property intended to replace the previous principal residence, registration duties up to EUR 13,000 may be "transferred", meaning these duties will not have to be paid a second time. This "portability of registration duties", that applied in Flanders until 2022, is reformed: until 01.01.2024, consumers can choose to apply the new lowered registration duty or still to pay the former (higher) level of registration duty in combination with the portability of registration duties. From 01.01.2024 on, the portability of registration duties will no longer exist. 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. In 2023, the registration tax amounts to only 6% on the first slice of EUR ± 178,000 in case of small properties in some cities and on the first slice of EUR ± 167,000 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 200,000**. This exemption is only applicable to properties of under **EUR 600.000** and provided that it concerns the buyer's own and only home as his main residence. An additional "abattement" of EUR 25.000 per energy label category is possible if the energy class of the purchased home improves by at least 2 energy label categories in the first 5 years after the purchase. There is also a registration duty on the amount of the mortgage loan covered by a mortgage registration.
What is the level (if any) of government subsidies for house purchases in your country?	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 200,000**) 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 Petar Ivanov, Tsvetkova Bebov & Partners, member of Eversheds Sutherland

IN A NUTSHELL

- → The economy was put under stress by the effects of the political crisis in Ukraine, which resulted in a moderate GDP growth and a 13.7% increase of inflation y-o-y.
- → Despite rising house prices and the cost of living, historically low interest rates and increasing income continued to fuel the growth of the mortgage market.
- → In the first months of 2023, a slow increase in interest rates on new mortgage loans and a decreased demand stabilized house prices, after over a decade of sustained growth.
- → Two new acts of legislation aim at improving conditions for the issuance of securitisations and covered bonds.
- → The National Recovery and Resilience Plan will create new opportunities for homeowners to improve the energy efficiency of their buildings.

MACROECONOMIC OVERVIEW

The economy was put under stress by the economic effects from the political conflict in Ukraine and the sanctions imposed on and by Russia, which disrupted supplies of energy and certain raw materials and contributed to a sharp rise of inflation. The country's projected real GDP increase is 3.4% (to EUR 84,6 bn) compared to a 7.6% growth in 2021. This projection is comparable to the EU average GDP growth rate of 3.5% (3.5% in the Eurozone).

There was a sharp increase of inflation with the HICP up to 13% y-o-y (2.8% in 2021), mainly driven by energy, food and services prices. The unemployment rate remained historically low at 4.3%, significantly lower that the EU average of 6.2% (6.8% in the Eurozone). The increase in inflation and shortage of qualified labor contributed to further growth of average wages, which increased 13.7% (26.6% compared to 2020).

LOOKING AHEAD

It is expected that the factors dampening the overall economic performance will persist and will slowly move towards recovery in 2024.

According to its spring economic forecast, the European Commission expects real GDP growth in 2023 of 1.8% (1.0% in the EU and 1.1% in the Eurozone) and projects a moderate decrease of inflation to 9.4% (6.7% in the EU and 5.8% in the Eurozone). As of April 2023, inflation remains high at 13.9%, y-o-y. It is expected that wage growth will slow and remain lower than average inflation, while the unemployment rate will remain low.

After yet another record-breaking year for the Bulgarian housing market (in terms of prices and volume), the first signs of slowing down will occur in 2023 with a slow decrease in demand, more moderate growth in prices and a slight increase in interest rates to 2.62% for BGN denominated loans (3.69% for EUR denominated loans) in April 2023, which is expected to rise to around 4% by year end. The comparably low interest rates and high inflation will likely continue to support the local housing market and will help to moderate the expected decrease in activity.

HOUSING MARKETS

The growth of the housing market over the past 10 years has peaked. There was an increase in the number of issued building permits – 8,169 (7,047 in 2021 and 5,860 in 2020), the largest number of new building permits issued in Bulgaria since 2008 (10,157). Housing starts increased to 5,468 compared to 5,084 in the previous year, and housing completions also increased to 5,390 compared to 3,898 in 2021. These developments contributed to a 23.5% increase in the volume of new gross residential lending from BGN 5.4 bn (ca. EUR 2.8 bn) in 2021 to BGN 6.7 bn (ca. EUR 3.4 bn).

The steep rise of inflation and sustained demand further accelerated the increase of house price levels, which averaged at 170% of the index's base value in 2015 compared to 149.2% in 2021, they peaked at 175.1% in Q4.

The housing market shows large regional differences. The HPI for the two largest cities – Sofia and Plovdiv - outperform the nation's average and reached an average of 194.2% (152.2% in 2021) and 177% (160% in 2021), respectively. At the opposite end is the fourth largest city – Burgas and the South-east region of Bulgaria with HPIs of 148.8% and 143.1%, respectively. There were higher average wages and more diverse job opportunities in the largest cities – for instance, the average wage in Sofia was 37% higher than the nation-wide average, contributing to asymmetric price increases.

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

MORTGAGE MARKET

MARKET DYNAMICS

There has been sustained growth of mortgage lending volumes and lowering of interest rates for over a decade, starting in 2010 with a slow recovery following its major crash from 2008/2009 as a result of the global economic crisis of 2008. 2022 marked the peak as the mortgage market grew by 16% compared with 2021 to a total outstanding of BGN 18.4 bn (ca. EUR 9.4 bn). The amount of new lending has grown at a higher pace – 23.5% compared with 2021. Interest rates on mortgage loans followed the trend from preceding years and decreased further to an annual average of 2.54% for BGN denominated loans (2.71% in 2021) and 3.11% for loans in EUR (3.27% in 2021), both reaching an all-time low. This contrasts to the sharp increase in interest rates observed in most EU countries, following the monetary decisions of major central banks, such as the European Central Bank and the Bank of England, and due to the excess liquidity in the Bulgarian banking sector, kept banks' funding costs low. In Q4 2022 interest rates started to slowly increase (2.63% in December 2022) signalling a likely cooling off of the local market. This trend has continued in the first months of 2023.

The most popular new loan products have floating interest rates (95%), and a large majority are BGN denominated (93% of all outstanding loans and 97% of new loans) due to the more favourable interest rate terms on BGN loans, which comes despite the country's declared goal of joining the Eurozone no later than 2025. The maximum maturity for new mortgages is 35 years with an average of 20 – 25 years. Due to the rise in inflation and housing prices the average borrowed amount on new loans has increased to around BGN 150,000 (ca. EUR 76,600) with an LTV of 80%.

The housing NPL levels continued to decrease in 2022 to 2.33% (BGN 428 m) of all outstanding mortgage loans (3.6%, BGN 573 mn in 2021).

On the supply side, credit standards for house purchases in 2022 remained largely unchanged and relatively relaxed. This comes despite an explicit warning by the Bulgarian National Bank against the application of loose credit standards and a 1% increase of the countercyclical capital buffer for exposures in Bulgaria made by the Bulgarian National Bank in the course of 2022.

NON-MARKET LED INITIATIVES AND FURTHER IMPORTANT EVOLUTION

In 2022, the main non-market led drivers of demand on the Bulgarian market were the fear from the rising inflation and borrower's desire to convert savings into a housing investment, which is perceived as a "safe haven" in an environment marked by a series of regional and domestic crises, marked by political instability both at regional and domestic levels with the ongoing conflict in Ukraine as well as the absence of a stable government in the last two years following political impasse.

MORTGAGE FUNDING

Bank funding is dominated by deposits. As at the end of 2021, the banking sector had BGN 134 bn (ca. EUR 68.6 bn) in deposits (2021 – BGN 115 bn), equal to 81% of GDP and 86% of banking assets. Household deposits account for BGN 74 bn (EUR 38 bn) or 55% of the total, followed by deposits of non-financial entities – BGN 43bn (EUR 22 bn) or 32%, and deposits of financial entities – BGN 12.6 bn (EUR 6.4 bn) or 9.4%.

This dominance of deposit funding is mainly due to the well-established preference of households and non-financial entities to keep their free funds in bank deposits but is also likely a consequence of the underdevelopment of the Bulgarian capital market. The growth in deposits is also a result of the strengthening of consumer confidence in the banking system in recent years.

On the other hand, typical wholesale funding tools such as securitisations and covered bonds are practically non-existent in Bulgaria. The same applies to central bank funding, which may be provided only in strictly limited cases due to the pegging of the Bulgarian Lev to the Euro. Whereas the lack of appropriate legal infrastructure has so far hindered the successful issuance of securitisations, mortgage bonds – a type of covered bonds – did not manage to establish themselves as successful and marketable products despite the issuance of several mortgage bond 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.

In March 2022, the Bulgarian parliament adopted the new Covered Bonds Act, which replaced the existing mortgage-backed bonds legislation and transposes the EU's Covered Bonds Directive (EU) 2019/2162. The Covered Bonds Act is the result of an EBRD funded project aimed at creating a modern covered bonds market in Bulgaria and encouraging cross-border investment into and from Bulgaria. In addition, in March 2021 a new law on special purpose and securitisation companies has entered into force, which established a legal framework for securitisations in Bulgaria.

It is yet to be seen what the impact of these modernsation efforts on the wholesale funding of Bulgarian banks will be.

GREEN FUNDING

The National Recovery and Resilience Plan, part of Next Generation EU, envisages the establishment of a National Program for Energy Renovation of Residential and Non-Residential Buildings (the Program) under the auspices of the Ministry of Regional Development and Public Works. The total funds dedicated to the Program are BGN 2.47 bn (EUR 1.26 bn) for the renovation of multifamily residential buildings, public and commercial buildings in the period 2022-2026.

The main goal of the Program is to achieve a 30% increase in energy efficiency in participating buildings through the funding of projects, such as the thermal insulation of buildings, the renovation of common heating, cooling and ventilation systems, and the construction of renewable energy installations. The application period for the first stage of the Program started in December 2022. The National Recovery and Resilience Plan also envisages the co-funding of individual investments to increase the energy efficiency of single family and multifamily buildings, such as the construction of solar energy installations, in a total amount of BGN 240 m (EUR 12 3m) in the period 2022-2025.

	BULGARIA 2021	BULGARIA 2022	EU 27 2022
MACROECONOMIC VARIABLES			
Real GDP growth (%) (1)	7.6	3.4	3.5
Unemployment Rate (LSF), annual average (%) (1)	5.3	4.3	6.2
HICP inflation (%) (1)	2.8	13.0	9.2
HOUSING MARKET			
Owner occupation rate (%) (1)	84.9	85.0	69.1
Gross Fixed Investment in Housing (annual change)(1)	-11.0	-9.2	1.5
Building Permits (2015=100) (2)	41.0	47.3	125.8
House Price Index - country (2015=100) (2)	135.6	156.2	164.6*
House Price Index - capital (2015=100) (2)	140.3	163.5	163.8*
Nominal house price growth (%) (2)	4.5	15.2	10.6*
MORTGAGE MARKET			
Outstanding Residential Loans (mn EUR) (2)	8,086	9,390	6,743,197
Outstanding Residential Loans per capita over 18 (EUR) (2)	1,412	1,662	18,433
Outstanding Residential Loans to disposable income ratio (%) (2)	n/a	n/a	71.5
Gross residential lending, annual growth (%) (2)	37.4	23.5	-6.5
Typical mortgage rate, annual average (%) (2)	3.3	3.1	3.1

* Please note that this value is the simple average of the available values in 2022.

Sources:
(1) Eurostat
(2) European Mortgage Federation – Hypostat 2023, Statistical Tables.

BULGARIA FACT TABLE

Which entities can issue mortgage loans in your country?	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 KBC Bank Bulgaria (ex Raiffeisenbank Bulgaria) (KBC BG)*, Central Cooperative Bank (CCB) and Allianz Bank Bulgaria (Allianz). *In March 2023 KBC BG has merged into UBB following an acquisition of KBC BG by UBB in the course of 2022..
What is the market share of new mortgage issuances between these entities?	From 31.12.2021 to 31.12.2022 the total nominal (principal) value of residential mortgage loans issued by Bulgarian banks has increased by ca. BGN* 2.6 bn from BGN 15.82 bn to BGN 18.37 bn. The 8 most active banks on the Bulgarian residential mortgage loan market account for around 95.4% of this increase – UBB and KBC BG (21.3%), UCB (21.2%), Eurobank (20.2%), DSK (18.4%), FIB (5.4%), CCB (4.7%), Allianz (4.2%). * EUR 1 = BGN 1.95583
Which entities hold what proportion of outstanding mortgage loans in your country?	As of 31.12.2021 the total nominal (principal) value of residential mortgage loans issued by Bulgarian banks is BGN* 18,37bn. The 8 banks mentioned above form BGN 17.57 bn (ca. 96%) of this amount, of which DSK holds BGN 4.25 bn (ca. 23.2%); UBB and KBC BG – BGN 4.13 bn (ca. 22.5%); UCB – BGN 3.30 bn (ca. 18%), Eurobank – BGN 3.06 bn (ca. 16.6%), FIB – BGN 1.14 bn (ca. 6.2%), CCB – BGN 959 mn (ca. 5.2%), Allianz – BGN 725 mn (ca. 4%). * EUR 1 = BGN 1.95583
What is the typical LTV ratio on residential mortgage loans in your country?	The average LTV ratio is 80%.
How is the distinction made between loans for residential and non-residential purposes in your country?	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.
What is/are the most common mortgage product(s) in your country?	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 being cited as BGN 150,000. Interest rates have been decreasing over the last years. In 2022 the average interest rates on BGN denominated housing loans is 2.54%.
What is the typical/average maturity for a mortgage in your country?	The average maturity of mortgage loans in Bulgaria is around 20 – 25 years with maximum term of any mortgage being 35 years.

What is/are the most common ways to fund mortgage lending in your country?	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. In March 2022 a new Covered Bonds Act transposing the Covered Bonds Directive (EU) 2162/2019 was adopted by the Bulgarian Parliament. There is yet no market for covered bonds in Bulgaria.
What is the level of costs associated with house purchase in your country (taxes and other transaction costs)?	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.
What is the level (if any) of government subsidies for house purchases in your country?	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 Eric Huellen, European Mortgage Federation – European Covered Bond Council

IN A NUTSHELL

- → Real GDP expanded by 6.2%, while inflation rose to 10.7%.
- → House prices increased significantly, especially in urban areas.
- → Outstanding mortgage loans rose by 9.5% pushed by the entrance of foreign banks into the domestic market.
- → Croatia joined the Euro area on 1 January 2023.

MACROECONOMIC OVERVIEW

GDP expanded by 6.2% largely thanks to a strong first half of the year despite headwinds related to record high inflation of 10.7%, supply side bottlenecks and tighter financing conditions for firms and households. The energy price shock and its pass-through to other goods and services affected the purchasing power of households as the year advanced, with inflation outpacing wage growth. Still, private consumption remained the main growth contributor supported by a steep decline in the household's savings rate. The external sector had a mildly negative impact on growth, as booming exports of goods and services were offset by strong import growth.

The labour market performed well , with employment expanding by 2.3% and surpassing pre-pandemic levels. Construction and trade, transport, accommodation and food services made the biggest gains, supported by the increase in the inflow of foreign workers. The unemployment rate edged down to 7%, the lowest in the last 13 years. Strong wage growth in the face of decelerating inflation is set to lead to mild real income gains already in 2023, with the unemployment rate dropping to 6.6%.

In 2022, fiscal revenues grew markedly on account of both real growth and strong inflation. This supported the return of the general government balance to a surplus of 0.4% of GDP in 2022. The debt ratio is expected to drop significantly from 68.4% in 2022 to 63% in 2023, due to GDP growth and debt-reducing transactions (stock-flow adjustment).

HOUSING MARKETS

The nominal HPI (considering new and existing dwellings) increased by 17.3%, compared to 7.3% in 2021, while HPI increased even more by 22.5% in the capital Zagreb to 193.9 regarding the base year of 2015. Whereas the Adriatic coast residential dwelling prices grew at a rate of 12.9% (8.2% in 2021). The increasing trend of HPI is present for all urban areas in Croatia since 2015 and peaked in 2022.

Despite the decrease in 2020, the number of building permits issued increased in 2021 and 2022 to 16,654 in 2021 and 18,700 in 2022, representing a further 12.3% increase y-o-y in 2022.

MORTGAGE MARKETS

In August 2022, the average interest rate for housing loans indexed to foreign currency stood at 2.57%, down from 2.7% in the previous year and 2.98% two years ago, according to the Croatian National Bank (CNB).

Floating rates and interest rates fixed for up to 1 year indexed to foreign currencies average 2.81%, down from 2.87% a year earlier and 3.17% two years ago. Interest rates over 1 and up to 5 years indexed to foreign currencies averaged 2.57%, down from 2.75% in August 2021 and 2.94% two years ago, while rates over 5 years and up to 10 years were 2.51%, down from 2.54% in the previous year and 2.75% two years ago. Lastly, mortgage interest rates for over 10 year fixed periods were 2.53% fixed to foreign currencies, down from 2.86% a year earlier and 3.1% two years ago.

Rates for housing loans not indexed to foreign currency fixed for up to 1 year average 3.18%, down from 3.23% in August 2021 and 3.52% in August 2020. Interest rates over 1 and up to 5 years non indexed to foreign currencies averaged 2.84%, slightly up from 2.79% a year ago but down from 3.09% two years ago. Not indexed rates over 5 years and up to 10 years: 2.53%, down from 2.66% a year ago and 2.74% two years earlier, while rates over 10 years averaged 3.33%, up from 2.94% in August 2021 and 2.84% two years ago

Only about 11.6% of all new housing loans in August 2022 are floating rate (or with interest rate fixation (IRF) of up to 1 year), while 22.5% have an IRF between 1 and 5 years. The remaining 65.9% of all new housing loans have an IRF of more than 5 years.

Buoyed by very low interest rates, Croatia's mortgage market started to strengthen in 2017, when economic conditions improved. In August 2022, outstanding housing loans rose by 9.5% to HRK 72.7 billion (€9.66 billion) from a year earlier, according to the CNB, following y-o-y increases of 9% in 2021, 8.2% in 2020, 6.3% in 2019, 2.3% in 2018 and 0.6% in 2017.

One interesting trend has been the rise of kuna-denominated loans in the past four years. From a share of below 10% of the total outstanding housing loans from 2010 to 2015, the share of kuna-denominated housing loans not indexed to foreign currencies rose to more than 30% in 2021, according to the CNB. The mortgage market has developed significantly during the past decade, as the old large state-owned banks have been privatised, and commercial banks have been restructured, and Austrian, Italian and German banks have entered the market. There was a significant increase in building societies' share of loans, from 1% in 2003 to 5% recently.

MORTGAGE FUNDING

Mortgages are mainly funded by deposits. According to the Croatian National Bank, retail deposits grew. A covered bond law was introduced for the first time in April 2022, but has not yet been used.

GREEN FUNDING

Amongst the initiatives of the National Recovery and Resilience Plan, Croatia has undertaken the Reconstruction of Building initiative, to contribute to the wave of building reconstruction with energy-efficient and decarbonised building stock.

In the period leading up to 2030, the aim is to increase the rate of renovation to 3%, and to this end the Long-term Strategy for National Building Stock Renovation by 2050 was drafted. Renovation programmes have been envisaged in the Integrated National Energy and Climate Plan for the period 2021 – 2030.

	CROATIA 2021	CROATIA 2022	EU 27 2022
MACROECONOMIC VARIABLES			
Real GDP growth (%) (1)	13.1	6.2	3.5
Unemployment Rate (LSF), annual average (%) (1)	7.6	7.0	6.2
HICP inflation (%) (1)	2.7	10.7	9.2
HOUSING MARKET			
Owner occupation rate (%) (1)	90.5	91.1	69.1
Gross Fixed Investment in Housing (annual change)(1)	n/a	n/a	1.5
Building Permits (2015=100) (2)	239.6	269.1	125.8
House Price Index - country (2015=100) (2)	145.0	170.1	164.6*
House Price Index - capital (2015=100) (2)	158.3	193.9	163.8*
Nominal house price growth (%) (2)	7.3	17.3	10.6*
MORTGAGE MARKET			
Outstanding Residential Loans (mn EUR) (2)	9,004	9,932	6,743,197
Outstanding Residential Loans per capita over 18 (EUR) (2)	2,696	3,108	18,433
Outstanding Residential Loans to disposable income ratio (%) (2)	24.9	25.9	71.5
Gross residential lending, annual growth (%) (2)	0.2	67.0	-6.5
Typical mortgage rate, annual average (%) (2)	2.7	2.5	3.1

* Please note that this value is the simple average of the available values in 2022.

Sources:
(1) Eurostat
(2) European Mortgage Federation – Hypostat 2023, Statistical Tables.

CROATIA FACT TABLE

Which entities can issue mortgage loans in your country?	Commercial banks and housing saving banks.
What is the market share of new mortgage issuances between these entities?	Commercial banks dominate the market.
Which entities hold what proportion of outstanding mortgage loans in your country?	Commercial banks hold approximately 94.5%, and housing saving banks hold the rest 5.5%.
What is the typical LTV ratio on residential mortgage loans in your country?	Between 70 and 80%.
How is the distinction made between loans for residential and non-residential purposes in your country?	The '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.
What is/are the most common mortgage product(s) in your country?	Housing and mortgage loans.
What is the typical/ average maturity for a mortgage in your country?	Between 20 and 30 years.
What is/are the most common ways to fund mortgage lending in your country?	Deposits.
What is the level of costs associated with house purchase in your country (taxes and other transaction costs)?	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.
What is the level (if any) of government subsidies for house purchases in your country?	Low (in the part of government supported "Publicly Subsidized Residential Construction Program", through the governmental incentives for housing savings and through the limited government financial support for first housing property purchase).

Cyprus

By Ioannis Tirkides, Bank of Cyprus

IN A NUTSHELL

- → GDP growth recovered to 5.6%.
- → House prices have continued to rise from the low post recession levels.
- → Housing demand and residential construction remained strong.
- → Bank liquidity remains good.

MACROECONOMIC OVERVIEW

The economy rebounded strongly in 2021-22 growing by 6.6% and 5.6% respectively after a 4.4% contraction in 2020 due to Covid disruptions. Growth was driven by strong performances in services sectors, particularly information, communications, and professional and financial services. Tourist activity continued to rebound strongly in 2022.

Economic growth is expected to continue in 2023-24 but at a slower pace, mainly due to an expected deterioration of external demand and slower domestic demand caused by higher interest rates and high consumer price inflation. According to the European Commission's spring forecasts, GDP is expected to grow by 2.3% in 2023 and 2.7% in 2024. GDP growth will be materially supported by EU funding in the form of grants and loans from the Recovery and Resilience Facility (RRF).

Inflation measured by the HICP, was 8.1% on average compared with 8.4% in the Euro area. Inflation peaked in July at 10.6% and has been decelerating since. It is forecast to drop to 3.8% in 2023, according to the European Commission.

The general government budget turned into a surplus of 2.1% of GDP and the public debt dropped to 86.5% of GDP from 101% in 2021. According to the European Commission, the budget will remain in surplus in 2023 by 1.8% of GDP and public debt will continue to decline dropping to 80.4% of GDP.

In the banking sector, total non-performing exposures at the end of April 2023 was EUR 2.2 bn, or 9.0% of gross loans and the coverage ratio was 53.7%. Respectively, total non-performing exposures were EUR 3 bn at the end of April 2022, 11.4% of gross loans with a coverage ratio of 50.5%. Private debt measured by bank loans to residents excluding the government, stood at 77% of nominal GDP at the end of June 2023.

HOUSING MARKET

Home ownership has been declining since the financial crisis of 2012-14 reflecting the deep recession, high non-performing loans and tighter credit conditions. Home ownership peaked in 2013 at 74% and dropped to a low of 67.9% in 2019. Since then, it has increased to 69.6% in 2022 (EU average 69.1%).

New building construction, dropped from EUR 3.0 bn in 2008 to EUR 0.92 bn in 2014. Since then, it has recovered to EUR 2.9 bn in 2021, the latest available data. Construction of residential buildings rose from a low of EUR 0.4 bn in 2014 to EUR 1.8 bn in 2021 or 111% of 2008 values.

The long term performance of the construction sector lags the total economy. Average annual growth in construction in the period 1995-2022, was 2.2% compared with 2.9% in the economy. The volatility of the growth rate is much higher in construction. Construction activity dropped sharply in 2007-15 by a cumulative 61%, then recovered strongly in 2016-19. Real gross value added is still 25% lower than at the peak in 2007. The share of the sector's value-added in real terms dropped from 9.9% in 2007, to 4% in 2015 and then recovered to 5.8% in 2022.

Property sales fell by 82.3% in the period 2007-2013, then rose sharply in the period to 2022 at an average annual pace of 16.7%.

Prices, as measured by the Central Bank's residential property index, rose by a cumulative 17.7% in 2016-22, on an end-period basis, following a cumulative decline of 30% between 2008 and 2016. This increase was driven by apartments, up 32.6%, as opposed to houses which rose by 11.2%. Price increases in this period were greater in Limassol (28.6%) followed by Paphos (15.6%), Famagusta (15.2%), Larnaca (14.3%), and Nicosia (9%). In 2021, residential property prices increased by 2.6% on an end-year basis, and in 2022 by 6.6%.

Regional differences reflect differences in the composition of demand. In Limassol there is higher demand from non-residents related to the city's international business orientation. There is a high proportion of vacation and second homes in the Larnaca, Paphos and Famagusta regions where prices have been more volatile in both the contraction and the recovery. Nicosia is the largest region by population and the country's capital and features demand from locals, diplomats, and students.

The number of completed new dwellings in 2021 (latest available) was 7,357 compared with a low of 2,390 in 2015, and a peak of 18,195 in 2008. New dwellings were rising by 21% on average in 2015-2021. The total stock of dwellings at the end of 2021 was 473,000 having risen by 20% since 2008.

MORTGAGE MARKET

MARKET DYNAMICS

The mortgage market has been shrinking since the financial crisis of 2012-14, in absolute terms and relative to GDP as the banking sector restructures and deleverages. Total outstanding loans for house purchase at the end of 2022 were EUR 8.4 bn, 31.1% of GDP. This compares with EUR 12.7 bn, 65% of GDP in 2012. Loans for house purchase increased as a share of loans to residents (excluding the government) to 38.6% (from 24% in 2012) and as a share of all household loans to 76.5% (53.1% in2012). This indicates a higher degree of deleveraging in the period in non-mortgage loans.

New mortgage loans net of renegotiated amounts, have been rising since 2015, reaching EUR 1.2 bn in 2022 or 41.4% of total new loans net of renegotiated amounts, from EUR 0.3 bn or 16% of total in 2015.

Mortgage rates for new loans were declining since 2008 then started to rise since the second quarter of 2022, in anticipation of a tightening cycle by the ECB. The variable interest rate (up to one year initial rate fixation) for house purchase dropped from 6.5% at the end of December 2008 to 2.1% at the end of December 2019 to 3.3% at the end of December 2022 and 4.2% at the end of May 2023.

Loan performance of households and non-financial corporations deteriorated markedly in the aftermath of the recession from 2012 to 2014. Nonperforming exposures, as defined by the European Banking Authority, rose sharply in the period, and dropped significantly in its aftermath. The resolution of 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 in bank non-performing exposures. The sale of additional packages of problem loans since 2019, by the two largest banks, Bank of Cyprus and Hellenic Bank, continued to put downward pressure on the ratio of non-performing exposures.

Whilst there are no separate statistics for the performance of mortgages themselves, the performance of household loans, more than three quarters of which were mortgages at the end of December 2022, is indicative.

Non-performing exposures of the household sector have been declining steadily. At the end of December 2022, they were EUR 1.3 bn, or 12.1% of corresponding gross loans, compared with EUR 1.6 bn or 14.8% of gross loans at the end of December 2021. At their peak in early 2015, non-performing exposures of households EUR 13.1 bn or 52.3% of gross loans. There is a provisioning ratio of 35.4% and a high ratio of restructured facilities with the non-performing exposures of 38.9% at the end of December 2022.

NON-MARKET LED INITIATIVES

The property market in Cyprus is being affected by tax and legislative changes. Property tax was abolished in 2017. A 19% VAT on building land and on the leasing of commercial property for business purposes was introduced in 2018. In 2014, to attract foreign investors, the Council of Ministers established the 'Scheme for Naturalisation of Investors in Cyprus by Exception' which remained in place until November 2020 when it was abolished under the weight of implementation problems which exposed flawed procedures.

To help low-income households with non-performing loans and primary homes as collateral, the government introduced a subsidy programme subject to specific income criteria, in July 2019. Applicants whose applications have been approved will continue to benefit from the scheme in accordance with the restructuring that had been agreed. In March 2020, in response to the pandemic, the government introduced a series of measures including a moratorium on loan repayments including mortgages and an interest subsidy for eligible mortgage loans from March 1, 2020.

The government, in the context of its policies of social supporting has been working with the national parliament and the European Commission for a programme of reduced VAT to 5%, for the acquisition of a primary home subject to conditions. The final proposal has been approved by parliament in June 2023.

MORTGAGE FUNDING

Bank funding is primarily from customer deposits. Funding conditions are comfortable as reflected in the gross loans (not including provisions), to deposit ratio of 50.1% at the end of 2022, from 58% at the end of 2021. The loans to deposits ratio was higher than 100% in 2017. At the same time Cypriot banks have access to ECB funding. The securitisation legislation which has been enacted in July 2018 provides an additional funding tool.

GREEN FUNDING

Cyprus will receive EUR 1.0 bn in grants and EUR 227 mn in loans, from the Next Generation EU funds in the period 2020-26. Cyprus' Recovery and Resilience Plan submitted to the European Commission consists of 134 measures structured around 13 components and grouped in five policy areas. Policies and projects to green the economy will comprise 41% of the recovery funds, and digital transition will comprise 23%. Key investments include improving the energy efficiency of buildings and incentives to use renewables. Cyprus received the payment, of EUR 157 million in September 2021 following the approval of the national recovery plan the previous July. Cyprus received its first disbursement in December 2022, of EUR 85 million, following the passage of conditional legislation in parliament, and after approval from the European Commission.

	CYPRUS 2021	CYPRUS 2022	EU 27 2022
MACROECONOMIC VARIABLES			
Real GDP growth (%) (1)	6.6	5.6	3.5
Unemployment Rate (LSF), annual average (%) (1)	7.5	6.8	6.2
HICP inflation (%) (1)	2.3	8.1	9.2
HOUSING MARKET			
Owner occupation rate (%) (1)	69.8	69.6	69.1
Gross Fixed Investment in Housing (annual change)(1)	-2.6	6.0	1.5
Building Permits (2015=100) (2)	162.8	151.7	125.8
House Price Index – country (2015=100) (2)	102.7	106.7	164.6*
House Price Index – capital (2015=100) (2)	102.2	105.2	163.8*
Nominal house price growth (%) (2)	0.0	3.9	10.6*
MORTGAGE MARKET			
Outstanding Residential Loans (mn EUR) (2)	8,385	8,386	6,743,197
Outstanding Residential Loans per capita over 18 (EUR) (2)	11,573	11,461	18,433
Outstanding Residential Loans to disposable income ratio (%) (2)	55.2	48.8	71.5
Gross residential lending, annual growth (%) (2)	43.1	5.1	-6.5
Typical mortgage rate, annual average (%) (2)	2.2	2.6	3.1

* Please note that this value is the simple average of the available values in 2022.

Sources:
(1) Eurostat
(2) European Mortgage Federation – Hypostat 2023, Statistical Tables.

CYPRUS FACT TABLE

Which entities can issue mortgage loans in your country?	Financial institutions (banks and the Housing Finance Corporation HFC).
What is the market share of new mortgage issuances between these entities?	100%
Which entities hold what proportion of outstanding mortgage loans in your country?	Banks: 97% and HFC: 3%
What is the typical LTV ratio on residential mortgage loans in your country?	70%-80%.
How is the distinction made between loans for residential and non-residential purposes in your country?	Depending on the use of the house, then the loan is classified as residential or not i.e. residential is for primary home or holiday use.
What is/are the most common mortgage product(s) in your country?	Euro-denominated loans. Most of the loans are floating rates i.e. ECB base rate + spread. Fixed rate housing loans are also offered.
What is the typical/ average maturity for a mortgage in your country?	The average maturity is 22 years.
What is/are the most common ways to fund mortgage lending in your country?	Customer deposits.
What is the level of costs associated with house purchase in your country (taxes and other transaction costs)?	The costs associated with house purchase include VAT or a transfer fee (for property sales for which VAT has to be paid, no transfer fees will be applied); a mortgage fee and stamp duty (in case of mortgage loan)- and, lastly, the costs of title deeds.
What is the level (if any) of government subsidies for house purchases in your country?	Due to the pandemic, the government subsidised mortgage loans for 4 years if the purpose of the house is for own use. This program has ceased as of 31/12/2021. The Cypriot parliament has approved a government proposal for a programme of reduced VAT to 5%, for the acquisition of a primary home subject to conditions. The programme requires the final approval of the European Commission.

Czechia

By Martin Kotek, Jakub Seidler, Czech Banking Association

IN A NUTSHELL

- → The economy grew by 2.5%, compared to the pandemic-effected 2021, but it slightly declined in the second half of the year.
- → Inflation reached 15%, with average inflation above 10% expected for 2023.
- → House prices are decelerating year on year, developments are nevertheless heterogeneous across regions/types of property and a double-digit decline in prices from the peak in mid-2022 is already observed in some regions.
- → New mortgage origination fell by 60% last year and reached a decade-low in the second half of 2022.
- → Average interest rate exceeded 6% at the end of the year, triple their rate in mid-2021.

MACROECONOMIC OVERVIEW

The year was significantly influenced by the war in Ukraine. The economy shrank slightly in Q3 and Q4, leading to mild technical recession. Despite this, the economy grew more than expected according to estimates published after the onset of the war. The economy grew by 2.5% over the entire year. However, this was largely due to the low comparison base of the pandemic effected 2021. The average quarterly growth was only slightly positive, and the domestic economy largely stagnated in 2022. All in all, the economy coped relatively well with the geopolitical risks and energy-related issues.

Unemployment remained low (the lowest in the EU), despite a small technical recession in the second half of the year, and industrial production increased by 2%, due to strong output of the automotive industry. Despite the shift from Russian gas, it was possible – through a combination of savings and new sources of liquefied gas – to ensure an adequate supply of energy, avoiding more serious energy shortages.

However, the energy crisis exacerbated inflation, which reached 15.1% for the year, the highest since 1993. The main driver of inflation was housing-related costs, particularly the increase in electricity and gas prices. Additionally, food prices significantly contributed to inflation, with a year-on-year increase of 26% in December 2022 and an average of over 17% for the entire year 2022.

Due to accelerating inflation, the Czech National Bank continued to raise the main interest rate in the first half of the year, starting at 3.75% and reaching 7% by the end of June. During the second half of the year, and at the beginning of 2023, interest rates remained stable.

According to the latest estimates from the banking industry, the economy is expected to record a modest growth in 2023 of around 0.4%. Unemployment is projected to remain low with the labour market being tight, supporting wage growth of 9%. Inflation is expected to reach 11% for the entire year, gradually returning to the target 2-3% in 2024.

LOOKING AHEAD

Despite unfavourable conditions affecting demand for mortgages at the beginning of 2023, the mortgage market has become more active since March. Activity has increased compared to the second half of 2022. However, it is still 50% lower than pre-pandemic levels at the start of 2020. Although the activity in the mortgage market may gradually improve throughout the year as many households stop postponing mortgage decisions, it is likely to experience a 20 to30% decline after the 60% decline in 2022. This year-on-year fall in 2023 will be mainly due to the base effect, as the first half of 2022 was still relatively favourable.

Interest rates are expected to remain relatively stable throughout the year, as policy rates stay unchanged, and longer-term rates are expected to change only gradually based on market expectations.

Property prices have started to decline since the beginning of the year, based on activity data from the land registry. However, the development is heterogeneous across types of property and regions. Many regions have already had double-digit falls in property prices since the mid 2022 peak, with a lesser falls in Prague and new properties. A single average number for price development has limited explanatory power this year.

The Czech central bank reconsidered its macroprudential regulations and canceled DSTI limit since July 2023.

HOUSING MARKETS

Property prices increased by 16.8%, based on the harmonised House Price Index (HPI). Prices of new properties increased by 18.2%, while those of older properties increased 16.5%. However, due to a significant increase in mortgage rates during 2022 and the subsequent fall in mortgage demand, property prices started to slow down since mid-2022. Property prices experienced a -2.2% quarter-on-quarter (q-o-q) fall in Q4, the first quarterly decline since the end of 2013, when the economy experienced a mild recession.

The weaker level of housing sales was related not only to high interest rates (which have been above the 5% threshold since June 2022) but also to stricter macroprudential measures of the central bank. Additionally, the very high price-to-income ratio, which is among the highest in the EU, contributed to the decline in demand. Property price growth has been among the highest in the EU countries in the past decade, especially since 2020 growing faster than average wages (50% vs. 20%).

According to non-official statistics from the private company Dataligence (dataligence.cz), which analyzes property prices based on real transactions from the land registry, property prices peaked around mid-2022 and have been declining since. However, this has been very uneven across regions and types of properties. According to the same, prices of older flats in many regions have experienced a double-digit from mid-2022 to March 2023.

MORTGAGE MARKETS

Banks and building societies provided mortgage loans amounting to CZK 172 bn (a 62.6% y-o-y decline), excluding loans for refinancing this was CZK 149 bn (59.6% decline). Although 2021 had exceptional market activity and a decline in 2022 was expected, the activity was nearly 40% lower than in 2020. The first half of the previous year was still relatively strong, and it was only in the second half of 2022 that mortgage market activity significantly slowed. The number of new mortgages reached 20-year lows and sales volumes dropped by 83% in Q4 y-o-y.

The main reason for this is a decline of consumer confidence due to the economic development. High interest rates, growing household expenditure (including onhousing and basic consumer goods), as well as worsening affordability of housing, all drove the drop-in mortgage lending activity.

As the central bank continued to raise its interest rates, mortgage loans also rose with a small delay. The main central bank interest rate peaked at the end of June where it has remained since. Mortgage interest rates reached their maximum in Q4, as the average interest rate exceeded 6% level, three times higher than that in H1 2021. The average yearly mortgages interest rate was 4.61%, double the rate of 2021.

Increasing prices of consumer goods and household expenditure, particularly electricity and gas, significantly reduced household' repayment capacity. This, together with strict regulation of DTI and Debt Service-to-Income (DSTI) ratios, reduced the level of new financing.

Refinancing activity slowed down as offers by mortgage providers were comparable, varying by only 10 to 20 bps compared to an absolute rate of 6%. In addition, banks tried harder to keep customers when rates reset given the lack of new business opportunities for them.

As of April 1st, the central bank introduced tightened credit measures for DTI, DSTI and LTV ratios. The LTV cap tightened to 80% (from 90%), the DTI cap stood at 8.5% (for loan applicants younger than 36 years was 9.5%) and the DSTI cap was 45% (50% for people 36 years or younger).

These measures were driven by the intention to protect households from excess indebtedness in time of growing cost and thus to support the stability of the banking sector. This was among the major reasons for the slowdown in mortgage origination.

	CZECHIA 2021	CZECHIA 2022	EU 27 2022
MACROECONOMIC VARIABLES			
Real GDP growth (%) (1)	3.6	2.5	3.5
Unemployment Rate (LSF), annual average (%) (1)	2.8	2.2	6.2
HICP inflation (%) (1)	3.3	14.8	9.2
HOUSING MARKET			
Owner occupation rate (%) (1)	78.3	77.1	69.1
Gross Fixed Investment in Housing (annual change)(1)	-1.6	-1.4	1.5
Building Permits (2015=100) (2)	117.7	110.7	125.8
House Price Index – country (2015=100) (2)	197.3	211.0	164.6*
House Price Index – capital (2015=100) (2)	n/a	n/a	163.8*
Nominal house price growth (%) (2)	25.8	6.9	10.6*
MORTGAGE MARKET			
Outstanding Residential Loans (mn EUR) (2)	60,632	65,497	6,743,197
Outstanding Residential Loans per capita over 18 (EUR) (2)	6,983	7,693	18,433
Outstanding Residential Loans to disposable income ratio (%) (2)	44.5	42.3	71.5
Gross residential lending, annual growth (%) (2)	78.1	-61.0	-6.5
Typical mortgage rate, annual average (%) (2)	2.3	4.6	3.1

* Please note that this value is the simple average of the available values in 2022.

Sources:
(1) Eurostat
(2) European Mortgage Federation – Hypostat 2023, Statistical Tables.

CZECHIA FACT TABLE

Which entities can issue mortgage loans in your country?	In the Czech Republic, housing finance is raised by banks.
What is the market share of new mortgage issuances between these entities?	Banks represent 100% of the mortgage market.
Which entities hold what proportion of outstanding mortgage loans in your country?	There are 3 big retail banks, which together hold 75% of the mortgage loans outstanding volume in the Czech Republic.
What is the typical LTV ratio on residential mortgage loans in your country?	The Recommendations of the Czech National Bank set the maximum LTV at 80%, or 90% for customers younger than 36 years. Typical mortgage loan have an LTV close to 80%.
How is the distinction made between loans for residential and non-residential purposes in your country?	More than ¾ of the housing loans were provided for residential purposes.
What is/are the most common mortgage product(s) in your country?	The most common mortgage loan in 2022 was the loan for house/flat purchases secured by financed property with an interest rate fixation period of 3 to 5 years and a maturity of 25–30 years.
What is the typical/ average maturity for a mortgage in your country?	The Recommendation of Czech National Bank sets the maximum mortgage loan maturity at 30 years. Typical mortgage loans have a maturity that ranges from 25 to 30 years.
What is/are the most common ways to fund mortgage lending in your country?	Through a combination of deposits and covered bonds.
What is the level of costs associated with house purchase in your country (taxes and other transaction costs)?	Taxes and fees when buying/selling a property in the Czech Republic are the following: 1) Fee for record of the ownership change and fee for mortgage lien establishment to Real Estate Cadastre (state database) 2) Real estate agency fee (only for purchase intermediated by RE agency).
What is the level (if any) of government subsidies for house purchases in your country?	In a low interest rate environment and considering the generally positive macroeconomic development in throughout most of the year, a limited amount of subsidies was 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 if the housing was acquired by the end of 2020 and up to CZK 150,000 per year for housing acquired in 2021 and later. • Support for establishing social housing for disadvantaged people due to their age or health • Relaxed credit ratios applied for housing loans – LTV, DTI, DSTI - for loan applicants younger 36 years

Denmark

By Sarah Kirsten Rystrand, Finance Denmark

IN A NUTSHELL

→ The economy grew 3.8%, slightly more than the EU average of 3.5%.
→ The conflict in Ukraine and post-pandemic effects contributed to increasing interest rates.
→ Inflation has been driven primarily by increasing energy prices.
→ Sales of houses and apartments and prices started to decrease.

MACROECONOMIC OVERVIEW

The economy grew by 3.8% in real terms, 1 pps less than 2021. The drop was mainly driven by decreasing private consumption of goods and services and Government consumption expenditure, which fell 2.3%, and 3.5%, respectively. GDP growth was slightly above the EU average, 3.5%. Also, consumer prices increased by 7.7% in 2022.

The employment rate was stable at 76.6% - 76.7%. Unemployment increased from 4.4% in Q1 to 4.8% in Q4. The government budget surplus was 4.6%. Gross government debt was 30.1%, is low compared to other European countries. In June 2022 the deposit rate at the Central Bank was -0.6%, and rose to 1.75% by year end, due to high euro area inflation and the Danish central bank following the ECB's deposit rate hikes due to the fixed exchange rate policy between the DKK and EUR.

HOUSING MARKETS

Nominal house prices decreased by 6.3% over the year, reversing growth in the previous years, in 2021 they grew by 9.6%. Prices decreased more in the capital region, by the end of 2022, prices of houses in Copenhagen were 11.3% lower than the year before. Prices on owner occupied apartments in Copenhagen were 8.8% lower than the year before and decreased by 7.2% in general.

In total, 61,499 houses and owner-occupied flats were sold in 2022, far fewer than the 88,418 in 2021 - the highest level since the inception of the statistic. Increasing mortgage rates and other developments in the real economy have contributed to the lower housing market activity in 2022.

House completions rose by 8.6% in 2022. New house construction decreased by -23.1% and number of building permits issued dropped 2.9 pps compared with 2021.

MORTGAGE MARKETS

By the end of 2022, outstanding mortgage loans from mortgage banks amounted to DKK 3,119 bn of which approximately DKK 1,827 bn was for owner occupied housing. In addition, housing loans from commercial retail banks amounted to DKK 286 bn. In total, mortgage credit growth was 0.9% in 2022. Mortgage credit growth remains modest, and still much lower than in the mid-2000's, when growth rates were between 10% and 17%.

Mortgage lending activity in 2022 changed compared to previous years: Adjustable-rate mortgages have gained market share. Outstanding mortgage loans issued by mortgage banks are split between fixed rate mortgages (46.8% by year end 2022), mortgages with an interest reset under 1 year (23.4%) and mortgages with an interest reset above 1 year (29.9%).

Gross lending activity by mortgage banks continued at high levels. The lending activity was higher than 2021, but less than its all-time high in 2019. Total gross lending reached DKK 757.3 bn. Residential mortgages accounted for 68.7% of gross lending, 1.6 % pps more than in 2021. Gross lending activity is up by 20% compared to 2021. This increase can be explained by a higher level of re-mortgaging because of the higher interest rates. Loans with a value of approximately DKK 375 bn were re-mortgaged in 2022.

Fixed rate mortgages (typically fixed for 30 years) accounted for 49.8% of gross lending in 2022, a decrease of 9.1 pps compared to 2021. Adjustable-rate mortgages and interest reset mortgages accounted for 48.9%, and adjustable-rate mortgages with an interest rate cap accounted for 1.3%. The interest rates on fixed mortgage loans continued to rise during 2022 from a historically low level in 2021. 30-year fixed rate mortgages rose from 1.5% at the beginning of the year to 5% by year end. The short-term interest rate for borrowers was on average 1.29% in 2022.

Interest rates have been low for several years but are now rising due for several reasons – including central banks trying to control inflation. A possible reason for borrowers preferring adjustable-rate mortgages could be their expectations of future interest rates decreases when inflation is closer to the ECB's target of 2%. Also, the possibility to lower the monthly cost of the adjustable-rate loan compared to the fixed rated loan (at least on short term) may incentivise borrowers to choose adjustable-rate mortgages.

MORTGAGE FUNDING

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

The funding mix – for the main part bullet bonds or callable long-term bonds – adjusts continuously according to borrower demand. Bonds are tapped and bullet bonds behind interest reset loans are refinanced by the month end in March, June, September and December. December remains traditionally the largest refinancing date, however new bullet bonds have not been issued with maturity in December for the past years, spreading refinancing activity and hence the point risk more evenly across the year.

	DENMARK 2021	DENMARK 2022	EU 27 2022
MACROECONOMIC VARIABLES			
Real GDP growth (%) (1)	4.9	3.8	3.5
Unemployment Rate (LSF), annual average (%) (1)	5.1	4.5	6.2
HICP inflation (%) (1)	1.9	8.5	9.2
HOUSING MARKET			
Owner occupation rate (%) (1)	59.2	59.6	69.1
Gross Fixed Investment in Housing (annual change)(1)	9.9	7.8	1.5
Building Permits (2015=100) (2)	144.2	135.0	125.8
House Price Index – country (2015=100) (2)	135.2	136.5	164.6*
House Price Index – capital (2015=100) (2)	160.8	160.3	163.8*
Nominal house price growth (%) (2)	11.7	1.0	10.6*
MORTGAGE MARKET			
Outstanding Residential Loans (mn EUR) (2)	281,740	284,146	6,743,197
Outstanding Residential Loans per capita over 18 (EUR) (2)	60,110	60,179	18,433
Outstanding Residential Loans to disposable income ratio (%) (2)	175.4	168.1	71.5
Gross residential lending, annual growth (%) (2)	2.0	22.8	-6.5
Typical mortgage rate, annual average (%) (2)	0.7	1.3	3.1

* Please note that this value is the simple average of the available values in 2022.

Sources:
(1) Eurostat
(2) European Mortgage Federation – Hypostat 2023, Statistical Tables.

DENMARK FACT TABLE

Which entities can issue mortgage loans in your country?	Retail banks and mortgage banks.
What is the market share of new mortgage issuances between these entities?	Not available – data for residential reflect mortgage banks issuance only (not available for retail banks).
Which entities hold what proportion of outstanding mortgage loans in your country?	Over the past twelve months, the proportion (for owner-occupied housing) has been the following: • Retail banks 15% • Mortgage banks 85%
What is the typical LTV ratio on residential mortgage loans in your country?	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%.
How is the distinction made between loans for residential and non-residential purposes in your country?	The difference is whether you live in the house or not.
What is/are the most common mortgage product(s) in your country?	We have three typical types of loans: • Loans with Fixed rate; • Interest reset loans; • Loans with variable rate with and without cap.
What is the typical/average maturity for a mortgage in your country?	For new housing loans, the maturity is normally 30 years. For business loan, the maturity is typically 20 years.
What is/are the most common ways to fund mortgage lending in your country?	Covered bonds
What is the level of costs associated with house purchase in your country (taxes and other transaction costs)?	For new loans at DKK 1 million (EUR 134,000) with fixed rate the following apply: • Taxes going to state: Approximately DKK 17,000 (EUR 2,280); • Costs going to the Mortgage bank: Approximately DKK 10,000 (EUR 1,340).
What is the level (if any) of government subsidies for house purchases in your country?	The government doesn't have any role in house purchases.

Estonia

By Kaire Husu, Luminor Group

IN A NUTSHELL

- → GDP fell by 1.3%, after 8.0% post-Covid recover 2021.
- → Mortgage market continued to grow, with outstanding housing loans increased by 11%.
- → Housing prices were rising until early autumn and have been stable since then.

MACROECONOMIC OVERVIEW

GDP decreased by 1.3%. This followed a very strong rebound of 8.0% in 2021 after the pandemic. Economic activity declined as trade growth slowed, investments were postponed and private consumption dropped in the second half of the year. Private consumption levels remained high supported by the reform of the second pension pillar that made the participation voluntary and allowed people to withdraw money.

Despite the fall in economic activity, unemployment declined to 5.6%. Employment levels reached a new record, exceeding pre-pandemic peaks. This is especially encouraging in the light of an ageing society as more people are involved in the labour market. Although nominal wages increased by 8.9%, real purchasing power declined as prices increased twice as much.

Consumer prices increased strongly until August 2022 when energy prices peaked. The pace of the energy price increase slowed down from August as demand decreased trough weather conditions and supportive government policies. Overall average prices in 2022 were 19.4% higher than the year before.

The government budget deficit continued to decline, reaching 0.9% of GDP. Government debt is the lowest in Europe at 18.4% of GDP.

HOUSING MARKETS

Demand in the housing market boomed in early 2022 despite geopolitical tensions. According to Statistics Estonia, residential real estate prices were 22% higher than the year before. Most of the increase took place in late 2021 and until summer 2022. After the summer, the overall price level remained unchanged. The ability of households to buy real estate declined until summer but has improved since with more stable price levels and wage increases in the second half of the year.

On the supply side, the construction volume decreased by 1% in 2022. The number of completed dwellings was 6,521, a decline of 3% y-o-y. The majority (65%) of new dwellings are blocks of flats according to Statistics Estonia. The number of building permits issued decreased by 23% to 6,763. The number of transactions decreased by 15% to 61,092.

MORTGAGE MARKETS

High activity in the real estate market and rising prices are reflected in the strong growth in housing loans. In 2022 the mortgage market grew by 11% to EUR 10,488 mn, an historic high and equal to 30% of GDP. The average loan grew by 9.4% to EUR 54,586. The housing loan portfolio grew faster than GDP and household real incomes, so the debt burden of households increased.

Housing loans have maturities up to 30 years. Their average interest rate increased to 2.68% at year end. Borrowers can ask up to 85% of the property value with a standard contact structure and up to 90% if they qualify for the housing guarantee program supported by the government.

The share of borrowers with high loan service costs relative to their incomes has increased according to Bank of Estonia. The DSTI requirement states that the ratio of the payments due on the total liabilities of the borrower to their net income may not exceed 50% at the time of loan decision. The share of loans where the DSTI of the borrower is close to the limit at 45-50% is increasing. More than a quarter of all the new loans issued in 2022 had a DSTI in this range according to Bank of Estonia.

There was also a small rise in the share of loans with a high LTV, due to the sharp rise in real estate prices.

The mortgage market consists mainly of commercial banks. Housing loans account for approximately 44% of the aggregated loan and lease portfolio of the banks according to the Bank of Estonia. The banking sector is well capitalised and the quality of the housing loans remained good in 2022. Only 0.1% of housing loans are overdue by more than 60 days at year-end as reported by the Bank of Estonia. The importance and volume of this type of loans reflect the preference of households for homeownership over renting, as well as the concentration of the domestic market.

NON-MARKET LED INITIATIVES

The Bank of Estonia´s macroprudential policies remained broadly unchanged. Macroprudential measures are applied when necessary to prevent risks to the functioning of the financial sector and to increase the resilience of the sector. The Bank of Estonia kept the requirements for issuing housing loans unchanged. The requirements setting the maximum LTV of 85%, DSTI of 50% and a maximum maturity of 30 years have been in place since 2015. The housing loan requirements of the Bank of Estonia need the borrowing capacity of the household to be assessed assuming an interest rate of at least 6%. The Bank of Estonia has set up a limit of 50% of the DSTI ratio calculated in this way.

Credit institutions operating in Estonia must currently comply with the following macroprudential requirements of the central bank: (1) systemically important banks must maintain additional capital buffers of between 1% and 2% of risk-weighted assets; (2) banks using internal ratings-based method must apply the minimum risk weight floor for mortgages in their capital calculations; and

(3) all banks must comply with borrower-specific requirements for issuing housing loans. The systemic risk buffer rate remains at 0%. But if banks registered in Estonia has granted mortgage loans to residents of Lithuania, then a 2 % systemic risk buffer is applied from 1 July 2022.

The Bank of Estonia raised the countercyclical capital buffer requirement in autumn 2022 by 0.5% from 1% to 1.5% with effect from December 2023 as loan growth remains relatively strong even as economic activity has declined. This will ensure that sufficient capital is held to cover the risks that come from the earlier rapid growth in lending. The Estonian banking sector remains well capitalized, above the required level, so the change in regulation is currently not expected to need any response from the banking sector.

MORTGAGE FUNDING

The lending policy of banks for housing loans did not change particularly in 2022. 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 credits. The ratio of loans to deposits was around 80% at the end of 2022.

The share of market-based funding increased during 2022 compared to 2021. At the end of 2022 Estonia had EUR 2,100 bn covered bonds outstanding from which EUR 750 mn was issued as retained covered bonds and EUR 500 mn as public issuance in addition to earlier years.

	ESTONIA 2021	ESTONIA 2022	EU 27 2022
MACROECONOMIC VARIABLES			
Real GDP growth (%) (1)	8.0	-1.3	3.5
Unemployment Rate (LSF), annual average (%) (1)	6.2	5.6	6.2
HICP inflation (%) (1)	4.5	19.4	9.2
HOUSING MARKET			
Owner occupation rate (%) (1)	81.6	82.0	69.1
Gross Fixed Investment in Housing (annual change)(1)	-7.7	6.5	1.5
Building Permits (2015=100) (2)	157.0	121.0	125.8
House Price Index – country (2015=100) (2)	152.8	186.8	164.6*
House Price Index – capital (2015=100) (2)	n/a	n/a	163.8*
Nominal house price growth (%) (2)	15.1	22.2	10.6*
MORTGAGE MARKET			
Outstanding Residential Loans (mn EUR) (2)	9,449	10,488	6,743,197
Outstanding Residential Loans per capita over 18 (EUR) (2)	8,816	9,779	18,433
Outstanding Residential Loans to disposable income ratio (%) (2)	57.3	54.9	71.5
Gross residential lending, annual growth (%) (2)	38.8	16.1	-6.5
Typical mortgage rate, annual average (%) (2)	2.2	2.7	3.1

**Please note that this value is the simple average of the available values in 2022.*

Sources:
(1) Eurostat
(2) European Mortgage Federation – Hypostat 2023, Statistical Tables.

ESTONIA FACT TABLE

Which entities can issue mortgage loans in your country?	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.
What is the market share of new mortgage issuances between these entities?	Mortgage market consists mainly of commercial banks. The five banks that issued most of the housing loans in 2022 were Swedbank, SEB Pank, LHV Pank, Luminor and Coop Pank. LHV increased its market share from 9% to 11%. Luminor and Coop Pank market shares remained the same (11% and 4% respectively). The market shares of Swedbank and SEB Pank decreased slightly (43% and 28% respectively). Swedbank and SEB Pank remained the leaders in the market for housing loans.
Which entities hold what proportion of outstanding mortgage loans in your country?	Commercial banks hold the majority of outstanding mortgage loans.
What is the typical LTV ratio on residential mortgage loans in your country?	Eesti Pank has set a LTV limit of 85%.
How is the distinction made between loans for residential and non-residential purposes in your country?	Not available
What is/are the most common mortgage product(s) in your country?	30 year mortgage loan with floating interest rate.
What is the typical/ average maturity for a mortgage in your country?	Eesti Pank has set maximum mortgage maturity of 30 years.
What is/are the most common ways to fund mortgage lending in your country?	Commercial banks lending activities are covered mainly with domestic deposits.
What is the level of costs associated with house purchase in your country (taxes and other transaction costs)?	Not available
What is the level (if any) of government subsidies for house purchases in your country?	KredEx offers loan guarantees with state guarantee for purchasing and renovating homes. Additionally, loan payments can be partly subtracted from income tax payment.

Finland

By Mariia Somerla, Finanssiala

IN A NUTSHELL

- Despite challenging macroeconomic circumstances, GDP rose by 2.1% according to Statistics Finland's revised preliminary data.
- Housing demand declined, as buyers became more cautious and selling times increased.
- Thanks to its solid financial standing and sufficient liquidity reserves, the banking sector has been able to offer its customers flexibility in loan servicing during the crisis, which in turn has helped promote Finland's recovery from the crisis.

MACROECONOMIC OVERVIEW

Due to the political crisis in the Ukraine energy prices rose and sentiment in the Finnish housing market deteriorated. Consumer inflation increased, as it did elsewhere.

Finnish companies largely pulled out of the Russian market, causing Finland's exports in service and goods to Russia to shrink dramatically. The rise in general uncertainty reduced investment demand, component shortages created bottlenecks in production, and China's lockdowns and other reasons caused disruptions in supply chains. In Europe, an energy crisis loomed and rising inflation and interest rate hikes eroded household purchasing power. The growth forecast of the Finnish economy was revised significantly downward.

Despite this, GDP rose by 2.1% according to Statistics Finland's revised preliminary data. The employment rate of those aged 15 to 64 was 73.8% in 2022, which was 1.6 pps higher than in 2021.The employment rate has been increasing since 2016. Although real earnings decreased in 2022 due to the rise in inflation, the positive employment development was important for households' financial situation.

On the other hand, the macroeconomic and political development boosted investments in renewable energy, in which Finland is among the leading EU countries. In 2022, Finland's wind power capacity increased by 75% and brought more than EUR 2.9 bn in investments to Finland.

HOUSING AND MORTGAGE MARKET

The housing market differed over the course of the year.
In the first quarter, sales of older homes increased, but there was a shortage of new homes. The average lending margins on new housing loans were about 0.8% in January 2022 and the average repayment period of a new residential mortgage loan was 21 years.

The changes in the economic outlook were also reflected in the housing market. Buyers became more cautious and selling times grew. The post-pandemic boost faded, and the soaring heating energy prices, rising loan rates and increasing general uncertainty slowed the housing market. The steep rise in reference rates eventually pushed housing prices down after a good start to the year.

According to Finance Finland's banking barometer in early 2022, the demand for household loans fell significantly in the first quarter compared to the previous year. Bank managers also reported a low level of willingness to take out loans in the summer of 2022: for the first time in the history of the quarterly survey, not a single respondent expected demand to increase. Instead, respondents expected households to have an increasing need for grace periods and other flexible loan arrangements. In the latter half of 2022, home sales decreased from the previous year.

At the end of December, the stock of housing loans stood at EUR 108.5 bn, and the annual growth rate was 0.5%. Investment property loans (e.g., buy-to-let) accounted for EUR 8.8 bn of this. Nonperforming loans were 1.0% of housing loans (Q4 2021: 1.1%).

Interest rates rose, at the end of 2022, the average interest rate was 1.97% on housing loans (0.78% in 2021) and 2.1% on investment property loans (0.91% in 2021).

At the end of December 2022, the stock of loans to housing corporations was EUR 42.3 bn. In general, loans taken out to construct a residential building in Finland are recorded on the establishing housing company's balance sheet. The loan portfolio of housing companies therefore grows as a direct result of new construction. The term 'housing corporation' encompasses all corporate forms of housing owners, not just limited-liability housing companies. Some of the housing corporation loan volume is held by households, some by housing investment funds and other housing investors, and some by companies.

MORTGAGE FUNDING

Banking sector liquidity remained strong. The average liquidity coverage ratio (LCR) was 176% at year end (178% in 2021), well above the 100% limit set in regulation and slightly higher than the EU average (EBA Q3 2021: 162%). The average LCR of smaller - small and medium-sized banks directly supervised by the FIN-FSA - improved markedly in 2022, reaching 167% at the end of the year (152% in 2021). The quality of Finnish banks' LCR reserves was good overall: 97% of the reserves consisted of the most liquid assets, i.e. level 1 assets.

The banking sector's average NSFR stood at 119% at yearend, well above the 100% minimum requirement but slightly below the EU average (EBA Q3 2022: 127%). All Finnish banks exceeded the minimum requirement: the lowest NSFR was 107%. The substantial increase in central bank funding has raised the asset encumbrance (AE) ratio of European banks. In Finland, the AE ratio has been at a fairly high level for a long time due to banks' reliance on covered bonds, but it has remained stable. At the end of 2022, the AE ratio stood at 29% (29.3% in 2021), which is roughly the same as the EU average (EBA Q2 2022: 28.6%).

In planning for their funding activities, Finnish banks have prepared for the release of the pandemic build-up of household and corporate deposits when household consumption returns to normal levels and the investment demand of companies is revived. Strong liquidity buffers, relatively diverse and decentralised funding channels as well as low market funding costs made possible by a solid capital position protect Finnish banks from risks related to a potential decline in deposit funding. A relatively small share of Finnish banks' funding consists of central bank funding, which also reduces the refinancing risk related to the maturity of central bank funding.

	FINLAND 2021	FINLAND 2022	EU 27 2022
MACROECONOMIC VARIABLES			
Real GDP growth (%) (1)	3.0	2.1	3.5
Unemployment Rate (LSF), annual average (%) (1)	7.7	6.8	6.2
HICP inflation (%) (1)	2.1	7.2	9.2
HOUSING MARKET			
Owner occupation rate (%) (1)	70.3	69.5	69.1
Gross Fixed Investment in Housing (annual change)(1)	5.8	7.0	1.5
Building Permits (2015=100) (2)	140.7	115.8	125.8
House Price Index – country (2015=100) (2)	109.1	109.4	164.6*
House Price Index – capital (2015=100) (2)	140.7	139.9	163.8*
Nominal house price growth (%) (2)	3.8	0.3	10.6*
MORTGAGE MARKET			
Outstanding Residential Loans (mn EUR) (2)	107,759	109,315	6,743,197
Outstanding Residential Loans per capita over 18 (EUR) (2)	23,988	24,224	18,433
Outstanding Residential Loans to disposable income ratio (%) (2)	76.4	73.8	71.5
Gross residential lending, annual growth (%) (2)	-14.8	-13.9	-6.5
Typical mortgage rate, annual average (%) (2)	0.8	3.3	3.1

* Please note that this value is the simple average of the available values in 2022.

Sources:
(1) Eurostat
(2) European Mortgage Federation – Hypostat 2023, Statistical Tables.

FINLAND FACT TABLE

Which entities can issue mortgage loans in your country?	Credit institutions
What is the market share of new mortgage issuances between these entities?	Credit institutions 100 %
Which entities hold what proportion of outstanding mortgage loans in your country?	Banking groups hold 100% of the housing loan stock (Banking groups include mortgage banks as subsidiaries).
What is the typical LTV ratio on residential mortgage loans in your country?	Loan-to-Collateral (LTC): First time buyers 80% (median, new loans) others 60% (median, new loans).
How is the distinction made between loans for residential and non-residential purposes in your country?	Not available
What is/are the most common mortgage product(s) in your country?	Housing loan
What is the typical/ average maturity for a mortgage in your country?	25 years
What is/are the most common ways to fund mortgage lending in your country?	Deposits and covered bonds
What is the level of costs associated with house purchase in your country (taxes and other transaction costs)?	2% transaction tax for apartments, 4% transaction tax for real estates (first time buyers are exempted from both).
What is the level (if any) of government subsidies for house purchases in your country?	First time buyers are exempted from transaction tax. Interest expenses on housing loans are tax deductible up to 5 % (in 2022).

France

By Bertrand Cartier, Groupe BPCE (Banques Populaires-Caisses d'Epargne)

IN A NUTSHELL

- → Property prices of existing dwellings increased by 6.3% despite a slowdown in Q4 2022 and a strengthening of a slight downtrend in the tightest areas such as Paris and Lyon.
- → Home sales remained close to an all-time high, supported by sales of existing homes while new home sales collapsed to a level close to the pandemic year of 2020.
- → Despite interest rates doubling over the year, loan origination fell by only 3%, although there was a more marked drop in the second part of the year (-12% compared to H2 2021).
- → Housing starts did not increase in line with the number of building permits issued (+3%, boosted by the filing of permits related to "RE2020") and fell by -6%.
- → Government housing policy increasingly emphasizes the renovation of existing housing, with boosted supports for the financing of energy renovations and regulatory constraints.

MACRO-ECONOMIC OVERVIEW

GDP increased by 2.5% after +6.4% in 2021 (vs. -7.5% in 2020 due to the pandemic). The labour market was still very resilient with unemployment falling to 6.9% at Q4 2022 (-0.3pps over one year), its annual lowest level since the GFC in 2008 and an employment rate (of 15-64 years old) remaining at its highest level since 1975 at 68.3% (+0.5 pps above its level of Q4 2021), boosted by the higher employment of younger (+5.5pps over the last 3 years, at 35%), of 25-49 year old (its highest level since 2008, at 83%) and of 50-64 year old (its highest level since 1975, at 66%). The France 10-year government bond stood at 1.7% in average in 2022, reaching 3% at the end of 2022.

Business failures increased to 41,249 failures in 2022 (up 49% compared to 2021) but they remained at a low level compared to last decades (19% lower than in 2019). In the building sector, business failures increased by 38% to 8,375 (-25% compared to 2019) and in real estate activities by 11% to 1,359 units (-17% vs. 2019).

Impacted by the consequences of the conflict in Ukraine, HICP inflation increased by 5.9% in 2022 (vs. +2.1% in the previous year), mainly linked to the cost of energy and food but limited by the public tariff shield on gas and electricity price. With an annual increase of 5.0% in Household Disposable Income, the net purchasing power of households remained stable in 2022 (+0.2% vs 2021). Household consumption increased by 2.1% compared to last year, although it decreased in the last quarter (-0.8% vs. Q3 2022). The savings rate accelerated during the year to reach 18.6% in Q4 2022, reaching an annual average at 17.5% (-2.5pps vs. 2021) and remaining above its pre-pandemic level (+1.6pps vs. 2019).

LOOKING AHEAD

According to forecasts from Banque de France in June 2023, GDP growth is expected to be at 0.7% in 2023, with an annual inflation rate (HICP) at 5.6%. The saving rate is expected to stay near 16.5%, taking time to converge to its pre-pandemic level due to uncertainties including inflation. The expected deterioration in household purchasing power could generate a decline in household consumption (-0.1%).

In the context of higher ECB rates, French banks are expected to apply higher interest rates to adjust to new financial conditions in the Eurozone. The surge in financial costs combined with housing prices still on the rise in Q1 2023 kept reducing the housing purchasing power of households.

Taken in September 2021 and became legally binding since 2022, the High Council for Financial Stability (HCSF) has imposed for new home loans a maximum DSTI ratio at 35% and a maximum maturity at 25 years (+2years in certain situations), according also a 20% maximum flexibility margin of the total quarterly lending which is quarterly authorized to be out of the best practices recommendations. HCSF made in June 2023 two technical adjustments to the framework of best lending practices that do not alter nether the overall structure nor scope of this measure, notably by raising from 20% to 30% the share inside the 20% flexibility margin that can be used to grant buy-to-let investment loans. Those evolutions will not change the current tendency of the housing market.

If the number of transactions could decrease by 19% in 2023 for existing properties and by 13% for newly built homes, housing prices would only drop slightly for existing homes (-5%) and could be stable for new homes. Consequently, new home loans granted to households may diminish by 30% compared to 2022 and the annual growth of outstanding residential loans may drop at +2% annually in 2023 (vs. +5.5% in 2022).

The recent and expected increases of energy prices will reinforce the attractiveness of energy-efficient homes and will support household demand for renovation. The higher importance of energy performance criteria is still changing housing demand and adds a new factor curbing the upward trend of existing dwelling prices for the coming years (especially for the less efficient homes).

HOUSING MARKETS

The housing stock was 37.6mn units at the beginning of 2022 (553 homes for every 1,000 inhabitants). It is 81.9% main residences (the Paris region alone representing 16% of the total main residences in France), 9.8% second homes and 8.3% vacant. Home ownership of a main residence was 58% (stable since 2010), with a share of homeowners with no home loan outstanding at 37%. 55% of homes in France are individual houses but this is continuously declining.

Sales of existing dwellings reached 1,15mn units in 2022, decreasing annually by 5% (close to the historical record of 2021), representing 84% of all transactions. Housing prices increased by 6.3%, at a slightly slower pace than 2021 (+6.7%) which was the fastest annual increase since 2007. They reached their highest historical level for almost all areas, excepted for Paris city (-1.1% y-o-y). Household demand for homes after the pandemic has been in favour of single-family detached houses and small/medium cities in provincial France. As the previous year, house prices recorded in 2022 a stronger increase (+7.8% Y-o-Y) than for flats (+4.2%), like housing prices in provincial France (+7.9%) compared to Paris region (+2.0% y-o-y, but +3.5% excluding Paris city).

Considering real estate developers, newly built home sales did not continue the rebound of 2021 but dropped by 14% to 112,100 units, close to the low level of 2020 (110.000 units). Available for sale homes decreased by 5% to 113,100 units. The stock of homes for sale increased over one year by 11% at 117,400 units, representing in Q4 2022 around 15 months of average sales. Despite the beginning of interest rate hikes and falling demand, the rise in prices continued to increase with +5% for new flats (average sale price of EUR 4,602 per square meter) and +4% for new houses (average sale price of EUR 345,223 per house).

Sales of single-family detached homes plummeted by 30% in 2022 to 96,000 units, mainly due to the very sharp increase in builder's costs which was passed on to buyers (its traditional client base is made up of first-time buyers and households with wages below the national average).

The total number of housing permits (485,700 units) increased by 3%, with +11% for multifamily residential (297,800 units), -14% for single-family detached homes (137,000 units) and +18% for collective residences (notably in favour of students and seniors with 50.900 units). The implementation of the new energy regulation "RE2020" concerning building standards on 1 January 2022 accelerated file applications at the end of 2021 and, consequently, the number of processed files during 2022. However, in a context of rising global costs and shortage of raw materials, the number of housing starts for multifamily residential (212,500 units) annually decreased by 7%, reaching its lowest level since 2015, and those for collective residences by -9% (33,200 units), while those for single-family detached homes remained at a high level at 123.500 units in comparison with the last ten years (but -2% versus 2021).

MORTGAGE MARKETS

MARKET DYNAMICS

Linked to the annual decrease of 8% for total sales and an increase of 6% in housing prices, new home loans for households declined by 5% to EUR 259.7 bn. Excluding loan transfers and renegotiations, new loans amounted to EUR 217.1 bn, down by 3% compared to the previous year. Renegotiated loans amounted to EUR 42.6 bn, decreasing by 14% (at 16% of the total new home loans, -2 pps over one year). Outstanding home loans rose by 5.5% to EUR 1,281 bn at the end of 2022.

Despite the near doubling of average rates on home loans (from 1.12% in January to 2.05% in December for the Narrowly Defined Effective Rate), they remained very low on a historical perspective and still negative in real value (in comparison with +5.9% for HICP in 2022). Meanwhile, the average maturity reached 22 years (vs. 21.5 years in 2021). 58% of new loans had a maturity between 21-25 years (+6pps vs. 2021) and 6% beyond 25 years (-1pps vs. 2021). The average LTV at origination fell to 83.1% (-0.2pps vs. 2021) and the share of new loans with LTV higher than 100% declined by 1.7pps to 22.9%. Moreover, the average DSTI ratio at origination was at 29.9% (-0.2pps compared to the year before).

Lending criteria for new home loans continued to tighten in 2022, notably linked to the strict respect of the HCSF recommendation by credit institutions related to the DSTI ratio and the maturity of new loans. However, HCSF allowed banks to originate up to 20% of their loans each quarter with a DSTI ratio and/or a maturity above its recommendation, with at least 80% of this flexibility margin concentrated on loans for the purchase of a main residence and at least 30% for first-time buyers. In 2022, 78% of loans were for main residence purchases and 37% of the total production were for first-time buyers (representing 50% of new loans for the purchase of a main residence).

Thanks to 99% of new home loans originated in 2022 at a fixed rate (as recent years) and with 97% of the outstanding are back by some form of security, risks stayed restrained. The NPL ratio stood at 0.95% at the end of 2022, its lowest level since 2009 and the cost of risk for home loans remained very limited at 1 bp in 2022.

NON-MARKET LED INITIATIVES

Under the 20% flexibility margin accepted by the HCSF recommendations, around 14% of new home loans granted in 2022 did not meet those criteria. More specifically, the share of new loans with a non-compliant DSTI ratio was under 14% of the total and the share of loans with a non-compliant maturity dropped under 1% over the same period.

The share of new loans characterized by a DSTI ratio between 33% and 35% grew in the total production from 18% in Q1 2022 to 24% in Q4 2022. Moreover, the share of loans respecting the HCSF recommendation with a maturity between 25 and 27 years increased versus 2021, quarterly fluctuating between 4% and 6% of the total production. This occurred at a time of rapid housing price growth and rising interest rates (which were limited by the French usury rate mechanism). The usury rate, legally imposed by the French government and monitored by the Banque of France, is the maximum rate (all costs included, i.e. Annual Percentage Rate of Charge) updated every quarter at which a bank can lend money to households. The usury rate was 3.05% in Q4 2022 for new home loans with a maturity above 20 years when the APCR was 2.68% for new home loans granted in Q4 2022.

Various regulations concerning energy transition put pressures on owners of less efficient homes to undertake renovation works or to sell their homes (before being required to undertake renovations). Since August 2022, it is not possible to increase the rent of a home with an Energy Performance Certificate (EPC) "F" or "G" (which is 20% of the private rental stock according to governmental data as of January 2022).

Besides, the goal of zero net artificialisation of soils in 2050 imposed by the French government, with a first step of a division by 50% of the artificialisation of soils as of 2031, has already limited the development of new construction sites, particularly for single-family detached homes.

ANY FURTHER IMPORTANT EVOLUTION

From February to December 2023, the usury rate (which limited the rise in interest rates) will be calculated on a monthly rather than a quarterly basis and will cause interest rates charged on home loans to catch up with prevailing eurozone interest rates quicker in 2023.

Housing policy is increasingly oriented towards the rehabilitation of existing dwellings. Since January 2023, it is not possible to rent the most energy-consuming homes (1.8% of the 7.960mn homes of the private rental stock as of January 2022). From January 2025, this ban will concern all homes characterized by an EPC "G" (8.5% of the private rental stock), from 2028 all homes with an

EPC "F" (11.4% of the private rental stock) and from 2034 all homes with an EPC "E" (23.3% of the private rental stock).

There are fewer incentives for buy-to-let investment, especially for newly built homes (only 44% were sold for this purpose in 2022 compared to an average of 50% since 2015 excluding 2020). Regulatory pressures (capping of rent increases at 3.5%, more cities concerned by rent controls, progressive constraints weighing on energy-intensive housing) don't encourage households to increase their exposure to the rental segment, whose profitability is particularly impacted by inflation.

MORTGAGE FUNDING

As home loans are mainly distributed by retail banks, they are mostly funded by deposits. Private customers deposits reached EUR 2,714bn at the end of 2022 (+3% vs. 2021), 68% came from households and 32% from non-financial corporations. Households continued to accumulate savings (+1% for overnight deposits versus 2021, at EUR 636bn) but at a slower pace than inflation and increased their use of consumer loans (+3% of new loans vs. 2021, at EUR 63.9bn excluding renegotiated loans in 2022). A distortion in the structure of deposits took place in 2022 in favour of interest-bearing accounts and to the detriment of overnight deposits, leading to an increase in the cost of financing for banks in the H2 2022.

Concerning mortgage funding, the total amount of the French covered bond stock stood at EUR 244.3bn (Fact Book 2023, European Covered Bond Council) at the end of 2022, equal to 19% of the outstanding home loans, with new issuances annually amounted to around EUR 35 bn (equal to 16% of the 2022 production of new home loans, versus 8% in 2021).

Outstanding RMBS was EUR 87.2 bn as of Q4 2021, compared to EUR 86.2 bn on year prior, marking a yearly increase of 1.17%. Total RMBS issuance, in turn, was EUR 25.6 bn, following an increase of 107.1% compared to 2021's EUR 12.4 bn end year value.

GREEN FUNDING

The major support came from a public financial aid called "MaPrimRenov'", available for all owners of a main residence (self-occupied or rented) and for co-ownership properties. 670,000 homes were renovated in 2022, representing EUR 3.1bn of financial aid and EUR 8.9bn in work generated. Concerning 90% of MaPrimRenov' cases, 66% of renovation works concerned the heating and domestic hot water; insulation of walls, roofs or attics represented a share of 20% in the total volume of renovation works; air recycling and energy audit of the home counted for 6% each.

To renovate a home, various financial aid measures exist (like MAPRIMRENOV', Energy Saving Certificates "CEE", reduced VAT for some renovation works, …) and can be combined with a bank loan, which includes a zero-interest rate loan named "Eco-PTZ". It is a loan subsidised by the state for the financing of a set of energy improvement works carried out by certified professionals in existing homes used as a main residence by its homeowner or by a tenant. 82,071 Eco-PTZs were granted in 2022 (+35% compared to 2021), representing EUR 1.1 bn borrowed.

The government has pushed for the renovation work to be done in one go and not in several actions spread over time. 65.939 "overall renovations" of homes were financed in 2022, representing EUR 800mn of financial bonus and EUR 1.7bn in work generated. Moreover, the maximum duration for an Eco-PTZ financing an "overall renovation" has increased from 180 to 240 months and the maximum borrowable amount from EUR 30td to EUR 50td (+1,000 loans compared to 2021, but only representing 2,053 loans in 2022). Eco-PTZ declarations for co-ownerships are few (75 requests were accepted in 2022), mainly explained by a need to vote on the work at a general meeting of co-owners and an acceptance of most of them.

	FRANCE 2021	FRANCE 2022	EU 27 2022
MACROECONOMIC VARIABLES			
Real GDP growth (%) (1)	6.4	2.5	3.5
Unemployment Rate (LSF), annual average (%) (1)	7.9	7.3	6.2
HICP inflation (%) (1)	2.1	5.9	9.2
HOUSING MARKET			
Owner occupation rate (%) (1)	64.7	63.4	69.1
Gross Fixed Investment in Housing (annual change)(1)	14.8	-1.8	1.5
Building Permits (2015=100) (2)	115.6	119.6	125.8
House Price Index – country (2015=100) (2)	124.6	132.4	164.6*
House Price Index – capital (2015=100) (2)	134.3	132.8	163.8*
Nominal house price growth (%) (2)	6.7	6.3	10.6*
MORTGAGE MARKET			
Outstanding Residential Loans (mn EUR) (2)	1,214,582	1,280,950	6,743,197
Outstanding Residential Loans per capita over 18 (EUR) (2)	22,839	23,971	18,433
Outstanding Residential Loans to disposable income ratio (%) (2)	75.5	75.6	71.5
Gross residential lending, annual growth (%) (2)	8.6	-5.2	-6.5
Typical mortgage rate, annual average (%) (2)	1.1	1.5	3.1

* Please note that this value is the simple average of the available values in 2022.

Sources:
(1) Eurostat
(2) European Mortgage Federation - Hypostat 2023, Statistical Tables.

FRANCE FACT TABLE

Which entities can issue mortgage loans in your country?	About 340 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).
What is the market share of new mortgage issuances between these entities?	The three main categories of credit institutions involved in property lending are in France: • Mutual and cooperative banks, still with the largest market share for many years and at its highest historical level for its market share of new lending in 2020-2022 (78.1% as of June 30, 2022 for the total outstanding home loans, according to ACPR) • Private banks (20.1% as of June 30, 2022 for the total outstanding home loans); • Specialised institutions are characterized by a market share near zero in 2022.
Which entities hold what proportion of outstanding mortgage loans in your country?	Six groups and their subsidiaries (3 Mutual, 2 Private and 1 Public) represent most of new lendings and of the total amount of home loans; Digital credit (Tel and Internet) is emerging with new players and developing with the offers of traditional banks, but still with a limited market share.
What is the typical LTV ratio on residential mortgage loans in your country?	In 2022, the average LTV ratio was 83.1%, down by 0.2 pp versus 2021.
How is the distinction made between loans for residential and non-residential purposes in your country?	French banking regulation require a distinction depending on the purpose of the loan (residential or non-residential). Thus, applicable conditions differ for every kind of financed asset and the ACPR publishes statistics identifying the residential financing of households.
What is/are the most common mortgage product(s) in your country?	The most common product is a fixed-rate over the total duration of the loan. In 2022, more than 99% of the new credits were fixed-rate loans. More than 60% of new loans are guaranteed by an insurance or a collateral provided by a specialized financial institution (and not with a registered mortgage). 70% of new lending are a fully amortized loan (versus 4% of interest only loans).
What is the typical/average maturity for a mortgage in your country?	In 2022, the average maturity of home loans was 22 years, slightly increasing from the year before (21.5 years).
What is/are the most common ways to fund mortgage lending in your country?	Traditionally, the main sources of funding real estate lending in France are the households' and companies' deposits (even term deposits or passbook savings accounts) and bonds.
What is the level of costs associated with house purchase in your country (taxes and other transaction costs)?	In France, the purchase costs depend on the new or existing nature of the purchased house: • Existing properties: 7-8% 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 which have a 5.5%, and 10% for some intermediate sales).
What is the level (if any) of government subsidies for house purchases in your country?	As regards new housing, the VAT may be affected by standard abatement. Furthermore, first-time buyers may benefit from a zero-percent loan (supplemented by the government) for the purchase of a main residence, which can cover up to 40% of the global cost of the operation with a maturity between 20 and 25 years, notably depending on: • the area (four areas are defined by law, according to the local real estate market situation: more or less densely-populated areas); • the household composition and income. Several other schemes exist to support low-income buyers (PSLA: renting with option to buy or a new form of community land and trust) and the rental investment (Pinel scheme: granting a tax reduction for private landlords balanced by a limited level of rental tariff). Several incentives have been shortened, for example the zero-percent loans. But other incentives are in place in order to support the purchases of existing homes to renovate (Denormandie scheme, "Eco-PTZ", "Prêt Avance Renovation" which is a mortgage loan for low-income households wishing to finance energy renovation work in their home).

Germany

By Thomas Hofer, vdp

IN A NUTSHELL

- → Gross domestic product grew by 1.8%.
- → Significantly higher mortgage rates in 2022 make housing less affordable and reduce demand for new housing loans.
- → For the first time since 2009, gross lending for residential property fell on a y-o-y basis.
- → As the housing shortage persists, demand for housing is now increasingly being directed towards the rental market. As a result, new rental contracts in the housing market are rising faster than in previous years.

MACROECONOMIC OVERVIEW

The economy grew by only 1.8%. At the end of the year, the decline in production meant that economic output was even lower than before the outbreak of the pandemic. Ongoing supply problems with intermediate products, energy price volatility and a shortage of labour reduced production and prevented growth.

Overall, the labour market has recovered relatively well from the pandemic disruptions and has not suffered from the current difficult macroeconomic conditions. After rising from 3.0% to 3.7% in 2020 and 2021, the unemployment rate recovered in the course of 2022, averaging 3.1% for the year. The number of people in employment rose slightly again in Q4 to around 45.6 million (+1% y-o-y).

Consumer price inflation accelerated very sharply, averaging 6.9% for the year, and reached record levels in recent months. In February 2023, the inflation rate was 8.7%, close to the peak of 8.8% in October and November last year. Energy prices appear to have peaked. In particular, the price caps for electricity and gas have had a dampening effect on inflation since December.

After barely changing during the two pandemic years, Germany's population reached a new high of 84.3 mn in 2022. The growth was driven by immigration, not only but mainly by Ukrainian refugees.

HOUSING MARKET

The ECB's normalisation of monetary policy, which began in spring 2022, lead to higher financing costs and yield requirements, so that the demand for residential property investment fell significantly in the second half of 2022, and the steady price increase that had previously lasted for more than a decade turned into a sideways movement or decline.

On average, prices for owner-occupied residential property rose significantly by 9% compared to 2021, but the rate of increase slowed steadily. In the fourth quarter of 2022, prices declined in the quarter for the first time.

The main reasons for the fall in demand for housing were rising interest rates on loans, combined with the fact that house prices remained high while construction costs have risen, making households reluctant to buy. Even in the market for existing property, higher financing costs, particularly in markets where prices have risen sharply in recent years, have led to a reduction in demand for owner-occupied housing. While new construction activity has declined as a result of higher construction costs, excess demand for housing remains.

After the construction boom of recent years, inflation and supply constraints hit the industry hard. While completions rose slightly from 293,000 to 295,000 dwellings, building permits for new housing fell sharply (from 381,000 to 354,000 units). Even though construction activity is twice as high as in 2009, there is still a shortage of housing, especially in the larger cities and their surrounding areas. Given the ongoing shortage of housing, demand for housing is now increasingly shifting to the rental market as financing conditions tighten. As a result, new rents in the residential market are rising faster than in previous years.

In 2023 investors are expected to hold back as construction costs rise and financing conditions tighten. However, given the still strong demand for housing and the efforts of policymakers and the construction industry, construction activity is expected to increase in the medium term.

The number of existing home transactions fell sharply in 2022. A total of 480,000 detached and semi-detached houses, apartments and condominiums changed hands in 2022, 20% fewer than in 2021.

MORTGAGE MARKET

The ECB's exit from its low interest rate policy had a significant impact on financing conditions over the course of the year. The average interest rate on residential mortgages rose from 1.5% in the first quarter to 3.45% in the last quarter.

This has made it more difficult to buy a home or invest in rental property. The price increases in the German property market over the past decade, combined with the sharp rise in financing costs, have significantly reduced the affordability of residential property. In addition, the return requirements for property investments have risen as other asset classes, such as bonds, have become more attractive in relative terms. Demand for financing is also likely to remain subdued until the current period of uncertainty about future price and interest rate developments is over.

These developments are reflected in banks' lending activity. Gross lending for housing fell to EUR 273.5 bn (-8.7% y-o-y), this development had two parts: record volumes were lent in the first half of the year, partly due to pull-forward effects in anticipation of rising rates, loan commitments declined significantly in the second half of the year. Growth in the volume of outstanding loans slowed slightly, rising by 5.6% to EUR 1.84 bn.

While the affordability of credit-financed home purchases has decreased, the impact of the new interest rate environment on existing loans is limited due to long-term fixed interest rates and high repayments.

MORTGAGE FUNDING

In Germany, banks' main funding instruments for housing loans are savings deposits and covered bonds (Pfandbriefe). Germany has one of the largest markets representing a significant share of the total covered bond market. Volume outstanding in Pfandbriefe increased as bonds worth nearly EUR 82 bn were issued (2021: EUR 65 bn). The primary market was boosted by record mortgage lending figures and early repayment of TLTROs and corresponding release of ECB collateral in the shape of retained Pfandbrief issues.

In 2022 Mortgage Pfandbrief issuance was EUR 67 bn (EUR 46 bn in 2021), Public Sector Pfandbrief issuance was EUR 14 bn (2021: EUR 18 bn) and Ship Pfandbriefe accounted for EUR 0.75 bn. Therefore, the outstanding volume of Pfandbriefe increased to EUR 394 bn (EUR 391 bn in 2021). Outstanding Mortgage Pfandbriefe increased from EUR 264 bn to EUR 282 bn and Public Pfandbriefe decreased from EUR 125 bn to EUR 110 bn. The remainder is accounted for Ship Pfandbriefe (EUR 1.9 bn).

GREEN FUNDING

The first ESG (Environmental, Social and Governance) Pfandbrief issued in September 2014 (EUR 300 mn) pioneered a new sustainable covered bond market segment. Since then, German Pfandbrief banks have been very active in both green and social lending and issuing Green and Social Pfandbriefe. Several Pfandbrief banks offer a discount on mortgage loans provided the building is energy efficient and fulfils certain requirements. In 2019, Pfandbrief issuers under the umbrella of the vdp published minimum standards for Green Pfandbriefe. They include requirements for the energy efficiency of financed buildings based on the definition developed within the Energy Efficient Mortgage Initiative of the ECBC. These were complemented in March 2021 by minimum standards for Social Pfandbriefe. Lastly, minimum standards for the issuance of Green Public Pfandbriefe were published in June 2022.

All minimum standards take account of the initiatives under way at the EU regarding the taxonomy for sustainable economic activities and the introduction of the EU Green Bond Standard. Moreover, the minimum standards oblige Pfandbrief banks to provide a high degree of transparency. Issuers are required to establish their own Green or Social Bond Framework which must be based on the ICMA Green or Social Bond Principles.

At the end of 2022 the amount of outstanding Green and Social Pfandbriefe was EUR 18 bn by 12 issuers. Issuance in 2022 came in at a record EUR 9 bn.

	GERMANY 2021	GERMANY 2022	EU 27 2022
MACROECONOMIC VARIABLES			
Real GDP growth (%) (1)	2.6	1.8	3.5
Unemployment Rate (LSF), annual average (%) (1)	3.7	3.1	6.2
HICP inflation (%) (1)	3.2	8.7	9.2
HOUSING MARKET			
Owner occupation rate (%) (1)	49.5	46.7	69.1
Gross Fixed Investment in Housing (annual change)(1)	0.7	-2.1	1.5
Building Permits (2015=100) (2)	121.5	113.0	125.8
House Price Index – country (2015=100) (2)	154.1	168.0	164.6*
House Price Index – aggregate seven largest cities*** (2015=100) (2)	158.2	170.7	163.8*
Nominal house price growth (%) (2)	11.3	9.0	10.6*
MORTGAGE MARKET			
Outstanding Residential Loans (mn EUR) (2)	1,744,433	1,842,773	6,743,197
Outstanding Residential Loans per capita over 18 (EUR) (2)	25,132	26,563	18,433
Outstanding Residential Loans to disposable income ratio (%) (2)	78.7	76.3	71.5
Gross residential lending, annual growth (%) (2)	11.1	-8.7	-6.5
Typical mortgage rate, annual average (%) (2)	1.3	2.3	3.1

* Please note that this value is the simple average of the available values in 2022.

Sources:
(1) Eurostat
(2) European Mortgage Federation – Hypostat 2023, Statistical Tables.

GERMANY FACT TABLE

Which entities can issue mortgage loans in your country?	MFI's and Life Insurers
What is the market share of new mortgage issuances between these entities?	MFI's: 96%, Life Insurers: 4%
Which entities hold what proportion of outstanding mortgage loans in your country?	MFI's: 96%, Life Insurers: 4%
What is the typical LTV ratio on residential mortgage loans in your country?	70-80% (average for purchase of owner occupied residential properties)
How is the distinction made between loans for residential and non-residential purposes in your country?	Type of use (buildings with different types of use: predominant use)
What is/are the most common mortgage product(s) in your country?	Mortgage loans with fixed interest rates for about 10-15 years
What is the typical/ average maturity for a mortgage in your country?	About 25 years
What is/are the most common ways to fund mortgage lending in your country?	Deposits, mortgage covered bonds, other bank bonds
What is the level of costs associated with house purchase in your country (taxes and other transaction costs)?	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.
What is the level (if any) of government subsidies for house purchases in your country?	The acquisition of owner-occupied housing is promoted through various programmes of KfW, Germany's leading promotional bank. Currently, subsidised loans are granted for the following measures in connection with the acquisition of residential property by private households: • KfW Home Ownership Programme (For the purchase or construction of a home) • Promotion of cooperative housing (For the purchase of cooperative shares) • Climate-friendly new construction - residential buildings (For building energy-efficient and sustainable houses and flats) • Home ownership for families (For families with children who build in a climate-friendly way) 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.

Greece

By Calliope Akantziliotou[1], Bank of Greece

IN A NUTSHELL

- → Real GDP[2] grew by 5.9%, against 8.4% in 2021.
- → House prices continued to rise at an accelerated pace; the price of apartments rose by 11.7%, against 7.6% in 2021.
- → In the commercial property segment, prime retail rose by 5.0%, against 2.5% in 2021 and prime offices by 2.6% (1.7% in 2021).
- → The total stock of outstanding housing loans declined by 3.6% in 2022 (-3.0% in 2021), a rate which in March 2023 remained almost unchanged (-3.7%).

MACROECONOMIC OVERVIEW

2022 has been a year of increased uncertainty, due to the war in Ukraine, the sharp rise in inflation, energy price hikes and the disturbances in the supply of goods, energy and technology products. However, following a strong recovery in 2021 (8.4%) – offsetting almost entirely the sharp decline due to the pandemic in 2020 (-9.0%) – economic activity maintained its growth but at a slower pace, with real GDP rising on average by 5.9%, outpacing pre-pandemic levels (+4.0% compared to 2019).

The main drivers of economic growth were private consumption, investment, exports of services and the tourist sector. In particular, growth rates in real terms were 7.8% in private consumption, 11.7% in gross fixed capital formation and 9.9% in exports of services. The decline in government consumption (-1.6%) and the increase in imports (11.2%) weighed on GDP growth. In Q1 2023, GDP (seasonally adjusted) continued to increase by 2.1%, y-o-y, although at a decelerating pace, mainly driven by the growth in exports of goods and services (8.9%), gross fixed capital formation (8.2%) and private consumption (2.9%).

Foreign direct investment inflows increased significantly, reaching a 20-year high. Other factors that had a positive effect in the economy were the strong performance of the tourist sector,[3] employment growth and the financing of investment projects through the NGEU. The fiscal support measures to mitigate the impact of the pandemic and the energy crisis on households and businesses also contributed to the positive performance of the economy.

The economic outlook remains positive, despite continued uncertainty. According to Bank of Greece estimates,[4] real GDP is projected to continue growing in 2023 although at a slower growth rate of approximately 2.2%, due to a slowdown in economic activity in the euro area, affecting export growth and a significant deceleration of private consumption growth. On the other hand, investment and the positive outlook for the tourism sector will continue to make a positive contribution to growth.

Residential investment (ELSTAT, non-seasonally adjusted data at constant prices) accelerated further by 36.1% in 2022 (2021: 27.3% and 19.0% in 2020), whereas investment in total construction, accelerated also for a third consecutive year but at a slower pace compared to residential (2022: 25.7%, 2021: 15.1%, 2020: 4.5%). The difference was mainly due to investment in “other” construction (non-residential construction and civil engineering) which grew by 21.5% in 2022, 10.8% in 2021 and only marginally in 2020 (0.1%).

In 2022, labour market developments remained favourable, and the unemployment rate declined. According to ELSTAT - Labour Force Survey, employment (non-seasonally adjusted data) increased by 5.4% against 1.4% in 2021 (-0.9% in 2020). In particular, employment followed a similar trend to economic activity and improved during the first half of 2022 mainly due to the significant economic growth of H1 2022, whilst in the second half there was a slowdown in its growth rate. The unemployment rate, although declining steadily and significantly in the recent years (12.4% in 2022 against 14.7% in 2021, 16.3% in 2020 and 17.3% in 2019) remains high compared to the European average. Long-term unemployment (12 months and above) decreased to 61.9% of the unemployed compared to 62.6% in 2021 (66.5% in 2020).

Following marginal positive HICP inflation (ELSTAT data) in 2021, stood on average at 0.6%, inflation accelerated significantly in 2022, posting rates that has not been seen since 1995, with average HICP inflation standing at 9.3% mainly due to steep rises in energy prices but also to large increases in food prices. The conflict in Ukraine and pandemic-related supply-chain backlogs and shortages also had an impact on these rising inflationary pressures. Core inflation (inflation excluding food and energy prices) has also increased, albeit to a lesser extent. In particular, inflationary pressures intensified during Q2 and Q3 of 2022 and eased in Q4 2022 and Q1 2023. HICP inflation continued to decelerate during the four months of 2023 (4.5% in April 2023 down from 5.4% in March 2023), mainly due to the significant decline in energy prices, although core inflation retained its upward pressures (during the 4-month period of 2023 stood at 8.2% on average). In 2023, inflation pressures will ease as energy and food prices are expected to moderate.

According to the Bank of Greece data, during the period 2017-2019, foreign direct investment (FDI) rose significantly (2019: EUR 4.5 bn, 2018: EUR 3.4 bn and 2017: EUR 3.1 bn) and the real estate - for property purchasing - contribution was strong, especially in the years 2019 and 2018 (32.3% in 2019 and 33.5% in 2018, against 13.4% in 2017). In 2020, due to the pandemic, FDI reduced (EUR 2.8 bn), however the real estate contribution remained strong (31.1%). In 2021, FDI rebounded and amounted to EUR 5.4 bn, exceeding net capital

[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): non-seasonally adjusted data at constant prices.

[3] Bank of Greece: Border Survey. In 2022, tourism activity almost rebounded compared to 2019 (revenues amounted to EUR 18 bn) at approximately by 97%. Revenues generated by tourism activity increased significantly in 2021 and amounted approximately EUR 11 bn, against EUR 4 bn in 2020 due to the global spread of the disease and the restrictive measures implemented by most countries.

[4] Bank of Greece: Governor's Annual Report 2022/07.04.2023.

inflows levels of 2019, and were mainly directed towards the manufacturing and sectors such as financial intermediation and real estate. In 2022, FDI grew further and amounted to EUR 7.2 bn, mainly directed towards the same sectors as in 2021. In Q1 2023, FDI was EUR 1.0 bn, mainly in real estate.

The government had a primary surplus of 0.1% of GDP, improving from a deficit of 4.7% of GDP in 2021, largely due to economic growth and higher inflation. The general government debt decreased to 171.3% of GDP, down from 194.6% in 2021, due to the denominator effect. According to the 2023 Stability Programme, the general government primary balance is projected to improve further in 2023 at a surplus of 1.1% of GDP and general government debt is expected to drop to 162.6% of GDP on the back of the economic growth, the unwinding of energy measures and increased inflation.

HOUSING MARKETS

Investment in the real estate market exceeded expectations. There was significant growth relative to previous years occurred in both house and commercial property prices (prime office and retail), mostly in prime locations, which stemmed, especially in the residential market, mainly from external investment demand and tourism. However, in the light of the existing international economic uncertainty, the war in Ukraine, persistent inflation and the adverse effects on the costs of borrowing, energy, materials and construction in general, there remain uncertainties that may affect investment interest and growth prospects.

According to the Bank of Greece apartment price index prices continued to grow, for a fifth consecutive year, at an accelerated rate compared to previous years. Based on Bank of Greece residential data (valuations) collected by credit institutions, at a country level, nominal apartment prices increased on average by 11.7%, against 7.6% in 2021 (4.5% in 2020, 7.2% in 2019 and 1.8% in 2018). More specifically, in 2022 there was a gradual acceleration of the annual rate of price increase (10.0%, 10.7%, 12.4% and 13.5% in first, second, third and fourth quarter, respectively). By age distinction, the prices of the new apartments (up to 5 years old) increased at an annual rate of 12.2%, compared to 11.3% for old (over 5 years old) apartments. The highest annual growth rates in apartment prices were in Athens (13.7%) and Thessaloniki (12.5%). More moderate annual growth rates were recorded in other cities and in semi-urban and rural areas (10.6% and 7.9%, respectively). In Q1 2023, an accelerated growth rate was recorded in housing property prices (14.5% y-o-y), mainly driven by the strong growth rates of Athens and Thessaloniki area (16.5% and 16.1%, y-o-y, respectively). By age distinction, the prices of the old apartments increased significantly at an annual rate of 15.6%, compared to new apartments (12.8%, y-o-y).

The positive trend of the housing market in recent years strengthened significantly in 2022, mainly due to strong foreign investor demand, and tourism, which favourably affects houses mostly through short-term leases as well as the positive developments of the Golden Visa Programme.[5] Net foreign direct investment in Greece for real estate property purchases (Bank of Greece data), increased by 68.0% (net amounts: EUR 2.0 bn in 2022 from EUR 1.2 bn in 2021).[6] In Q1 2023, net foreign direct investment in Greek real estate was EUR 497 mn, compared to EUR 374 mn in Q1 2022, recording a 32.9% increase. Housing investment (ELSTAT data, non-seasonally adjusted at constant prices) rose by 36.1% in 2022 (27.3% in 2021), whereas it remains low as a percentage of GDP (1.7% against 1.3% in 2021). In Q1 2023, residential investment grew further (48.4%, y-o-y), accounting for 2.0% of GDP.

Positive expectations in the house construction sector (Foundation for Economic & Industrial Research data) strengthened by 4.0% and continue to improve in the first five months of 2023 (13.8%). However, the positive trend in residential construction halted in 2022, after five consecutive years of strong growth with a decrease in the volume of new building permits (in cubic meters) of 3.2% y-o-y, although remained unchanged in the number of permits. In the Athens area the decreases were higher (-10.0% and -3.2% y-o-y, respectively). In the first two months of 2023, construction activity in dwellings increased nationally, in terms of cubic meters by 6.8%, y-o-y, while in the region of Athens, the increase was slightly higher (19.3%, y-o-y). The cost of construction of new residential buildings (ELSTAT data) for 2022 increased by 8.8% (3.2% in 2021). In Q1 2023, it increased further by 8.1%, y-o-y.

There was a strong rebound in real estate transactions[7] in 2021 (104,746 transactions) by 40.1% against a decrease on average by 22.6% in 2020 (74,769 transactions), mainly due to the pandemic and after five consecutive years of increases. Due to the strong dynamics in Greek real estate market a further enhancement on the number of real estate transactions is expected in 2022.

The outlook remains positive, despite uncertainties surrounding the domestic and the global economy, such as the war in Ukraine and broader geopolitical uncertainty, increased energy and material costs, the rise in lending rates and financing, higher-than-expected inflation, the worsen of the house affordability and other housing costs as well as the continues changes in legislation and taxation.

MORTGAGE MARKETS

The total stock of housing loans outstanding continued to decline, by 3.6% in 2022 (-3.0% in 2021 and -2.7% in 2020) a rate which remained unchanged in March 2023 (-3.7%). In 2022, the average amount of new mortgages, including renovation loans, was EUR 78,812, higher than in 2021 (EUR 73,157) and the average loan-to-value ratio for new mortgage loans stood at 62.9% (63.7% in 2021).[8] The total amount of new housing loans, although still at low levels, increased in 2022 by 20.7%, but at a much slower pace than in 2021 (46.2%). In Q1 2023, the total amount of new housing loans increased slightly by 2.6%, y-o-y, marking a significant slowdown compared to Q1 2022 (69.6%).

Bank interest rates on new and outstanding housing loans increased further up to March 2023 compared with the average rate for 2022. In particular, rates on new housing loans (including charges) in March 2023 were 4.4% against 3.5% on average in 2022 and 3.1% in 2021, whereas the corresponding rate

[5] Permanent residency permit for non-European residents by investing EUR 250 td and above in real estate in Greece. In September 2022, the Greek government announced new adjustments in the Golden Visa Programme, which would increase the investment threshold to EUR 500 for specific areas in Greece as well as any new investment will concern a single property purchase. The decision was issued under the authorization of article 92 of Law 5007/2022 and with effective May 1st, 2023. The effective date postponed to August 1st 2023 under Law 5038/2023.

[6] Real estate remains a significant beneficiary of foreign direct investment, 27.4% of the total for 2022 and 22.0% for 2021, compared to 31.1% for 2020 and to 32.3% for 2019. The main countries of origin for 2022 were Hong Kong, China and United State.

[7] Source: ELSTAT. Annual data collected by notaries throughout the country; including all real estate categories of residential and commercial properties (dwellings, retail, offices, building plots, etc). Latest available data: 2021.

[8] Bank of Greece: Executive Summary of the Financial Stability Review – May 2023.

on outstanding housing loans with an initial maturity of over 5 years stood at 4.3% (2.4% on average in 2022 and 2.0% in 2021). Mortgages with floating rate used to be the most common product, but since 2020, mortgages with a fixed rate have become increasingly popular and in 2022 accounted for 55.6% of new housing loans, against 43.5% in 2021.

According to the latest available data of the Bank Lending Survey for Greece (Q1 2023), credit standards for loans to households remained stable for all categories of loans since a moderate tightening in Q3 2019. The terms and conditions for all types of loans eased somewhat compared to Q4 2022, mainly due to lower non-interest rate charges. The proportion of rejected loan applications to housing loans somewhat increased in both Q3 2022 as well as Q4 2022 and it decreased to a small extent in Q1 2023 compared with the previous quarter. The demand for housing loans weakened for the fourth consecutive quarter, after two years of increasing demand, possibly due to high lending interest rates and reduced consumer confidence although expectations regarding housing market prospects contributed positively. For Q2 2023, banks expect that the credit standards as well as the demand for housing loans to households will remain almost unchanged.

MORTGAGE FUNDING

During the 12-month period (April 2022-March 2023) deposits placed by the private sector increased by EUR 8.4 bn, at a slower pace compared to the corresponding period of the previous two years (from EUR 11.5 bn during April 21 – March 22 and EUR 20 bn the year before). Households' deposits, grew annually by 3.6% in March 2023. During the 12-month period (April 2022-March 2023) deposits placed by households increased by EUR 5.4 bn against an increase amounted to EUR 6.5 bn during the corresponding period of previous year and EUR 11 bn during the corresponding period two years ago. Since October 2021, households and private non-profit institutions deposit growth has been slowing, as the postponed consumer spending, following the easing of most pandemic restrictions, has been already carried out, pandemic-related support measures have been withdrawn and food and energy prices have risen significantly.

The nominal value outstanding of covered bonds issued by Greek banks declined from EUR 10.8 bn in December 2021 to EUR 10.1 bn in December 2022, as redemptions amounted to EUR 700 mn and there were no issuances of such bonds by Greek Banks during this year. In 2022, Greek banks issued unsecured and subordinated bonds, mostly the senior preferred and Tier 2 types. As a consequence, the nominal value outstanding of unsecured and subordinated bonds increased from EUR 6.9 bn at the end of December 2021 to EUR 9.4 bn at the end of December 2022.

Central Bank funding of Greek banks decreased from EUR 50.8 bn in December 2021 to EUR 35.4 bn in December 2022. The reduction stemmed mainly from repayments and redemptions in the context of the third series of targeted longer-term refinancing operations (TLTRO-III).

	GREECE 2021	GREECE 2022	EU 27 2022
MACROECONOMIC VARIABLES			
Real GDP growth (%) (1)	8.4	5.9	3.5
Unemployment Rate (LSF), annual average (%) (1)	14.7	12.5	6.2
HICP inflation (%) (1)	0.6	9.3	9.2
HOUSING MARKET			
Owner occupation rate (%) (1)	73.3	72.8	69.1
Gross Fixed Investment in Housing (annual change)(1)	27.3	36.1	1.5
Building Permits (2015=100) (2)	214.1	212.1	125.8
House Price Index – country (2015=100) (2)	118.5	132.4	164.6*
House Price Index – capital (2015=100) (2)	130.5	148.5	163.8*
Nominal house price growth (%) (2)	7.3	11.7	10.6*
MORTGAGE MARKET			
Outstanding Residential Loans (mn EUR) (2)	30,891	29,753	6,743,197
Outstanding Residential Loans per capita over 18 (EUR) (2)	3,494	3,416	18,433
Outstanding Residential Loans to disposable income ratio (%) (2)	24.3	21.4	71.5
Gross residential lending, annual growth (%) (2)	52.0	24.7	-6.5
Typical mortgage rate, annual average (%) (2)	2.8	3.1	3.1

*Please note that this value is the simple average of the available values in 2022.

Sources:
(1) Eurostat
(2) European Mortgage Federation – Hypostat 2023, Statistical Tables.

GREECE FACT TABLE

Which entities can issue mortgage loans in your country?	All credit institutions authorised in Greece under the Law 4261/2014, Directive 2013/36/EU.
What is the market share of new mortgage issuances between these entities?	Confidential information
Which entities hold what proportion of outstanding mortgage loans in your country?	Confidential information
What is the typical LTV ratio on residential mortgage loans in your country?	According to the Financial Stability Review (May 2023) the LTV ratio for new mortgage loans in 2022 was 62.9%.
How is the distinction made between loans for residential and non-residential purposes in your country?	The distinction is made by the reporting agents themselves.
What is/are the most common mortgage product(s) in your country?	Mortgages with floating rate used to be the most common product. But as of 2020-2022 mortgages with a fixed rate are becoming increasingly popular and in 2022 accounted for 55.6% of new loans.
What is the typical/ average maturity for a mortgage in your country?	Not available
What is/are the most common ways to fund mortgage lending in your country?	Deposits
What is the level of costs associated with house purchase in your country (taxes and other transaction costs)?	**• VAT 24%** From 2006 until today, the legislation provides for the imposition of the standard VAT rate (24%) on newly built properties. An exemption on first residence was also set. From 2019, when the suspension of VAT collection on new buildings was first announced, a new suspension was imposed on 09.12.2022 (L.5000/2022). The suspension of VAT will be applicable until the end of 2024. **• Real Estate Transfer Tax 3%** Any transfer of real estate – not subject to VAT – is subject to a Transfer Tax (3%), which is applied on the higher value between market and zonal value (property price used for tax purposes) of the real estate property. Such cost is further increased by fees such as municipal tax, notarial, land registration and legal fees. The competent bodies of the Ministry of Finance announced on 07.06.2021 (via Government Gazette 2375 Issue B) the new property zone rates for the entire country (i.e new zonal values) with effect on 01 January 2022, therefore, in 2022, all transfer costs should be estimated based on the new taxable rates. **• Capital gains tax 15%** Capital gains tax is 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 of the property. From the imposition (in 2013) until today, there has been a continuous suspension, which (via L.5000/2022) will be applicable until the end of 2024.
What is the level (if any) of government subsidies for house purchases in your country?	According to L. 5006/2022, the government supports the Youth Housing Program "My Home", a EUR 500 mn project, implemented as part of the housing policy of the Ministry of Labor and Social Affairs, and provides low-interest rate housing loans to young people/couples aged 25-39 years old, with a total annual income EUR 10 td up to the amount corresponding, depending on their marital status and to the income criterion defined for receiving a heating allowance by the decision issued under the authorization of paragraph 1 of article 79 of Law 4756/2020. The beneficiaries should not own a residence that can meet their housing needs. The project will allow young people/couples to acquire a residence not exceeding 150 square meters at least 15 years old at the time of its acquisition (as shown by the building permit) and worth up to EUR 200 td The house purchase will be financed with a loan that covers up to 90% of the purchase price and not exceeding EUR 150 td 75% of the loan will be provided by public funds and have a zero interest rate. The loan will have a maturity up to 30 years.

Hungary

By Gyula Nagy, MBH Mortgage Bank Plc

IN A NUTSHELL

→ House price increase peaked in Q2.

→ There was a record growth in mortgage lending volumes in H1, followed by a strong deceleration.

→ Mortgage interest rates increased significantly toward the end of the year.

→ The Green Home Loan Program was a great success, funds were mainly used in Q1.

MACROECONOMIC OVERVIEW

There was strong GDP growth in the first and second quarters (7.2 %), followed by a slowdown in line with international trends.

Gross domestic product increased by 4.6%. From the production approach, value added increased by 5.4% in industry, 3.0% in construction and 7.2% in services, but was 31.2% smaller in agriculture caused by the severe drought experienced in the second part of 2021 and 2022. Services contributed 4.1 pps to the increase in GDP, industry 1.0 pps and construction 0.2 pps, agriculture reduced the GDP growth by -1.0 pps. The volume of exports increased by 10.3% and that of imports by 9.5%.

Average gross earnings per employee was HUF 500,000, a nominal increase of 14% (from HUF 438,800). Unemployment remains low in international comparison at 3.6%.

Inflation has grown significantly from 5.1% in 2021 to 14.5% in 2022. Food and energy prices contributed most, food prices grew by 26%, household energy prices by 21.7 % (the price increases would have been even higher, but subsidies freeze prices up to a given consumption limit). For durable consumer goods, the increase was 12.2 %. For certain products (e.g., basic foodstuff, motor fuel prices, etc.) price caps were introduced, although the cap on motor fuel was lifted towards the end of the year. Inflation accelerated toward the end of the year to 24.5 % in December.

The general government deficit was HUF 4.159 bn, 6.2% of GDP based on preliminary data, total, public debt was HUF 48.8 bn, 73.3% of GDP, at year end.

LOOKING AHEAD

The decrease in new mortgage loans in the second part of 2022 is expected to continue. The decrease in 2022 was mostly due to the rising interest rate environment, but also to the slowing GDP growth. In Q4 new mortgage loans declined by 54% on a y-o-y basis, from 44% in Q3. In addition, rates of decline are distorted by the high base resulting from the launch of FGS Green Home Programme at the beginning of the year.

As long as high interest rates persist on mortgages, government sponsored loan subsidy programmes maintain their importance. In December, the government decided to prolong certain family support programmes, that originally were expiring at the end of 2022. Accordingly, the prenatal baby support loan , the HPS (Home Purchase Subsidy) and the rural HPS loan programmes will remain in place until the end of 2023. From 2024 the conditions of the prenatal baby support loan (HPS) will change, the HPS loan will not be available anymore in bigger cities. The so-called "home improvement and modernisation loan program" ended in December 2022, while the funds allocated to the FGS Green Home Programme run out in the second quarter of 2022.

HOUSING MARKETS

Hungary had a population of 9.6 mn people and a stock of 4.5 mn housing units at year end. The homeownership ratio was over 91%, one of the highest in the EU.

In the first half of the year, due to the favourable macroeconomic environment, house prices reached the peak of a multi-year cycle with an almost 25% increase on a y-o-y basis. However, in the second half of the year the economy slowed significantly, a trend that has continued well into 2023. Toward the end of the year, inflation in Hungary accelerated, leading to a decline in disposable real income for households, leading to lower demand for housing.

The number of building permits granted was 35,002 up 17% compared to 2021 (29,941) due to improving investment sentiment (mostly in the first part of the year) and the reinstatement of the preferential VAT rate (5% instead of 27%) for new residential projects started with a valid building permit by the end of 2022. The number of housing units completed was 20,540, a 3% increase compared to 2021 (19,898). However, this figure is only 73% of the level of 2020 (28,158)

In Budapest, 13,399 new permits were issued versus 5,491 in 2021. The number of finished dwellings was 6,610 versus 7,038, so while the number of new permits increased strongly, the number of completions decreased slightly.

In the new housing segment, the housing subsidies available in 2022 stimulated market activity, while the Green Home Programme of the National Bank of Hungary encouraged developers to build environmentally sustainable new residential properties.

Demand and supply, linked to the economic reopening following the pandemic, led to sharp rises in construction material prices and shortages of materials globally. Additionally, the shortage of skilled manpower and construction material in the construction sector also represented an obstacle to achieve better results in terms of house completions in 2022, an aspect that helps explain the contradictory market movements (that is, high growth in permissions and relatively modest growth in the number of finished residential projects and housing completions).

According to the reviewed MBH House price Index (formerly Takarék House price Index), house prices in 2022 were 21.5% higher than in the previous year. The house price growth in the bigger cities was led by Szeged by 30% growth. In Debrecen house prices on average have grown by 26 %, while the growth in Budapest was more in line with the country average (20,7 %). According to the figures reported in the House Market Report of the National Bank of Hungary, the number of housing transactions was 142,000 during the year.

MORTGAGE MARKETS

Mortgage loan disbursement reached a record level in Q2. This exceptional growth was a result of the subsidised home purchase loans, the expectation of interest rate hikes and a rise in loan amounts due to rising house prices. Gross lending grew strongly in H1, but due to the strong deceleration in the second part of the year, the yearly growth was only 1.4%.

The outstanding residential loan portfolio to households expanded by 5.2%.

Despite the growth in housing loans in 2021 and the first half of 2022, the mortgage debt-to-GDP ratio at 9.2% is still among the lowest in the EU. Household loan-to-GDP ratio amounted to 13.9%at the end of Q3 2022. After Romania, Hungary has the second lowest household debt ratio in the EU, there is still room for increased domestic loan penetration. In the third quarter, the average household loan-to-GDP ratio of the "Visegrad" countries amounted to 31%, while the average for the euro area was 50%.

With inflation accelerating in the second half of the year, the average interest rate for housing loans increased significantly. For non-state subsidised loans originated in Q4 the rate for loans fixed up to 5 years was 8.1% and 8.6% for 5 to10 years fixation. However, the vast majority of housing loans have rates fixed for 10 years or until maturity; the average rate on these loans rose to 9.2%. Mortgage loans with variable interest rate were only 1% of total mortgage issuance in 2022.

To mitigate the effects of rising rates, the government introduced interest rate caps on certain types of existing mortgage contracts (variable and 1 to 5 years fixed rate mortgages), with rates frozen at their earlier rate, before the rate hikes. Despite recent rises in house prices, the median LTV ratio of newly disbursed mortgage loans has not increased. In the case of housing loans contracted in 2022, the median loan-to-value ratio was below 50%.

NPLs increased after the end of the pandemic moratoria to 4.2% (from 3.7%).

MORTGAGE FUNDING

Most mortgage loans are deposit-funded, but covered bonds are also commonly used. Act XXX. on Mortgage Banks and Mortgage Bonds, approved by Parliament in 1997, contributed significantly to the establishment of the covered bond market.

In April 2017, as a result of a new regulation, the Mortgage Funding Adequacy Ratio (MFAR) was introduced by the National Bank of Hungary (MNB). According to which commercial banks were obliged to refinance at first 15% of their outstanding long-term mortgage loan portfolio with long term securities. The ratio was then increased to 20% in October 2018 and later changed to 25% as of 1st October 2019. A further increase of the ratio was planned for 2022, but the increase to 30% was extended to a later date with no definite deadline.

Covered bonds issued by Hungarian credit institutions comply with the European Covered Bond and the European Covered Bond Premium criteria.

GREEN FUNDING

In July 2021, the preferential treatment of green funds in the MFAR came into force, which contributed to the first domestic green mortgage bonds.

With the start of the MNB's Green Mortgage Bond Purchase Programme, green mortgage bond issuances started in the summer of 2021 and by June 2022 all five mortgage banks were present in the market, with a total of HUF 156 bn of green mortgage bonds issued. This was 9% of the total outstanding mortgage bond stock. As green loan portfolios increase, the share of green bonds is expected to increase.

Another programme of the National Bank of Hungary, called the Green Home Programme (GHP) was targeted at households and individuals buying or building energy-efficient new homes. The program was launched in October 2021, the homes subject to the programme had to have an energy efficiency rating of at least BB and a maximum primary energy consumption of 90 kWh/m^2/year. Later, in 2022, the energy consumption of eligible dwellings was restricted to 80 kWH/m^2/year). Due to the rapidly rising interest rates, the maximum 2.5% interest rate applicable on this type of loan was a great motivation for buyers to apply for this loan facility. The programme was a great success, but the allocated funds (HUF 300 bn) were running out at the end of Q1 2022.

In 2021, in order to encourage green lending in Hungary, the MNB published the Green Preferential Capital Requirement Programme for Housing (also available for Corporates and Municipalities). In the Programme, capital relief is available for mortgage loans and personal loans – qualifying as energy-efficient – concluded by Hungarian credit institutions with consumers for the purpose of purchasing, building or modernising residential buildings.

	HUNGARY 2021	HUNGARY 2022	EU 27 2022
MACROECONOMIC VARIABLES			
Real GDP growth (%) (1)	7.2	4.6	3.5
Unemployment Rate (LSF). annual average (%) (1)	4.1	3.6	6.2
HICP inflation (%) (1)	5.2	15.3	9.2
HOUSING MARKET			
Owner occupation rate (%) (1)	91.7	90.1	69.1
Gross Fixed Investment in Housing (annual change)(1)	-10.4	12.3	1.5
Building Permits (2015=100) (2)	239.2	279.7	125.8
House Price Index – country (2015=100) (2)	234.8	285.4	164.6*
House Price Index – capital (2015=100) (2)	240.6	290.6	163.8*
Nominal house price growth (%) (2)	11.9	21.5	10.6*
MORTGAGE MARKET			
Outstanding Residential Loans (mn EUR) (2)	14,660	14,204	6,743,197
Outstanding Residential Loans per capita over 18 (EUR) (2)	1,827	1,780	18,433
Outstanding Residential Loans to disposable income ratio (%) (2)	16.3	14.6	71.5
Gross residential lending, annual growth (%) (2) (3)	23.9	-7.1	-6.5
Typical mortgage rate. annual average (%) (2)	4.4	7.4	3.1

* Please note that this value is the simple average of the available values in 2022.

Sources:
(1) Eurostat
(2) European Mortgage Federation – Hypostat 2023, Statistical Tables
(3) Considering values in EUR

HUNGARY FACT TABLE

Which entities can issue mortgage loans in your country?	Banks, specialised mortgage banks, savings cooperatives, home savings banks, financial companies (mortgage houses) can issue mortgage loans in Hungary.
What is the market share of new mortgage issuances between these entities?	In proportion to the total volume commercial banks issued 58.7% mortgage banks 30.3%, home savings cooperatives 11.3% of the new mortgage issuances.
Which entities hold what proportion of outstanding mortgage loans in your country?	Commercial banks hold 59.1%, mortgage banks 31.8%, home saving cooperatives 9.1% of the total outstanding mortgage loan portfolio.
What is the typical LTV ratio on residential mortgage loans in your country?	The typical LTV ratio of the newly disbursed residential mortgage loans is around 60%. (median LTV value was below 50 %)
How is the distinction made between loans for residential and non-residential purposes in your country?	In the residential loan portfolio, by "housing loans" it is understood that the purpose of said 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.
What is/are the most common mortgage product(s) in your country?	The most typical mortgage product is the housing loan granted by commercial banks and mortgage banks (when the purpose is the purchase of a flat or house).
What is the typical/average maturity for a mortgage in your country?	Average maturity for a mortgage loan was 17,1 years in 2022.
What is/are the most common ways to fund mortgage lending in your country?	The most common way to fund mortgage lending is funding from deposits, but covered bonds are also used for mortgage loan funding. 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. The ratio is called Mortgage Funding Adequacy Ratio (MFAR) and was initially set at 15%. From October 2019 the ratio increased to 25% and remained at this level also in 2022.
What is the level of costs associated with house purchase in your country (taxes and other transaction costs)?	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 2 % until 4 Mio HUF than 4% up to HUF 1 bn (EUR 2.9 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 3-5% is generally paid by the seller. Buying a newly built flat is subject to a preferential VAT payment of 5% (instead of the 27 % VAT applied on most consumer prices and services). The easing of the preferential VAT payment was extended until end 2022.
What is the level (if any) of government subsidies for house purchases in your country?	A new Green Home Programme (GHP) was launched in October 2021 by the National Bank of Hungary (NBH) with the purpose of supporting the construction of energy-efficient new homes (energy-efficiency rating of at least BB and a maximum primary energy consumption of 90 kWh/m²/year). The central bank provided refinancing funds to credit institutions at 0% interest, which they could lend on to retail customers at a maximum interest rate of 2.5% fixed for a max maturity period of 25 years. The programme was a great success and the allocated funds were running out at the end of Q1 2022. The program was extended with more strict conditions in 2022 (max energy consumption of 80 KWH/m2/year),but the funds were also fully allocated during the second quarter in 2022. A significant part of the new housing subsidies are connected to the Home Purchase Subsidy (CSOK in Hungarian) for Families. The affordability of house purchase on credit is significantly improved by the programmes aimed at first-time homebuyers, primarily for families with children purchasing a new home. 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 are available. 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. Apart from the CSOK, programs the "Prenatal Baby Support" program (unsecured interest free loan facility up to HUF 10 mn) also helped to stimulate the house purchase possibilities for families and first time buyers. For home renovations, the Home Improvement Subsidy program was quite successful in 2022 (HUF 3 mn interest free and HUF 3 mn with subsidised interest. According to the National Bank, about 40 % of the loans were used for energy efficient refurbishment purpose. This program ended in December 2022.

Ireland

By Niall Faherty, Banking & Payments Federation Ireland

IN A NUTSHELL

- → The economy continued to grow despite sharp increases in costs to businesses and consumers.
- → Housing demand remained strong but housing supply remains below levels required.
- → Housing supply is growing with a greater focus on apartments.
- → House sales and rental prices continue to rise due to the mismatch between supply and demand.
- → Mortgage lending grew during 2022 driven by lending to first-time buyers (FTBs) and by mortgage switching.

MACROECONOMIC OVERVIEW

The economy continued to grow despite cost pressures on consumers and businesses. Growth was mostly in sectors dominated by multinational corporations. Tax revenues and employment levels grew strongly despite sharp increases in consumer prices, business costs and tightening of ECB monetary policy.

Gross domestic product grew by 12% in volume terms in 2022 (according to preliminary figures from the Central Statistics Office), driven by growth in sectors dominated by multinationals such as manufacturing and information and communication. Compared to 2019, a pre-covid year, GDP has increased by 35.1% and by 25.7% in GNP terms.

Modified final domestic demand, which excludes globalisation effects such as trade in intellectual property and aircraft leasing, rose by 8.2% in 2022, compared with 2021. Consumer spending rose by 6.6% year on year in 2022.

Consumer price inflation, as measured by the harmonised indices of consumer prices (HICP) according to Eurostat, was 8.1% in 2022, with a 41.2% increase in prices for energy products. Despite increases in business costs, the unemployment rate fell from 4.9% in Q4 2021 to 4.2% in Q4 2022.

To alleviate inflationary pressures to businesses and consumers, the government allocated EUR 12 bn (4.5% of national income) in direct relief. Electricity credits accounted for around half of the overall fiscal response, with tax measures accounting for one-third; the remainder is composed of business and other expenditure support.

HOUSING MARKET

The housing and mortgage markets performed well in 2022; the first full year of full residential construction activity since the pandemic. Demand for housing remained strong, evident through continued increases in residential property prices and rent prices.

The shortage of supply of new homes remained the key issue. There were less than 27,000 housing starts in 2022, a 12.3% decrease on the previous year.

New housing completions recovered from low levels in the previous year to 29,882, an increase of 45.1%, according to the Central Statistics Office (CSO). More than 9,100 new dwellings were completed in Q4, 31.4% more than in the same quarter in 2021 and the highest quarterly volume since the CSO started reporting quarterly completions in 2011.

Nationwide, the number of apartments completed increased by 78.7% to 9,166, accounting for 30.7% – the highest level recorded based on data available from 1994. Dublin accounted for about 34.7% of completions in 2022 and 75.4% of apartment completions. Munster and the Dublin Commuter region (Louth, Meath, Kildare and Wicklow) accounted for 20.3% and 22.9% of completions, respectively.

With housing demand continuing to outstrip supply, CSO annual data shows that residential property prices rose for the tenth successive year, but the rate of house price inflation decelerated to 7.8% from a peak of 15.1% in March. Residential property prices in Dublin rose by 6% while those outside Dublin rose by 9.3%. The CSO's national index rose to 169, the highest level since the historical data series began in 2005.

Household market purchases of residential property rose by 2.4% year on year to 14,410 in Q4. On an annual basis, there were 50,025 purchases, the highest level since the data series began in 2010. Dublin was the largest housing market with more than 14,600 household market purchases, 10.2% more than in 2021 giving it a 29% share of the national market.

The fastest growing housing market in 2022 was the Dublin Commuter region, with household market purchases up by 13.6% year on year to 9,002. Within that, the number of apartment purchases exceeded 1,000 for the first time. The region also accounted for 37% of household purchases of new houses. In all other regions, existing properties accounted for between 80% and 90% of household property purchases in 2022.

Non-household buyers (such as companies, housing charities and government) accounted for 21.3% of market purchases of residential properties, an increase 15.1% compared to 2021. Conversely, household investment in property (not for occupation) accounted for 13.1% of household market purchases, down from 14.3% in 2021.

With housing in short supply, rents also increased significantly in 2022. The national standardised rent level (based on new tenancies) rose by 7.6% y-o-y as of Q4 2022 to EUR 1,507, according to the Residential Tenancies Board (RTB). As of Q4 2022, 88 of the country's 166 local electoral areas were designated as rent pressure zones by the government – areas where rents are highest and rising quickly. In these areas, rents cannot be increased by more than general inflation or 2% a year, whichever is lower.

MORTGAGE MARKET

MARKET DYNAMICS

Mortgage drawdown activity grew strongly, rising by 21% in volume terms to 52,634 and in value terms by 34% to EUR 14.1 bn, the highest levels since 2008. There were 58,276 mortgage approvals with a total value of EUR 15.6 bn, up 9% and 16% in volume and value terms, respectively. These are the highest levels recorded since the data series began in 2011.

There was a significant increase in switching activity in 2022 which accounted for nearly 28% of all drawdowns compared to 14% in 2021 in volume terms. This was mainly due to expected interest rate increases by the European Central Bank. At a segment level, first-time buyer (FTB) volumes reached their highest level since 2007 at 25,196, 10% higher than the previous year. Most of the growth was driven by switching activity with re-mortgage/switching mortgage volumes up 108% year on year to more than 13,400.

Total residential and commercial mortgage debt outstanding to banks, including those that have been securitised, shrank to EUR 83.1 bn at year end from about EUR 86.9 bn a year earlier, according to the Central Bank of Ireland (CBI).

When non-banks are included, the value of mortgage debt outstanding increased from EUR 111.1 bn to EUR 112.1 bn, while the number of accounts dropped by 3% to about 790,000. Buy-to-let mortgages accounted for 9.7% of the number and 10.2% of the value of mortgages outstanding.

Some 25.9% housing loans was on tracker rates linked to the ECB base rate by year end, half the volume in Q2 2020. The share of outstanding mortgages on rates fixed for over one year increased from 44.1% at the end of 2021 to 58.6%. Some 89% of the value of new mortgage loan agreements were on fixed rates of greater than one year.

Only 4.1% mortgage accounts for private dwelling home (PDH) were in arrears of more than 90 days by the end of 2022, the lowest proportion since Q1 2010. Some 10.6% of buy-to-let (BTL) mortgage accounts were in arrears of more than 90 days, the lowest level since the data series began in Q3 2012.

Mortgage lenders actively assist borrowers who experience repayment difficulties, which is demonstrated by the fact that 8.4% of all PDH accounts and 9.0% of all BTL accounts had an active restructure by the end of 2022 and about 82% of restructured accounts were not in arrears.

NON-MARKET INTERVENTIONS

The CBI launched a comprehensive framework review of lending limits in 2021 which was completed in late 2022. The CBI maintained its loan-to-value (LTV) for FTBs at 90% but increased the limit to 90% for second and subsequent buyers and maintained the 70% limit for buy-to-let borrowers. Loan-to-income increased from 3.5 to 4 for FTBs and maintained the 3.5 limit for second and subsequent borrowers.

Several changes have been made to the criteria required for a borrower to be considered a FTB for the purposes of the mortgage measures: borrowers who are divorced or separated or have undergone bankruptcy or insolvency may be considered FTBs for the mortgage measures (where they no longer have an interest in their previous property).

FTBs who get a top-up loan or re-mortgage with an increase in the principal may be considered FTBs, provided the property remains their primary home. The CBI permits lenders to provide a portion of borrowers with loans that have LTIs and LTVs higher than the limits in line with their own credit policies. Recognising the operation challenge of managing these allowances during the Covid-19 pandemic, the CBI introduced a system to enable lenders to carry over any unused allowance for use in the first half of 2022, where those loans were approved in 2021.

CBI research indicates that the average LTV for FTBs fell from 80.8% in H1 2021 to 80.1% in H1 2022, while the average LTI increased from 3.1 to 3.2. For second and subsequent buyers (SSB), who are mostly home movers and exclude buy-to-lets, the average LTV fell to 65.5% from 66.7%, while the average LTI increased from 2.6 to 2.7.

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 or building, with claimants accessing up to EUR 30,000 or 10% (up to EUR 30,000) of the purchase value. The scheme was further extended to the end of 2024. By the end of 2022, 37,245 claims had been approved and the total value of approved claims (since July 2016) reached 740.8 mn.

In 2021, the CBI confirmed that retail banks would be able to participate in the government's planned shared equity scheme, which launched in 2022. The First Home Scheme is a shared equity scheme, where the State and participating banks pay up to 30% of the cost of new homes in return for a stake in the home. Homeowners can buy back the stake at any time, but it is not mandatory. As of Q4 2022, 750 buyers had been approved by the scheme and had received eligibility certificates to purchase their homes.

MORTGAGE FUNDING

Banks in Ireland rely mainly on retail funding sources (household and corporate deposits) for mortgage lending. The surge in deposits during the Covid-19 pandemic resulted in a sharp drop in the average loan-to-deposit ratio, which fell from 111.9 in Q4 2019 to 89.8 in Q4 2021. As the economy re-opened, the average loan-to-deposit ratio has increased to 97.0 in Q3 2022 according to the European Central Bank's ESRB Risk Dashboard.

Domestic private sector deposits (mainly from households and non-financial corporations) rose by 7.3% year on year to EUR 307 bn at the end of 2022, some 48% of which were household deposits. Private sector deposits represented almost 50% of total liabilities for credit institutions with a domestic market focus.

Mortgage covered bonds outstanding in Ireland fell from EUR 16.8 bn in 2020 to EUR 14.4 bn in 2021.

Mortgage Limits	Borrower Type	From 01/01/23	Allowance
LTV Limits	**Primary dwelling homes**	FTBs: 90%	15% of new lending to FTBs allowed above 90%
	Primary dwelling homes	Non-FTBs: 80%	15% of non-FTB new lending allowed above 80%
	Buy-to-lets (BTLs)/ Investors	70%	10% of BTL lending
LTI Limits	**Primary dwelling homes**	FTBs: 4 times income SSB: 3.5 times income	15% 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*

GREEN FUNDING

Some banks in Ireland 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 vary depending on the bank.

	IRELAND 2021	IRELAND 2022	EU 27 2022
MACROECONOMIC VARIABLES			
Real GDP growth (%) (1)	13.6	12.0	3.5
Unemployment Rate (LSF). annual average (%) (1)	6.2	4.5	6.2
HICP inflation (%) (1)	2.4	8.1	9.2
HOUSING MARKET			
Owner occupation rate (%) (1)	70.0	70.4	69.1
Gross Fixed Investment in Housing (annual change)(1)	2.2	28.2	1.5
Building Permits (2015=100) (2)	329.6	262.0	125.8
House Price Index – country (2015=100) (2)	146.0	164.0	164.6*
House Price Index – capital (2015=100) (2)	133.3	147.0	163.8*
Nominal house price growth (%) (2)	8.2	12.3	10.6*
MORTGAGE MARKET			
Outstanding Residential Loans (mn EUR) (2)	79,634	78,130	6,743,197
Outstanding Residential Loans per capita over 18 (EUR) (2)	20,893	20,215	18,433
Outstanding Residential Loans to disposable income ratio (%) (2)	61.6	55.1	71.5
Gross residential lending. annual growth (%) (2)	25.1	34.3	-6.5
Typical mortgage rate. annual average (%) (2)	2.7	2.7	3.1

* Please note that this value is the simple average of the available values in 2022.

Sources:
(1) Eurostat
(2) European Mortgage Federation – Hypostat 2023, Statistical Tables.

IRELAND FACT TABLE

Which entities can issue mortgage loans in your country?	Credit institutions (mainly banks) as well as non-bank retail credit firms/home reversion firms.
What is the market share of new mortgage issuances between these entities?	The market shares of different entity types are not published for competition reasons.
Which entities hold what proportion of outstanding mortgage loans in your country?	Non-banks accounted for 17.7% of the number and 22.5% of the value of residential mortgages outstanding at the end of 2022, according to the Central Bank of Ireland. They held 16.2% and 32.3% of the number of principal dwelling home (PDH) and buy-to-let (BTL) mortgages outstanding, respectively, at the end of 2022. Non-banks include retail credit firms, which are non-deposit taking regulated lenders, and credit servicing firms.
What is the typical LTV ratio on residential mortgage loans in your country?	The mean average LTV ratio for first-time buyer mortgages in Ireland was 80.1% in H1 2022 according to the Central Bank of Ireland, up from 80.8% in H1 2021. The average LTV for subsequent private dwelling home (PDH) buyers was much lower at 65.5% in H1 2022, down from 66.7% a year earlier. The average BTL LTV fell to 59.8% in H1 2022 from 60.1% in H1 2020. Note: These figures exclude the 15% of loans that were exempt from the Central Bank of Ireland's macroprudential regulations in H1 2022, including switcher loans (with no additional lending) and loans in negative equity.
How is the distinction made between loans for residential and non-residential purposes in your country?	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.
What is/are the most common mortgage product(s) in your country?	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 five years. In 2022, some 89.2% of the value of new mortgage agreements were on initial fixed rates over one year. By the end of 2022, some 25.9% 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 (15.4%) and greater than one year fixed rates (58.7%).
What is the typical/ average maturity for a mortgage in your country?	For first-time buyers the mean term for a mortgage is about 29 years. For second-time home buyers it is about 24 years.
What is/are the most common ways to fund mortgage lending in your country?	Retail deposits are the main source of funding for mortgage lending, but covered bonds and residential mortgage-backed securities are also important.
What is the level of costs associated with house purchase in your country (taxes and other transaction costs)?	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.
What is the level (if any) of government subsidies for house purchases in your country?	Eligible FTBs can receive tax refunds for purchases of new properties under the Help to Buy scheme. By the end of 2022, 37,245 claims had been approved and the total value of approved claims (since July 2016) reached EUR 740.8 mn. In 2021, the CBI confirmed that retail banks would be able to participate in the government's planned shared equity scheme, which launched in 2022. The First Home Scheme is a shared equity scheme, where the State and participating banks pay up to 30% of the cost of new homes in return for a stake in the home. Homeowners can buy back the stake at any time, but it is not mandatory. As of Q4 2022, 750 buyers had been approved by the scheme and had received eligibility certificates to purchase their homes.

Italy

By Marco Marino, Italian Banking Association – ABI

IN A NUTSHELL

→ GDP rose by 3.7%; the recovery was strongest in tourism, leisure, transport services and construction.

→ Inflation and the increase in key interest rates have negatively affected mortgage and housing demand.

→ The First Home Loan Guarantee Fund to supports credit access for the first house purchase has been reinforced.

→ Several fiscal bonus measures continue to be in force for people who want to renovate their home.

→ EPCs increased about 20% in 2021 (last data available) compared to the previous year.

MACROECONOMIC OVERVIEW

After the big recovery in 2021, GDP rose by 3.7%, despite slowing in the second half of the year due to global tensions: the uncertainty stemming from the conflict in Ukraine, the increases in energy commodities prices and monetary policy.

According to the Bank of Italy's annual report, GDP growth was driven, in particular, by the lifting of Covid-19 measures. In particular, the recovery was strong in tourism, leisure, transport services, and construction sector which was supported by tax incentives to upgrade the building stock (see below).
The economic recovery has reflected positively in the exports of services. Household consumption increased, boosted by consumer credit and by savings accumulated during the pandemic. Manufacturing stagnated and stayed, on average, at 2019 levels.

Household disposable income increased, but its real value was eroded by high inflation which increased by 8.7% (and exceeded 12% in the last quarter) driven by the increase in energy prices.

Bank loans to resident customers rose by 2%, in line with the previous year. After an increase in the first part of the year, the growth rate decreased in the second half in line with the increase in interest rates decided by the ECB which was reflected in a weaking of demand. Employment grew strongly returning to the pre-pandemic levels (the number of employees increased by 1.7% on average and hours worked per employee by 2.2%). The unemployment rate fell to 8.1% (the lowest in the last ten years).

The ratio of general government net borrowing to GDP decreased to 8% (from 9%) and the debt-to-GDP ratio fell to 144.4% (more than -5% y-o-y).

LOOKING AHEAD

Forecasts suggest an increase of GDP of around 1% in 2023[1].
High inflation and the increase in key interest rates have negatively influenced the mortgage and housing demand in 2022. According to the Italian Housing Market Survey of the Bank of Italy (conducted between 3 April and 4 May 2023), the expected trend in consumer price inflation over the next twelve months – for the vast majority of agents – will continue to negatively affect housing demand.

HOUSING MARKETS

The housing market grew, but the trend was less pronounced compared to the previous year.

It recorded more than 784,000[2] transactions (+4.7% y-o-y) and about EUR 123 bn in terms of estimated value, continuing the positive trend since 2014, interrupted only by 2020 (-7.7%) due to the pandemic. According to the Bank of Italy estimated, household wealth in terms of real assets (mainly houses) increased by 1.6% in nominal terms.

The increase in the volume of house sales was greater in the South (+7%) and on the Islands, around +9%. Lombardy is the region with the highest number of transactions (more than 165,000), Umbria had the greatest rise y-o-y (+14.2%) with over 11,000 transactions, followed by Basilicata (+12.6%) and Molise (+10.7%).

The increase was more significant in provincial capital cities (+5.5%) than in smaller cities (+4.3%). In the eight major cities, Palermo had the highest growth in house sales (11.3%), followed by Milan (+6.1%) and Turin (+5.9%). Rome and Milan have the highest number of transactions (Rome over 40,000, 33% of the annual total, and Milan over 28,500,23.6%).

According to preliminary estimates of the Italian National Institute of Statistics (ISTAT), the Housing Price Index increased by 3.8% y-o-y. This increase was due to both, the prices of new dwellings, which grew by 6.1% and existing dwellings which increased by 3.4%.
In the eight largest cities, prices in Milan (per m^2) increased most (+8.3%, the sixth consecutive increase since 2017), followed by Turin (+2.9%) and Rome (+1.5%). In Naples, prices decreased by 1.3% y-o-y.

MORTGAGE MARKETS

MARKET DYNAMICS

The mortgage market slowed, due to weaker demand affected by the increase in key interest rates and the decline in consumer confidence. Outstanding loans reached EUR 426.9 bn at the end of 2022 (+4.1%[3]) while new loans (EUR 69 bn) decreased y-o-y (-12%).

[1] Banca d'Italia, Rapporto annuale, 31 maggio 2023.
[2] Agenzia delle Entrate, Rapporto immobiliare 2023.
[3] The variation is calculated on the basis of raw balance sheet data, therefore it's not adjusted to take account of securitizations.

Loans for house purchase continue to represent the most important liability for Italian households (over 60%). At the end of the year, in general, household financial debts amounted to 62.5% of disposable income, around -2% with respect to the previous year and more than 30 pps lower than in the Euro area. Housing transactions with mortgages remained stable at about 364,000 units (-0.6% with respect to 2021). Considering house purchased with mortgages, they slowed to about 48.4% of the total, with respect to the previous year (51.1%). In 2022, mortgages for young people's first home reached almost 40% of new loans, the highest share since 2007; this category can benefit from the public guarantee for the purchase of their first home (see non-market initiatives)

The average mortgage amount increased to about EUR 138,000 (up EUR 2,800 y-o-y): the largest average amount was in the Central area, with an average of EUR 151,000 (almost EUR 171,000 in the major cities). The average maturity increased slightly to 24.8 years (from 23.9 years in 2021) and is similar in all areas. After falling for several years, the cost of new loans to households for house purchase increased, reflecting higher interest rates on both variable-rate and fixed-rate mortgages. In particular, at the end of the year, interest rates on short term loans were 2.8% (from 1.3% last year) and those with a maturity over 1 year at 3.6% (from 1.4%).

In the second half of the year, the increase in interest rates prompted households to prefer mortgages at variable rate. In the first quarter of 2023, considering the decreasing of the differential cost between the two types of contracts, fixed-rate mortgages started to increase again.

Considering the factors which influence the possibility of house purchase (e.g., disposable income, house price, interest mortgage rates), in the last months of 2022 and in the first months' of 2023 affordability slightly decreased.

NON-MARKET LED INITIATIVES

Some special measures introduced during the pandemic to help first home buyers have been extended by the Italian Budget Law 2023, in particular the Solidarity Fund for mortgages for the purchase of the first house, the First Home Loan Guarantee Fund, and special tax benefits.

The Solidarity 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 (e.g., suspension/reduction/termination of employment). The new law extended until 31 December 2023, including some extraordinary provisions concerning the operation and the eligibility criteria.

The First Home Loan Guarantee Fund supports credit access for the first house purchase. The public guarantee covers 50% of the total amount of the financing (regardless of family composition or age). Banks are independent in their decision to finance applicants, relying on creditworthiness assessment. The Budget Law extended the increase of the amount guaranteed by the Fund from 50% to 80% from 31 December 2022 until 31 March 2023 for specific categories of beneficiaries – including for example people under the age of 36 – if specific conditions are met. Recently, this measure has been extended again until 30 June 2023.

The same law introduced a measure relating to the mortgages renegotiation, allowing borrowers to switch from a variable to a specific fixed rate, if certain conditions are met (among these, a variable rate mortgage of less than EUR 200,000, an ISEE[4] not exceeding EUR 35,000 and no delay in payment).

Moreover, people under 36 can benefit until 31 December 2023 from specific tax relief for their first homes, in order to promote housing autonomy. These consist of an exemption from registration, mortgage and land registry taxes for houses purchases not subject to VAT; for the others subject to VAT, it is provided in addition a tax credit equal to the VAT paid to the seller.

ANY FURTHER IMPORTANT EVOLUTION

The improvement of the energy performance of buildings is of increasing importance in the EU, to meet the climate targets and the zero-emission building stock by 2050. In Italy, the analysis of the energy performance certificates of buildings shows that, overall, in 2021 (last data available) more than 1,2 million of EPCs were issued[5], an increase of around 20% compared to the previous year.
For residential buildings (more than 947,000 issuances) the highest share of EPC is in the F and G classes (59.7%), followed by C and D classes (26.1%).
However, the comparison between 2020 and 2021 shows a reduction of the share of residential properties in the F class by about 1%, especially in favor of those A4-B.

MORTGAGE FUNDING

The banking sector's overall funding contracted.
Resident customers' deposits and bonds contracted by 0.4% (from +5.6% in 2021). Deposits (current accounts, certificates of deposit, repurchase agreements) decreased by 0.5% (+6.9% in 2021), while funding by bonds remained stable (-4.4% in 2021). A total of approximately EUR 20.7 bn of covered bonds were issued. The total level of outstanding was approximately EUR 165.9 bn. Approximately EUR 1.6 bn of securitisations were placed (4.5 bn in 2021).Liabilities vis-à-vis the Eurosystem decreased in conjunction with the repayments of TLTRO-III funds.

GREEN FUNDING

Several fiscal bonues help people renovate their home; in particular concerning the improvements in the energy efficiency of buildings are the following:

- the "Ecobonus" which provides for a deduction of 50% or 65% of the expenses incurred for specific energy efficiency works (e.g., redevelopment of the building, solar collectors, windows) with a cap which differs based on the type works. If the work covers common areas in condominiums, the deduction varies from 70% to 75% depending on specific characteristics. The measure has been extended until the end of 2024;
- the "Superbonus" consists of an income tax deduction for works improving energy efficiency and seismic security of the houses (including installing photovoltaic cells and electric vehicle charging columns), if specific requirements are met. The measure was introduced in 2020 during the Covid-19 pandemic providing a tax deduction equal originally to 110% for the expenses incurred from 1 July 2020 to 31 December 2021. Subsequent laws have extended the measure until 2024 and 2025 with some changes, in particular providing a different value of tax credit (from 110% to 65%) in relation to the year where the expense is occurred, the kind of works and beneficiaries.

4 The indicator of equivalent economic situation for accessing specific measures.

5 ENEA, "Certificazione energetica degli edifici, Rapporto 2022". The data is acquired from the Regions, Autonomous Provinces and from SIAPE (Sistema Informativo sugli Attestati di Prestazione Energetica).

6 Low decree n. 11/2023 (art. 2, paragraph 1)

Moreover, the Italian budget law 2023 provides for a deduction of 50% on VAT for purchases of energy efficient homes (Class A and B).

Other important fiscal measures to encourage, in general terms, the renovation and improvement of buildings are in force, in particular:

- the "Restructuring Bonus" which consists of an income tax deduction of 50% for expenses carried out on private properties and on the commonly owned parts of condominiums in relation to extraordinary maintenance, renovation, restoration, conservative rehabilitation of the buildings up to a maximum of EUR 96,000 per property unit. It is in force until 2024;
- the "Seismic bonus" for residential and productive properties, located in seismic zones: which consists of a tax deduction of the expenses incurred until 2024 to carry out seismic risk reduction work, improving the seismic class of the property. The amount of the deduction is different in relation to certain parameters and the type of works (from 50% to 85%), up to a cap amount of, generally, equal to EUR 96,000;
- the "Furniture bonus" for property renovations: which consists of a 50% deduction until 2024 on purchases of furniture and large household appliances in the context of the renovation of the house up to a maximum of EUR 8,000 in 2023 and EUR 5,000 in 2024;
- the "Green bonus": which provides a deduction of 36% of the expenses incurred, with a cap of EUR 5,000 for greening interventions of private uncovered areas of existing buildings, real estate units, irrigation systems and construction of wells, realization of green roofs and hanging gardens.

According to the previous rules, the tax deduction could be converted into an invoice discount or a tax credit that could be transferred to banks or financial intermediaries. According to the new rules in force from the 17 February 2023, in general terms, this possibility does not allow works started from the mentioned date; it continues to be used in the form of an annual deduction.

	ITALY 2021	ITALY 2022	EU 27 2022
MACROECONOMIC VARIABLES			
Real GDP growth (%) (1)	7.0	3.7	3.5
Unemployment Rate (LSF), annual average (%) (1)	9.5	8.1	6.2
HICP inflation (%) (1)	1.9	8.7	9.2
HOUSING MARKET			
Owner occupation rate (%) (1)	73.7	74.3	69.1
Gross Fixed Investment in Housing (annual change)(1)	25.9	10.3	1.5
Building Permits (2015=100) (2)	139.4	140.7	125.8
House Price Index – country (2015=100) (2)	103.0	106.9	164.6*
House Price Index – capital (2015=100) (2)	85.7	87.0	163.8*
Nominal house price growth (%) (2)	2.6	3.8	10.6*
MORTGAGE MARKET			
Outstanding Residential Loans (mn EUR) (2)	409,868	426,959	6,743,197
Outstanding Residential Loans per capita over 18 (EUR) (2)	8,216	8,572	18,433
Outstanding Residential Loans to disposable income ratio (%) (2)	34.2	33.5	71.5
Gross residential lending, annual growth (%) (2)	3.6	-12.1	-6.5
Typical mortgage rate, annual average (%) (2)	1.4	3.0	3.1

* Please note that this value is a simple average of the available values in 2022.

Sources:
(1) Eurostat
(2) European Mortgage Federation - Hypostat 2023, Statistical Tables.

ITALY FACT TABLE

Which entities can issue mortgage loans in your country?	Banks and financial intermediaries.
What is the market share of new mortgage issuances between these entities?	More than 95% of new mortgage loans are issued by banks.
Which entities hold what proportion of outstanding mortgage loans in your country?	Data no available.
What is the typical LTV ratio on residential mortgage loans in your country?	Data no available.
How is the distinction made between loans for residential and non-residential purposes in your country?	Residential loans are loans granted for house purchase and renovation.
What is/are the most common mortgage product(s) in your country?	Fixed interest rate mortgage loans to purchase residential real estate.
What is the typical/ average maturity for a mortgage in your country?	20-25 years.
What is/are the most common ways to fund mortgage lending in your country?	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.
What is the level of costs associated with house purchase in your country (taxes and other transaction costs)?	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).
What is the level (if any) of government subsidies for house purchases in your country?	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 Loan Guarantee Fund and the Solidary Fund for mortgages are in force; they support credit access for the first house purchase.

Latvia

By Andrejs Semjonovs, Bank of Latvia

IN A NUTSHELL

- → The economy grew by 2.8%, supported by the post-pandemic recovery of service industries but restrained by a decrease in purchasing power.
- → Overall transactions in the real estate market decreased driven by deteriorating household purchasing power and rising interest rates, but price growth started to slow down.
- → Outstanding amount of residential and commercial mortgage loans held by banks continued to grow moderately, while household lending witnessed clear-cut signs of deceleration, due to interest rate hikes. Domestic deposits continue to dominate bank funding.

MACROECONOMIC OVERVIEW

The political conflict in Ukraine lead to elevated uncertainty and price increases. Against that the economy grew by 2.8% due to service industries recovering from pandemic, while the growth was held back by a reduction in purchasing power. The uncertainty provoked stockpiling, pushing up real import growth to 11.8% , while growth of real exports was also strong at 9.2%.

The gross-fixed capital formation growth slowed to 0.8%, due to the higher construction material prices and economic uncertainty, which made investors reconsider upcoming projects. However, private consumption increased by 8.3% due to the end of Covid restrictions at the beginning of the year, the government support during the high inflation period and a higher spending of savings among households.

Although, there was an increase in the number of people participating in the labour market, it remained tight, and the unemployment rate dropped to 6.9%. However, starting in the second half of 2022, the number of job openings began to decline, indicating a decreasing but still significant demand for labour. Although the annual growth rate of wages was near 9% in 2022, the real compensation per employee plummeted due to high HICP inflation which reached 17.2%.

The general government budget deficit reached 4.4% of GDP due to support measures such as Covid support, energy support including partial compensation of price increase and refugee support. The government debt-to-GDP ratio dropped by 2.9 pps compared to 2021 due to the growth of nominal GDP and remained at 40.8%.

HOUSING MARKETS

Hampered by deteriorating household purchasing power, rising interest rates and worsening affordability of newly built dwellings, activity in the real estate market has been decreasing since the second half of 2022. In April 2023, the number of transactions in the real estate market was 15.2% smaller than a year ago. The decline in activity was particularly sharp in the region near the capital, where the number of purchases in February 2023 fell to the lows seen in 2020. Transactions with private houses and land for residential construction fell significantly, while the activity in the apartment segment fell only moderately.

Supply remained weak as the construction of new apartments was constrained by the rapid increase in construction costs. According to Central Statistical Bureau's data, the total area of new dwellings commissioned in 2022 increased by 23.0% compared to the record low figure in 2021 but was 5.6% and 19.4% lower than in 2020 and 2019, respectively. As the number of new projects and projects actual under construction has decreased in 2022, fewer new apartments will be available to the market in 2023.

The overall growth in house prices is slowing but vary considerably by segment. In the 4th quarter of 2022, the Central Statistical Bureau's house price index was 9.1% higher than a year ago, but in quarterly terms prices decreased by 0.2%. Due to growing supply of standard series apartments in the secondary market and overall lower demand in this segment, the annual growth rate of existing dwelling prices has been slowing. Yet the growth of newly built dwelling prices has been accelerating, supported by rapid increase in construction costs.

Affordability of existing dwellings overall remained good, but the affordability of new housing worsened significantly in 2022. The increase in wages significantly lags the increase in the prices of new housing, while rising interest rates on housing loans harm the creditworthiness of potential borrowers.

There are no signs of a sharp price correction currently, as the imbalances in the housing market have not grown significantly since the pandemic. Lending for house purchases has been cautious and household debt is low. Prices of newly built housing are set to continue to increase, as construction cost growth remains elevated. The ability of developers to throughput construction costs to new house prices overall has been strong thus far, as the housing construction volume has been small and supply is lagging demand for a prolonged time already.

MORTGAGE MARKETS

The outstanding amount of residential and commercial mortgage loans held by banks continued to grow moderately (by 4.5%). Residential mortgages outstanding increased by 4.9% facilitated by the state support programme[1] for house purchase. However, already in late 2022, following substantial interest rate hikes, household lending witnessed clear-cut signs of deceleration.

[1] Within the programme, a guarantee for a bank loan for purchase or construction of the housing for the families with children, young specialists or the National armed forces soldiers with regular income but not enough savings to make the downpayment is provided. The LTV requirement for these state-guaranteed loans is set at a maximum of 95% (the general maximum LTV requirement is 90%. More details on the programme available here :
https://www.altum.lv/en/services/individuals/housing-guarantees-for-families/
https://www.altum.lv/en/services/individuals/housing-guarantees-for-young-professionals/
https://www.altum.lv/en/services/individuals/for-the-armed-forces-soldiers/

The LTVs of new residential mortgage loans remained stable. LTVs for 26% of new loans volume exceeded 90%, mainly related to the state housing guarantee program. Total residential mortgage loans are still low at 12% of GDP at yearend, and overall household indebtedness remains low. Interest rates on residential mortgage loans have increased significantly in line with EURIBOR growth – from 2.4% in 2021 to 2.9% in 2022 (or from 2.2% in December 2021 to 4.3% in December 2022).

The quality of bank loan portfolios still continues to improve – the share of NPLs reached 1.7% of the total domestic loans and 1.0% of the residential mortgage loans at the end of 2022.

MORTGAGE FUNDING

Credit institutions obtain funding mostly from domestic retail and non-financial corporations' deposits. Some banks participated in TLTRO III operations, but half of the amount has already been repaid. Credit institutions are not active in the financial markets for funding. Domestic deposits continued to grow and reached 68.2% at the end of 2022 (compared to 66.4% the year before) of banks' total liabilities, while the share of liabilities to foreign parent MFIs (mostly Nordic parent banks) was 4.3% (2.8% in 2021), as only small foreign branches used parent bank funding and the banking sector domestic loan to deposit ratio was still low – 72.0% (74.8% in 2021). In 2022, there were no mortgage covered bonds issued by Latvian banks. However, an Estonian bank's Latvian branch mortgages were included in an Estonian covered bond programme.

	LATVIA 2021	LATVIA 2022	EU 27 2022
MACROECONOMIC VARIABLES			
Real GDP growth (%) (1)	4.3	2.8	3.5
Unemployment Rate (LSF), annual average (%) (1)	7.6	6.9	6.2
HICP inflation (%) (1)	3.2	17.2	9.2
HOUSING MARKET			
Owner occupation rate (%) (1)	83.2	83.1	69.1
Gross Fixed Investment in Housing (annual change)(1)	-15.4	-11.2	1.5
Building Permits (2015=100) (2)	135.3	134.1	125.8
House Price Index – country (2015=100) (2)	162.1	184.5	164.6*
House Price Index – capital (2015=100) (2)	n/a	n/a	163.8*
Nominal house price growth (%) (2)	11.2	13.9	10.6*
MORTGAGE MARKET			
Outstanding Residential Loans (mn EUR) (2)	4,505	4,713	6,743,197
Outstanding Residential Loans per capita over 18 (EUR) (2)	2,935	3,103	18,433
Outstanding Residential Loans to disposable income ratio (%) (2)	21.8	19.4	71.5
Gross residential lending, annual growth (%) (2)	n/a	n/a	-6.5
Typical mortgage rate, annual average (%) (2)	2.4	2.9	3.1

* Please note that this value is a simple average of the available values in 2022.

Sources:
(1) Eurostat
(2) European Mortgage Federation - Hypostat 2023, Statistical Tables.

LATVIA FACT TABLE

Which entities can issue mortgage loans in your country?	Credit institutions, credit unions and non-bank financial institutions can issue mortgage loans in Latvia.
What is the market share of new mortgage issuances between these entities?	Not available
Which entities hold what proportion of outstanding mortgage loans in your country?	The mortgage market is significantly dominated by mortgage loans issued by banks.
What is the typical LTV ratio on residential mortgage loans in your country?	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%.
How is the distinction made between loans for residential and non-residential purposes in your country?	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).
What is/are the most common mortgage product(s) in your country?	Housing loans
What is the typical/average maturity for a mortgage in your country?	The typical maturity of a new issued mortgage is 21 years.
What is/are the most common ways to fund mortgage lending in your country?	See section on Mortgage funding.
What is the level of costs associated with house purchase in your country (taxes and other transaction costs)?	A stamp duty of 0.5-1.5% of the home price applies when registering the purchase. Regularly, the 1.5% fee applies, and the stamp duty is reduced to 0.5% under the support programme for house purchase. The reduced cost is applied only to families with children, and not for young specialists (please see question 10 on the overview of the support programmes). 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.
What is the level (if any) of government subsidies for house purchases in your country?	It is possible to obtain a state guarantee up to 30% of the loan amount, but not exceeding EUR 30,000 for families with children (the exact amount of the guarantee depending on the number of children). In addition, an extra 5% increase in the guarantee (but not exceeding the amount of EUR 30,000) is possible if the dwelling corresponds to the "A" energy efficiency class of buildings or is nearly zero energy building. Moreover, families with at least three children that have applied for a mortgage in the largest commercial banks in Latvia starting from July 1st 2020 are eligible as of second half of November 2020 to receive a state subsidy in the amount of 8 to 12 thousand euro (the exact amount depending on the number of children in the family and energy efficiency of the housing to be purchased/built). Although approved 17th of November, it applies retroactively to mortgages granted since 1 July 2020, and was announced already before 1 July 2020. For young specialists (individuals up to 35 years old who have acquired the vocational secondary or higher education) it is possible to obtain a guarantee up to EUR 50,000.

Lithuania

Eric Huellen, European Mortgage Federation – European Covered Bond Council

IN A NUTSHELL

- → The economy grew by 1.9%, unemployment decreased to 6.0% and inflation increased to 18.9%. The general government deficit decreased to 0.6% of GDP.
- → House prices increased by 19%, while issued building permits decreased to 8,426, a fall of 23%.
- → Outstanding residential mortgages and new lending continued the growing trend of previous years.

MACROECONOMIC OVERVIEW

Following the political conflict in Ukraine, economic activity slowed due to contracting private consumption over the last three quarters, driven by a drop in consumer confidence and household disposable income. Large supply chain disruptions drove input prices up and hindered the performance and competitiveness of industries in some sectors, putting a drag on investment. As a result, economic growth turned negative in the fourth quarter (-0.5%) and annual growth slowed down to 1.9%. For 2023, economic activity is set to continue to be impacted by economic and geopolitical uncertainty. Growth is expected to benefit from a slight pick-up of private consumption, thanks to easing price pressures and improved purchasing power. Nonetheless, the high price of basic consumer goods, such as food and energy, is set to continue to subdue consumer spending.

Unemployment was at 6.0% at the end of the year, down from 7.1% in 2021. Some signs of cooling in the labour market emerged by the end of the year and the slowdown in GDP growth negatively impacted employment growth with the number of vacancies decreasing and a slight increase in unemployment.

HICP inflation in Lithuania surged to 18.9% but is expected to moderate to 9.2% in 2023. Prices growth was already decelerating at the turn of the year, thanks to declining energy prices, owing in particular to the compensation of gas and electricity prices for households and businesses.

In 2022, the general government deficit decreased to 0.6% of GDP due to lower-than-expected expenditure on energy support measures and intermediate consumption. In 2023, public debt is forecast to reach 37.1% of GDP.

HOUSING MARKETS

At the beginning of the year, real estate prices were still on the rise, continuing an unprecedented real estate price increase of 2021. But geopolitical uncertainty caused by the conflict in Ukraine, subsequent turmoil in commodity and energy markets and soaring inflation made the second half very different. House prices in the first half of 2022 grew by 12.9%, while house prices in the second half of the year grew only by 4.7%. Overall, the HPI still increased to an annual average of 195.0 from 163.8 in 2021 (base year 2015).

Although as of January 2023 there has not been any noticeable real estate price decrease, the final months of 2022 saw a sharp drop in real estate transactions. In 2022 the number of real estate transactions was about 25 per cent lower than that in the previous year. After increasing in 2021, the number of building permits issued decreased by over 23%. The significant slowdown in building permits was due to economic and political factors, such as high inflation and the rise in interest rates. The total number of transactions in 2022 was only 5,872 (6,836 in 2021), the lowest amount since 2016.

MORTGAGE MARKETS

The mortgage market continued to grow - to EUR 11.5 bn outstanding by year end, a growth rate of 12.1%, from 11.6% in 2021. Breaking the trend of falling interest rates since 2017, average interest rates increased to 2.76% (2.16% in 2021). The share of gross residential lending with a variable interest rate (fixed for up to 1 year) remained high at 96.0%, but decreased slightly from 97.6% of new loans in 2021.

MORTGAGE FUNDING

As in previous years, deposits remained the primary source of mortgage funding. In 2022, deposits continued to grow. The competitive landscape is dominated by SEB, Swedbank, and Luminor (merged DNB and Nordea banks), who have over 95% of the mortgage market.

	LITHUANIA 2021	LITHUANIA 2022	EU 27 2022
MACROECONOMIC VARIABLES			
Real GDP growth (%) (1)	6.0	1.9	3.5
Unemployment Rate (LSF), annual average (%) (1)	7.1	6.0	6.2
HICP inflation (%) (1)	4.6	18.9	9.2
HOUSING MARKET			
Owner occupation rate (%) (1)	89.0	88.6	69.1
Gross Fixed Investment in Housing (annual change)(1)	-1.4	18.2	1.5
Building Permits (2015=100) (2)	175.0	119.9	125.8
House Price Index – country (2015=100) (2)	163.8	195.0	164.6*
House Price Index – capital (2015=100) (2)	#N/A	#N/A	163.8*
Nominal house price growth (%) (2)	16.1	19.0	10.6*
MORTGAGE MARKET			
Outstanding Residential Loans (mn EUR) (2)	10,237	11,471	6,743,197
Outstanding Residential Loans per capita over 18 (EUR) (2)	4,442	4,965	18,433
Outstanding Residential Loans to disposable income ratio (%) (2)	29.3	28.5	71.5
Gross residential lending, annual growth (%) (2)	38.8	11.3	-6.5
Typical mortgage rate, annual average (%) (2)	2.2	2.8	3.1

* Please note that this value is the simple average of the available values in 2022.

Sources:
(1) Eurostat.
(2) European Mortgage Federation – Hypostat 2023, Statistical Tables.

LITHUANIA FACT TABLE

Which entities can issue mortgage loans in your country?	Banks and bank' branches.
What is the market share of new mortgage issuances between these entities?	100% banks
Which entities hold what proportion of outstanding mortgage loans in your country?	100% banks
What is the typical LTV ratio on residential mortgage loans in your country?	No statistical data on average LTV is available. New buyers tend to max out with their LTVs, getting close to 80%.
How is the distinction made between loans for residential and non-residential purposes in your country?	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.
What is/are the most common mortgage product(s) in your country?	30 year, 6 month EURIBOR mortgages.
What is the typical/ average maturity for a mortgage in your country?	30 years
What is/are the most common ways to fund mortgage lending in your country?	Deposits
What is the level of costs associated with house purchase in your country (taxes and other transaction costs)?	Low to medium level associated
What is the level (if any) of government subsidies for house purchases in your country?	Not available

Luxembourg

By Eric Huellen, European Mortgage Federation – European Covered Bond Council

IN A NUTSHELL

- → The economy grew by 1.5%, unemployment decreased to 4.6% and inflation increased to 8.2%. The general government balance was a surplus of 0.2% GDP.
- → House prices rose slower due to an increase in interest rates. New building permits dropped to the lowest amount since 2016.
- → Outstanding residential mortgages and new lending stopped the growing trend of previous years.

MACROECONOMIC OVERVIEW

The economy slowed down to 1.5% GDP-growth y-o-y after 6.9% in 2022 mainly driven by a decrease in private consumption, exports and investment, in particular in the construction sector. Also, activity in the financial sector weakened due to the volatility and decline in market valuation of financial assets. Unemployment decreased to 4.6% year-end 2022 from 5.3% in 2021 mainly due to a still high job vacancy rate and improvements in the employment prospects in some sectors such as construction. According to the European Commission's Spring Forecast (from May 2023), private consumption is projected to rebound, due to an excess of savings and further government support. Domestic demand is still underpinned by government consumption and higher employee compensation. The investment rate is still expected to remain low, as rising interest rates pressure borrowing capacity and mortgage demand. Therefore, the European Commission's Spring Forecast is expecting a GDP growth of 1.6% in 2023.

The general government balance was a surplus of 0.2% GDP, driven by high revenue growth from a strong labour market and high inflation-related tax income. In 2023 the government surplus is expected to turn negative to -1.7%, due to moderate GDP growth and government support measurements.

Inflation increased to 8.2%, due to higher energy and food prices. The European Commission forecasts inflation to stabilize in 2023 at 3.2% because of lower energy prices due to government support.

HOUSING MARKETS

House prices rose by 9.6%, which is a decrease of 4.3% compared to 2021, driven by an increase in average annual interest rates to 2.1% in 2022. Per capita indebtedness decreased after steadily increasing for five years. Demand for housing remained high as a result of population growth in particular immigration.

After increasing in 2021, the number of building permits issued in 2022 decreased by over 23%, while the number of residents increased by nearly 23%. The slowdown in building permits was due to economic and political factors, such as high inflation and the rise in interest rates. The total number of transactions in 2022 was only 5,872 (6,836 in 2022), the lowest amount since 2016.

MORTGAGE MARKETS

The mortgage market still continued to grow - to EUR 44.6 bn by year end - but at a slower pace. Gross residential lending fell by -17% after several years of growth only reaching a total volume of EUR 9.337 bn in 2022 (11.243 in 2021). Breaking the trend of falling interest rates since 2018, average interest rates increased, to 2.12% by year end. The share of gross residential lending with a variable interest rate (fixed for up to 1 year) increased by 32% to 46.2% of newly issued loans.

MORTGAGE FUNDING

Mortgages in Luxembourg are principally funded through deposits.

GREEN FUNDING

Next to the PRIMe House 2017 program launched in 2017, which provides grants for energy efficiency renovations to improve the long-term of residential buildings and incentivize renewable energy sources, the Ministry of the Environment introduced the Klimabonus RGD 2022. The Klimabonus RGD 2022 aims to make homes more energy efficient, facilitate the choice of zero-emission mobility solutions and enable citizens to manage the environment and forestry resources responsibly. This change will be accompanied by measures to support low-income households in particular.

	LUXEMBOURG 2021	LUXEMBOURG 2022	EU 27 2022
MACROECONOMIC VARIABLES			
Real GDP growth (%) (1)	5.1	1.5	3.5
Unemployment Rate (LSF), annual average (%) (1)	5.3	4.6	6.2
HICP inflation (%) (1)	3.5	8.2	9.2
HOUSING MARKET			
Owner occupation rate (%) (1)	71.1	72.4	69.1
Gross Fixed Investment in Housing (annual change)(1)	3.0	-6.9	1.5
Building Permits (2015=100) (2)	133.9	103.3	125.8
House Price Index - country (2015=100) (2)	172.2	188.6	164.6*
House Price Index - capital (2015=100) (2)	n/a	n/a	163.8*
Nominal house price growth (%) (2)	13.9	9.6	10.6*
MORTGAGE MARKET			
Outstanding Residential Loans (mn EUR) (2)	42,464	44,596	6,743,197
Outstanding Residential Loans per capita over 18 (EUR) (2)	82,597	85,310	18,433
Outstanding Residential Loans to disposable income ratio (%) (2)	163.2	152.2	71.5
Gross residential lending, annual growth (%) (2)	5.2	-17.0	-6.5
Typical mortgage rate, annual average (%) (2)	1.3	2.1	3.1

* Please note that this value is the simple average of the available values in 2022.

Sources:
(1) Eurostat
(2) European Mortgage Federation – Hypostat 2023, Statistical Tables.

LUXEMBOURG FACT TABLE

Which entities can issue mortgage loans in your country?	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.
What is the market share of new mortgage issuances between these entities?	100%
Which entities hold what proportion of outstanding mortgage loans in your country?	Six domestically-oriented banks, hold 90% of mortgage loans.
What is the typical LTV ratio on residential mortgage loans in your country?	The usual maximal LTV ratio amounts to 80%.
How is the distinction made between loans for residential and non-residential purposes in your country?	Not available
What is/are the most common mortgage product(s) in your country?	The most common mortgage contract is at a fixed rate. (62% of loans issued in 2021 = fixed, and so 38% variable)
What is the typical/average maturity for a mortgage in your country?	The standard maturity for mortgage loans is 25 to 30 years, while some banks grant credits for up to 35 years.
What is/are the most common ways to fund mortgage lending in your country?	Mostly deposits
What is the level of costs associated with house purchase in your country (taxes and other transaction costs)?	Roundtrip transaction cost (registration tax, notary fees, real estate agent's fee, transcript tax) are between 12%-16.5%.
What is the level (if any) of government subsidies for house purchases in your country?	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

- → After the post pandemic growth surge in 2021, the economy still continued to grow, by 6.9%.
- → While Russia's war in Ukraine caused new supply disruptions and an energy crisis, the Government's decision to keep energy prices stable helped keep overall inflation below the Euro area average.
- → Residential property prices continued to increase during the first three quarters of 2022 at an average annual rate of 6.9% following the 5.1% increase recorded for 2021 as a whole.
- → Mortgage lending grew by 9.8% in 2022, reaching around EUR 7.1 bn.

MACROECONOMIC OVERVIEW

Economic activity moderated following the strong growth in 2021, partly as a result of heightened geopolitical risks due to the war in Ukraine and rising inflation. Despite this, growth still exceeded that in the Euro area, at 6.9% (11.8% in 2021). Once again, growth was driven mainly by domestic demand which increased more than in 2021 and pre-pandemic levels and adding 10.9 pps to GDP growth.

Imports grew by 9.7% and exports increased by 6.4%. The decline in net exports reduced GDP growth by 4.0 pps. The negative contribution reflected a strong widening in the goods deficit (in volume terms), compared to 2021. This offset an improvement in the services balance.

Government consumption grew by 2.4%, (6.9% in2021) due to lower growth in spending on intermediate consumption and compensation of employees. In 2021, both these components were boosted by pandemic-related spending, such as outlays on treatment and additional allowances. These base effects offset a decline in revenue from sales, which is netted against consumption expenditure. Overall, government consumption added 0.5 pps to annual GDP growth.

During the first three quarters of 2022, the labour force expanded by 4.3%, a faster pace than the 1.6% recorded during the corresponding period for 2021. Employment grew by 5.0% in the first three quarters (2.4% in 2021) and exceeding the average increase of 3.3% since 2003. According to the Labour Force Survey (LFS) the unemployment rate averaged 2.9% during the first three quarters of 2022, compared to 3.5% in the same period of 2021. Nevertheless, the rate remained well below that of 6.7% registered in the Euro area.

Labour productivity rose by 0.8% in 2022, following a rise of 8.6% in the previous year when activity rebounded from the pandemic shock.

In the first three quarters of 2022, the general government registered a deficit of EUR 631.0 mn, a reduction of EUR 234.4 mn since the corresponding period of 2021. This was due to a significant increase in revenue, offsetting that in government expenditure. As a result, the primary deficit narrowed from EUR 737.9 mn in the first three quarters of 2021 to EUR 509.7 mn in the corresponding period of 2022.

The general government deficit-to-GDP ratio narrowed from 7.5% at end-2021, to 5.4% in the year to end of Q3 (the final figure for the whole year is not available at time of publication). Despite this improvement, the deficit in the first three quarters of the year remained well above the 3% European Union's, albeit suspended, Stability and Growth Pact rules. Financing needs also reflected debt-decreasing deficit-debt adjustments. As a result, the government debt-to-GDP ratio declined by the third quarter of 2022. Overall, it fell by 2.0 pps compared to December 2021, reaching 53.1% of GDP. This is well below the Euro area average.

The average rate of consumer price inflation (HICP) was 6.1%, well above the 0.7% in the previous year. The rise in inflation occurred in an environment of elevated international price pressures, lingering supply bottlenecks and renewed trade disruptions following the outbreak of the war in Ukraine. Inflation has continued to increase since May 2021.

HOUSING AND MORTGAGE MARKETS

The home-ownership rate rose to around 83%. The number of housing construction permits rose in 2022 to 9,599 (7,578 in 2021 and 7,831 in 2020). Apartments were again by far the largest residential category, accounting for almost 70% of new building permits issued in 2022.

The number of residential property sales was 14,331 (14,368 in 2021) or EUR 3.3 bn (EUR 3.2 bn in 2021).

Residential property prices continued to increase during the first three quarters. The NSO's Property Price Index (PPI) – which is based on actual transactions involving apartments, maisonettes and terraced houses – increased at an average annual rate of 6.9% during the first nine months, following 5.1% in 2021 as a whole. House price inflation was lower than that in the Euro area, where it averaged 8.6% in the first three quarters of 2022.

Mortgages to residents for house purchases totalled around EUR 7.1 bn at the end of 2022, up from almost EUR 5.5 bn in 2021. The core domestic banks extended well over 90% of the credit provided to households and individuals (which includes mortgage loans). The median LTV ratio was 80% (2019). In 2022 average interest rates on new residential loans eased slightly to 2.67% (2.80% in 2021).

In recent years, various factors contributed to the attractiveness of property investment such as: an increase in disposable income; the influx of foreign workers which increased demand for property and a growth in tourism which led to a strong demand for private accommodation.

Moreover, residential property prices continued to be supported by a number of factors, including low interest rates and government schemes supporting the residential property market, some of which were modified during the year. For example, as part of its response to COVID-19, in June 2020, the Government lowered the property tax rate and stamp duty on eligible transfers of immovable property from 9 June 2020 until 1 April 2021. In particular, the property tax and stamp duty on the first EUR400,000 of the value of the transfer were reduced to 5.0% and 1.5%, respectively. Furthermore, the Budget for 2021 extended more favourable terms on a number of existing schemes supporting the property market.

The Malta Citizenship by Investment scheme which allows foreigners to acquire Maltese citizenship, subject to certain conditions:

- a significant non-refundable investment – which in the case of the main applicant – EUR 600,000 (3 year residency) or EUR 750,000 (1 year residency) to the National Development and Social Fund (NDSF) set up by the Government of Malta and run by a board of trustees;
- either purchasing property in Malta for EUR 700,000 or more and maintaining ownership for 5+ years, or leasing a property for at least five years with a minimum annual rent of EUR 16,000;
- upon the applicant being approved in principle, he or she must donate at least EUR 10,000 to a local non-profit organisation;

also played a role in generating demand for local properties.

MORTGAGE FUNDING

Mortgage loans are mainly provided by the core domestic banks (largest 6 banks, whose business is almost exclusively undertaken with local residents), predominantly Bank of Valletta plc and HSBC Bank Malta plc, which account for almost 70% of the domestic retail market (as a percentage of total deposits held by the core domestic banks). The core domestic banks rely mainly on resident deposits for funding, which in 2022 increased to almost EUR 27 bn. Local retail deposits provide ample liquidity to the core domestic banks and with a loan-to-deposit ratio as low as 55.2% (as of June 2022), they do not need to resort to securitisation or covered bonds.

GREEN FUNDING

During the last 2-3 years, various banks from the core domestic banks cohort, launched a wide array of green energy loan products to assist customers finance the acquisition of equipment and fixtures such as solutions that generate renewable energy or increase energy efficiency – which include PV panels; green roof gardens; solar water collectors; space heating and hot water or cooling generation; insulation; interior and exterior apertures – double glazing and insulation; ventilation, heating or cooling and lighting systems; energy generation household storage and EV household charging stations.

Sources: inter alia CBM Annual Report 2022, CBM Interim Financial Stability Report 2022, NSO website and CBM website Monetary and Banking Statistics

	MALTA 2021	MALTA 2022	EU 27 2022
MACROECONOMIC VARIABLES			
Real GDP growth (%) (1)	11.7	7.1	3.5
Unemployment Rate (LSF), annual average (%) (1)	3.4	2.9	6.2
HICP inflation (%) (1)	0.7	6.1	9.2
HOUSING MARKET			
Owner occupation rate (%) (1)	81.9	82.6	69.1
Gross Fixed Investment in Housing (annual change)(1)	4.2	-3.5	1.5
Building Permits (2015=100) (2)	192.0	241.3	125.8
House Price Index – country (2015=100) (2)	135.4	144.5	164.6*
House Price Index – capital (2015=100) (2)	n/a	n/a	163.8*
Nominal house price growth (%) (2)	3.7	6.7	10.6*
MORTGAGE MARKET			
Outstanding Residential Loans (mn EUR) (2)	6,459	7,910	6,743,197
Outstanding Residential Loans per capita over 18 (EUR) (2)	14,884	18,047	18,433
Outstanding Residential Loans to disposable income ratio (%) (2)	n/a	n/a	71.5
Gross residential lending, annual growth (%) (2)	n/a	n/a	-6.5
Typical mortgage rate, annual average (%) (2)	3.0	2.9	3.1

* Please note that this value is the simple average of the available values in 2022.

Sources:
(1) Eurostat
(2) European Mortgage Federation - Hypostat 2023, Statistical Tables.

MALTA FACT TABLE

Which entities can issue mortgage loans in your country?	Main issuers of mortgage loans within the local banking sector are the 6 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; plus 3 other banks, FCM Bank Ltd, FIMBank plc and Izola Bank p.l.c.
What is the market share of new mortgage issuances between these entities?	Not available
Which entities hold what proportion of outstanding mortgage loans in your country?	As an approximation, HSBC Bank and Bank of Valletta (BOV) account for 68% of the total assets held by the core domestic banks. The latter's mortgage and consumer credit loans to household and individuals totalled around EUR 9.8 bn as at end 2022, with most of this figure comprising mortgages. In 2022, a deceleration in loans to households which mainly reflected slower growth in lending for house purchases was noted. In fact, mortgage lending grew by 9.8% in 2022 when compared with a 10.9% increase in 2021. The CBM's Interim Financial Stability Report for 2022 (FSR) published an interesting Special Feature titled: The Effect of Rising Interest Rates on Households' Mortgage Repayment Capabilities; which provided interesting technical insights into how potential increases in interest rates on mortgages would eventually test households' loan repayment capabilities. The Feature aims to identify potential groups of borrowers which could be vulnerable to hypothetical interest rate hikes of up to 250 basis points. New loans data was used spanning between 2020Q4 and 2022Q2. In the main, borrower-based metrics remained healthy up to an interest rate shock of 150 basis points, in line with the requirements of the Central Bank of Malta's Directive No. 16.18 However, further interest rate hikes up to a maximum of 250 basis points would burden households' repayment capabilities with around a quarter of the loans' exceeding 40% for the loan service-to-income (LSTI). The article may be found through the link below: *https://www.centralbankmalta.org/site/Publications/Interim-FSR-2022.pdf?revcount=1473*
What is the typical LTV ratio on residential mortgage loans in your country?	It appears that the median loan-to-value (LTV) ratio for RRE lending has remained contained at around 80%.
How is the distinction made between loans for residential and non-residential purposes in your country?	The banks in Malta clearly differentiate between mortgages for residents and commercial/business loans involving property development. Moreover, with the implementation by the Central Bank of Malta in 2019 of CBM Directive No. 16 – Regulation on Borrower Based Measures (BBMs), a minimum standard was set 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. Paragraph 19 of the said Directive on BBMs, states that domestic banks' compliance with the Directive is to be verified annually by the internal auditor of the reporting lender, and by an external auditor at the end of the financial year of the third year of application of the Directive, and every third year thereafter. In view that 2021 was the third year of application of the Directive, banks were required to submit their external audit reports for 2021, which were received by the CBM during the course of 2022. The CBM analysed the reports, provided feedback as well as requested clarifications from the relevant banks as deemed required. Overall, the banks were found to be compliant with the provisions of the Directive.
What is/are the most common mortgage product(s) in your country?	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 repay¬ments can normally be agreed for an initial number of years, during which interest only is repaid.
What is the typical/average maturity for a mortgage in your country?	The maximum maturity granted in Malta is linked to the retirement age. 40-year mortgages to Category I borrowers are only issued on condition that the mortgage is repaid before the borrower reaches the age of 65.
What is/are the most common ways to fund mortgage lending in your country?	Mortgage funding in Malta remains mainly deposit-based. Core domestic banks, with assets of about 1.85 times (in 2022) GDP, provide over 95% of bank lending to residents in Malta and collect around 97.5% of total resident customer deposits.
What is the level of costs associated with house purchase in your country (taxes and other transaction costs)?	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 sys¬tem 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 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.

What is the level (if any) of government subsidies for house purchases in your country?

The Maltese Housing Authority embarked on a EUR 50 mn project which involved a EUR 25 mn financ¬ing from the European Investment Bank. The project concerned 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 reduc¬tion 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 implemen¬tation of the housing strategy developed by Maltese municipalities. Housing construction typically gener¬ates 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), Cas Bonsema (Rabobank), Paul de Vries (Land Registry) and Nico de Vries (ING)

IN A NUTSHELL

→ Economy grew by 4.5%.

→ House prices declined after sharp price increase.

→ Interest rates increased rapidly (10 year fixed from 1.3% to 4.3%).

MACROECONOMIC OVERVIEW

The economy expanded by 4.5% as the final lockdowns ended in the first quarter, GDP increased significantly, especially in the second quarter. The main growth driver was consumption, as many consumers were eager to buy more recreational, cultural and hospitality services post-lockdown. It was facilitated by strong employment growth, accelerating wages and generous government support for households in light of the energy crisis. HICP-inflation increased significantly to 11.6%, due to global supply chain issues, the crisis in Ukraine, rising demand and especially high energy prices.

As covid testing and vaccination capacity was reduced, the growth in public consumption (1.5%) was less than in 2021 (5.2%). But the new government that came into power in February continued expansionary policies, even more ambitiously than the previous government. Public investment fell considerably (4.3%), as some infrastructure projects struggled with tight environmental policies (Economisch Instituut voor de Bouw, eib). Private investment grew by 3.8%. Expenditure on commercial real estate, ICT equipment, and intangible assets expanded particularly. Generous public covid-support for businesses and employment was largely terminated by the second quarter and firms started repaying deferred taxes as of October. While the number of bankruptcies increased, it remained historically low.

International trade grew, goods exports by 2.3% and service exports by 12.7%. Imports increased more moderately, leading to an increase in the current account surplus.

Amidst high energy prices, manufacturing held up production. While some firms went bankrupt and some facilities were temporarily shut down in energy-intensive sub-sectors, manufacturing still managed to expand its value added by 3.4%. In part, this is due to strong performance of (especially semi-conductor) machinery, electronics and pharmaceuticals. The travel business, culture, recreation and sports and the hospitality sector showed the highest growth rates, all in double digits as covid-restrictions faded.

LOOKING AHEAD

Disposable income of (potential) homeowners is expected to increase significantly in 2023, due to reductions in the labour income tax and especially due to the tightness in the labour market that leads to contractual wage increases of on average close to 6%, a growth rate last seen in 1982. The expected increase in household incomes results in increased maximum borrowing capacity. Specifically, wage increases are at a minimum translating into a 1:1 increase in the maximum mortgage amount, but depending on household income can even be somewhat higher than the increase in income. In any case, affordability improves, supporting demand for homes. Relatedly, the second income in dual-income households counts for 100% in the mortgage underwriting standards in 2023, up from 90% previously, and so income gains are further amplified when it comes to borrowing capacity for dual-income households.

Finally, a key contributor to households' ability and willingness to buy a house is expected to be buoyed by continued low unemployment. Whilst unemployment is generally expected to increase, the increase is anticipated to be quite modest, keeping unemployment at very low levels in a historical context.

HOUSING MARKETS

The year had two phases: A sharp price increases followed by a period of price decline. It started with a new record; prices were 21.1% higher in January than one year before. The highest ever average price of EUR 446,000 was reached in August. Subsequently, prices fell to an average of EUR 401,000 in December. However, the price increase was still 2.7% y-o-y in that month. The four major cities in the Netherlands showed a more subdued price development of only 0.1% y-o-y. In the capital, Amsterdam, the average price fell by 5% over 2022.

There are several reasons for this price development. One was the uncertainties caused by the political conflict in Ukraine and the subsequent rise in energy prices and reduced economic growth, which led to a drop in consumer confidence and potential home buyers adopting a wait-and-see attitude. Another reason was the rise in mortgage interest rates, which immediately resulted in lower maximum mortgages (which are limited by law based on the interest rate and household income). Next, inflation, driven by sharply increased energy costs, also affected the number of total transactions.

The impact of rising energy costs is clearly reflected in the price development for houses with different levels of energy efficiency. The average prices of homes with a red energy label (D, E, F, G) fell further than homes with a green energy label (A, B and C). The most energy-efficient homes (A) hardly dropped at all.

Fewer homes were bought in 2022 (193,000) than in 2021 (226,000). During the year, the yearly difference increased from -12% to -20%, but then fell to -11%. Experts expect that a tipping point will be reached in 2023 and that more homes will be sold than in 2022.

FIRST TIME BUYERS (FTB) AND INVESTORS

In recent years, national and municipal policies have discouraged the purchase of homes for rental. Municipalities can impose a ban on purchases of properties intended to be for rental use below a certain value, in order to allow first-time buyers to access the market. Specifically, in Q3 and Q4 small private landlords sold more homes than there were bought. FTBs benefitted from this, buying up to 60% of these homes. These homes tend to be of lower energy quality, but FTB can apply for a subsidy for sustainability investments when purchasing.

MORTGAGE MARKETS

MARKET DYNAMICS

2022 proved to be a year of extremes for the Dutch mortgage market. Mortgage interest rates started the year at historical lows with the rate for a 10 year fixed-rate loan at around 1.3% before rapidly increasing and ultimately ending the year at 4.3%. Rates for the 20 year and 30 year fixings more than doubled as well. The unprecedented rise in mortgage rates impacted the market in a number of ways. Initially, increasing interest rates triggered a massive wave of refinancing activity as borrowers wanted to lock in still low rates before they increased even further. This 'last round' effect drove mortgage application volumes (from Hypotheken Data Netwerk) up 37.3% y-o-y in Q1. However, with refinancing volumes collapsing in Q2 and house purchase volumes gradually declining from Q2 onwards total mortgage origination fell sharply. In the last quarter of the year, mortgage application volumes were down 52.6% y-o-y. Application volumes in 2022 were down 12.1% y-o-y to EUR 130.3 bn, driven by refinancings (-35.5% y-o-y) and subsequent buyers (-6.7% y-o-y) whilst first-time buyers were the relative beneficiaries with only a 1.3% y-o-y decline. Finally, the category Other (e.g. further advances) rose by 29.9% but this is only a small part of the overall market (EUR 11.5 bn).

The change in the interest rate environment also resulted in different kinds of mortgages being originated. Initially, affordability worsened significantly, driving borrowers to prefer shorter fixed-rate periods with lower interest rates. The share of new applications with 10 year fixed rates rose from 20% to 55%, at the expense of 20 year and 30 year fixings which fell from 75% to 25% of the total. Additionally, fixings below 10 years also gained in popularity.

Secondly, interest-only originations dropped rapidly last year as IO is less attractive at higher rates and refinancing activity that typically features IO parts declined.

Lastly, in the house purchase segment, the market share of guaranteed Nationale Hypotheek Garantie (NHG) mortgages rose markedly as the lower interest rate for NHG, reduced attractiveness of IO (which is not possible with NHG) and economic uncertainty made NHG more attractive. The share of NHG mortgages rose from 18.7% in January to 39.2% in December, first-time buyers in particular making use of NHG much more (up by 26 pps).

The average LTV for new mortgage applications continued to decline in 2022 to 55.4%, down from 61.8% in 2021 and 68.5% in 2020. For applications for the purchase of a house, the decrease was less pronounced at 75.9%, from 79.6% in 2021 and 83% in 2020, and driven by stretched affordability requiring greater use of own equity. Similarly, average LTI ratios declined to 3.21x after being generally stable the last few years (around 3.55x in 2021/20). For house purchase loans, the LTI dropped to 4.21x, from 4.43x in 2021 and back to 2020 levels. Overall, mortgage applications at the end of 2022 had a markedly different and lower risk profile (shorter fixed-rate periods, less IO, more NHG, lower LTVs/LTIs) than those at the start of the year.

NON-MARKET LED INITIATIVES

There were no major regulatory or fiscal changes in 2022, with only the statutory underwriting norms having changed. The DTI rules were tightened slightly due to higher inflation, with households able to borrow less under the assumption of stable incomes. Hence, only households with an increase in their income were able to borrow more in 2022, but this was relatively limited to increases between roughly EUR 5,000- EUR 8,000 depending on income.
The LTV remained capped at 100% (106% when financing energy saving measures). Meanwhile, the deductibility of interest payments from taxable income continued to be reduced as planned to 40% in 2022, and as of 2023, the maximum deduction rate will be kept stable at 37.05%. The effects of this change are limited given the small ~3% reduction and the fact the rate has been reduced already the past couple of years. Finally, for NHG loans, the house price limit was raised to EUR 355,000, from EUR 325,000, so more properties were eligible for NHG, particularly later in the year as house prices declined relatively rapidly. This, combined with a lower guarantee fee of 0.6% (0.7% before), likely contributed to the increased share of NHG in new mortgage applications.

MORTGAGE FUNDING

The mortgage lending landscape is diverse. New originations came from banks, third-party originators, insurers, foreign parties and others. Banks use various sources of funding but depend heavily on customer deposits (over 60% on average), followed by wholesale funding such as secured and unsecured debt. Wholesale funding was slightly higher due to some (early) TLTRO replacement despite continued strong growth in deposits, tightening credit conditions and a slowing housing market reducing funding needs. Covered bonds remain the preferred wholesale funding tool for mortgage portfolios due to favourable funding costs and the good asset-liability match whilst securitisation is generally not used. At the end of 2022, Dutch banks' total amount of outstanding non-retained EUR benchmark covered bonds equalled EUR 66.6 bn as issuance rose by more than EUR 2 bn to EUR 9.75 bn in 2022, with net supply of EUR 4.5 bn. For non-banks, mortgage funding is diverse. Insurers invest for their own book whilst third-party originators are typically funded by institutional investors. Meanwhile, a number of small, non-bank lenders are funded by a combination of bank warehouse facilities, whole loan funding and Prime RMBS, though the latter saw little issuance in 2022 due to market disruptions and wide spread levels.

	NETHERLANDS 2021	NETHERLANDS 2022	EU 27 2022
MACROECONOMIC VARIABLES			
Real GDP growth (%) (1)	4.9	4.5	3.5
Unemployment Rate (LSF), annual average (%) (1)	4.2	3.5	6.2
HICP inflation (%) (1)	2.8	11.6	9.2
HOUSING MARKET			
Owner occupation rate (%) (1)	70.1	70.6	69.1
Gross Fixed Investment in Housing (annual change)(1)	3.3	0.7	1.5
Building Permits (2015=100) (2)	136.4	116.0	125.8
House Price Index - country (2015=100) (2)	163.4	185.6	164.6*
House Price Index - capital (2015=100) (2)	180.2	200.1	163.8*
Nominal house price growth (%) (2)	15.2	13.6	10.6*
MORTGAGE MARKET			
Outstanding Residential Loans (mn EUR) (2)	785,477	813,300	6,743,197
Outstanding Residential Loans per capita over 18 (EUR) (2)	55,442	56,915	18,433
Outstanding Residential Loans to disposable income ratio (%) (2)	178.6	178.4	71.5
Gross residential lending, annual growth (%) (2)	17.4	-5.6	-6.5
Typical mortgage rate, annual average (%) (2)	1.7	n/a	3.1

* Please note that this value is the simple average of the available values in 2022.

Sources:
(1) Eurostat
(2) European Mortgage Federation - Hypostat 2023, Statistical Tables.

NETHERLANDS FACT TABLE

Which entities can issue mortgage loans in your country?	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.
What is the market share of new mortgage issuances between these entities?	Not available
Which entities hold what proportion of outstanding mortgage loans in your country?	Not available
What is the typical LTV ratio on residential mortgage loans in your country?	Maximum LTV in 2022 is 100% (106% when financing energy saving measures). The average LTV for all new mortgage applications at HDN in 2022 was 55.4%, and 75.9% for house purchase mortgage loans.
How is the distinction made between loans for residential and non-residential purposes in your country?	A mortgage is registered at the Kadaster (Land Registry and Mapping Agency). At the time of registration of the mortgage, it must be specified whether a piece of land or object is meant for residential purposes.
What is/are the most common mortgage product(s) in your country?	Annuity and interest-only.
What is the typical/ average maturity for a mortgage in your country?	30 years.
What is/are the most common ways to fund mortgage lending in your country?	Deposits and wholesale funding.
What is the level of costs associated with house purchase in your country (taxes and other transaction costs)?	2% taxes; 4% other transaction costs (i.e. notary; real estate agent; taxation).
What is the level (if any) of government subsidies for house purchases in your country?	There is a guarantee fund, the Nationale Hypotheek Garantie (NHG). For mortgages lower than EUR 355,000 and meeting certain conditions, the NHG guarantees the repayment of the remaining mortgage debt in case of foreclosure (again subject to certain conditions).

Poland

By Agnieszka Nierodka, Polish Bank Association

IN A NUTSHELL

- → High inflation remains the main challenge for the economy.
- → Rising interest rates caused a significant reduction in mortgage availability.
- → A record number of apartments were completed but with a sharp decline in new construction starts.
- → Real estate prices continue to rise, but at a slower pace.
- → A new housing program planned for 2023 is expected to revive demand in the market and could further boost prices.

MACROECONOMIC OVERVIEW

High inflation and the results of the energy crisis had the greatest impact on the economy. Intense growth in HICP inflation began in mid-2021 and in 2022 reached double-digit rates not seen in 20 years. Average annual HICP inflation was 13.2%, and at the end of the year it was 15.3%.

To some extent, the increase in inflation was caused by the energy crisis, which quickly translated into an increase in producer prices – which exceeded 30%. Price increases began to spread rapidly throughout the economy, extending to the service sector, which also led to an intensive increase in core inflation to the highest rates since records began - at the end of the year, core inflation reached 15% y-o-y.

Persistent inflationary tensions resulted in a decline in GDP growth and a series of interest rate hikes. GDP is being driven by domestic demand - despite a significant influx of refugees - the pace of retail sales began to decline strongly in the second half of 2022. As a result, despite good economic growth in 2021 and early 2022 – GDP growth dropped to just 0.6% y-o-y in the last quarter of 2022. In response to the rapid increase in inflation, the National Bank of Poland (NBP) continued the series of increases in the benchmark interest rate started in 2021. The base rate was raised by 5 pps to 6.75%. Although this is the highest level of the reference rate since 2002, it remains below the inflation rate.

LOOKING AHEAD

The relaxation of the Financial Supervision Authority (KNF) recommendation on the interest rate buffer for calculating creditworthiness - from 500 bps to 250 bps - from February 2023, has contributed to some recovery in demand in the loan market.

In addition, from July 2023, a new mortgage subsidy program is to start. As part of it, it will be possible to obtain a "2% Safe Credit". Those who obtain, as defined below, will for 10 years receive government subsidies that reduce instalments as if the interest rate were 2% plus the bank's margin. Preferential credit will be available for an amount of no more than PLN 500,000 in the case of a single and for a maximum of PLN 600,000 for spouses or people raising at least 1 child. The subsidized loan will be available to a person up to the age of 45 and only for the purchase or construction of the first-ever apartment or house.

The second element of the program is to a special savings account called "Housing Account." It will pay subsidies to people putting money aside to buy an apartment or house. Payments to the account must be made monthly for a period of 3 to 10 years. The subsidy for a given year will be paid if at least 11 payments of not less than PLN 500 each (PLN 6,000 per year) are made during the year. The premium will be paid each year equal to the greater of inflation and of the change in price of 1 sqm of the usable floor area of a residential building.

HOUSING MARKETS

Developers have begun to prepare for a fall in demand with the number of new starts reducing from the beginning of the year. In addition, as of July 2022, additional costs were imposed on developers, i.e. the obligation to contribute to the Developer Guarantee Fund.

The reduction of construction was also caused by the Russian invasion of Ukraine, which has i.a. affected the availability of construction labor (esp. in the first half of the year).

In 2022, 238,600 apartments and houses were completed, the most in over 40 years, mainly due to construction started in 2021 and the acceleration of work due to the introduction of the Developer Guarantee Fund in July 2022. In terms of construction started in 2022, there was an unprecedented slump. The number of housing starts fell by 27.8% y-o-y and the number of building permits issued dropped by 26.5% y-o-y.

Prices continued to grow rapidly despite tightening credit terms, demand was sustained by households that viewed property purchases to escape inflation.
In relation to 2021, the largest increases in the yearly average transaction price of flats were recorded in:

- Primary market: Białystok: 25%, Zielona Góra: 23.5%, Szczecin: 22.9% (Warsaw: 14.3%)
- Secondary market: Zielona Góra: 19.1%, Szczecin: 18.1%, Białystok: 18.2% (Warsaw: 7.7%)

MORTGAGE MARKETS

Due to the successive interest rate hikes initiated from October 2021, the entire year of 2022 was marked by a decline in the availability of home loans. The situation was exacerbated by the introduction of the KNF recommendation from March 2022 to apply a 500 bps interest rate buffer in the creditworthiness process. As a result, since mid-2022, not only was there a decline in lending and total loans outstanding as due to the increase in lending rates pre-payments increased.
In particular, this was facilitated by the introduction of the so-called "credit vacations" from August 2022, which gave consumers with PLN mortgages the opportunity to suspend repayments of 4 loan instalments in the second half of 2022 and 4 instalments in 2023. Participation in credit vacations was around 71% of eligible customers and some customers used the deferred installment amount to prepay the loan principal, thus reducing the amount of total debt.

The number of active home loan contracts declined over 2022 by more than 182,000 loans, to 2,366,000, and the value of the mortgage portfolio decreased by PLN 15.2bn, to PLN 496 bn.

Banks issued 126 thousand new home loans, down 50.75% from the record in 2021. In value terms, the result of PLN 43.6 bn achieved in 2022 was 49.11% lower than the previous year. A substantial decline in the average value of a new home loan was recorded, from a record high of PLN 353,000 at the end of the first quarter of 2022 to PLN 325,000 at the end of 2022.

MORTGAGE FUNDING

The main funding instrument for mortgage loans in Poland are deposits, followed by covered bonds. According to the covered bond law, only specialised mortgage banks are eligible to issue covered bonds in Poland. In 2022 there were 5 mortgage banks registered in Poland: mBank Hipoteczny S.A., PKO Bank Hipoteczny S.A., Pekao Bank Hipoteczny S.A, ING Bank Hipoteczny S.A., and Millennium Bank Hipoteczny S.A.

	POLAND 2021	POLAND 2022	EU 27 2022
MACROECONOMIC VARIABLES			
Real GDP growth (%) (1)	6.9	5.1	3.5
Unemployment Rate (LSF), annual average (%) (1)	3.4	2.9	6.2
HICP inflation (%) (1)	5.2	13.2	9.2
HOUSING MARKET			
Owner occupation rate (%) (1)	86.8	87.2	69.1
Gross Fixed Investment in Housing (annual change)(1)	11.5	-0.6	1.5
Building Permits (2015=100) (2)	184.3	135.6	*
House Price Index - country (2015=100) (2)	160.6	177.4	*
House Price Index - capital (2015=100) (2)	173.8	193.9	*
Nominal house price growth (%) (2)	9.6	10.4	*
MORTGAGE MARKET			
Outstanding Residential Loans (mn EUR) (2)	111,423	106,167	
Outstanding Residential Loans per capita over 18 (EUR) (2)	3,604	3,453	
Outstanding Residential Loans to disposable income ratio (%) (2)	33.2		*
Gross residential lending, annual growth (%) (2)	45.0	-43.9	
Typical mortgage rate, annual average (%) (2)	3.1	7.7	

* Please note that this value is the simple average of the available values in 2022.

Sources:
(1) Eurostat
(2) European Mortgage Federation - Hypostat 2023, Statistical Tables.

POLAND FACT TABLE

Which entities can issue mortgage loans in your country?	Banks and credit unions
What is the market share of new mortgage issuances between these entities?	No detailed data available, rough estimates: less than 1% of new lending is granted by credit unions, over 99% - by banks.
Which entities hold what proportion of outstanding mortgage loans in your country?	around 99.9% - banks; 0.1% - credit unions.
What is the typical LTV ratio on residential mortgage loans in your country?	19.55% of new loans granted in 2022 had LTVs over 80%; 52.87% - LTVs between 50-80%; 11.58% - LTVs between 30-50%; 16.01% - LTVs below 30%.
How is the distinction made between loans for residential and non-residential purposes in your country?	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.
What is/are the most common mortgage product(s) in your country?	In 2022, there was a significant change in the type of mortgages in terms of their interest rate type. While in earlier years the typical mortgage in Poland was a variable-rate mortgage, in 2022 loans with a periodically fixed interest rate began to prevail among new loans.
What is the typical/average maturity for a mortgage in your country?	Between 25 and 35 years (according to yearly data, around 64.5% of new lending belongs to that range in 2022).
What is/are the most common ways to fund mortgage lending in your country?	Banking deposits and interbank lending.
What is the level of costs associated with house purchase in your country (taxes and other transaction costs)?	• 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.
What is the level (if any) of government subsidies for house purchases in your country?	There are currently no government subsidies for house purchases in Poland.

Portugal

By Banco Montepio

IN A NUTSHELL

→ House prices increased 12.6%, after a 9.4% increase in in 2021.
→ The number of residential property transactions grew less rapidly (+1.3%; +20.5% in 2021).
→ Participation of non-residents in the real estate market continued to increase.
→ Supply remains below demand. 14,800 buildings were completed, a decrease of 3.2%.
→ The government introduced measures to increase the supply of houses.

MACROECONOMIC OVERVIEW

GGDP grew by 6.7%, the highest growth rate since 1987 (after 5.5% in 2021 and -8.3% in 2020 due to the effects of the pandemic). Overall, the GDP in 2022 is 3.3% higher than in 2019.

Domestic demand made a significant positive contribution to growth, but less than in 2021, with more private consumption but a slowdown in investment. Net external demand was positive, after being negative in 2021, with an acceleration of exports and a deceleration of imports.

Unemployment fell from 6.6% in 2021 to 6.0%. Inflation (HCPI) increased from 0.9% in 2021 to 8.1% in 2022. As elsewhere inflation spread from energy and food prices to most classes of goods and services through the year.

There was a reduction in the budget deficit, from 2.9% in 2021 to 0.4% of GDP and in the debt to GDP ratio by 11.5 pps from 125.4% to 113.9%.

The current account deficit worsened, from 0.8% of GDP to 1.3%, mainly due to the rise in prices of imported commodities, mainly energy.

The private savings rate dropped, from 9.9% to 6.1%, after the marked rise observed in 2020, to 11.9%, due to the drop in consumption caused by the pandemic.

LOOKING AHEAD

Due to the impact of the political crisis in Ukraine on prices and monetary tightening, a marked slowdown in GDP growth is expected, with the government assuming a rate of 1.8%. That rate is below forecasts published later by international organisations. The IMF projected 2.6% in May 2023, in view of the economy's performance in the 1st quarter of the year (+1.6% q-o-q and +2.5% y-o-y). The OECD predicted 2.5% in June 2023 and the European Commission 2.4% in May 2023.

Unemployment is expected to increase in 2023, with the Government predicting an average value of 6.7%. Inflation (HCPI) is, expected to decline in 2023, but continuing at high levels, as the Government foresees an average value of 5.1% in 2023.

The normalisation of monetary policy, inflationary pressures, the phasing out of public support to families and companies and end of moratorium programs, in line with European requirements, will be relevant challenges in 2023, as they contribute to the deterioration of the financial situation of families and companies, increasing the number of insolvencies in some sectors of activity.

As uncertainty remains high, growth prospects have downward risks (and inflation upward risks), naturally being greatly affected by the duration of the crisis in Ukraine, the respective impact on financial markets, and economic policy, particularly the normalisation of monetary policy observed throughout 2022, which is expected to continue during 2023.

HOUSING MARKETS

According to the analysis carried out in the Financial Stability Report (FSR) of November 2022 by the Bank of Portugal, prices in the residential real estate market increased more rapidly in 2022. According to Statistics Portugal, house prices increased 12.6%, 3.2 pps above the previous year. The increase for existing dwellings (13.9%) outpaced for new dwellings (8.7%). House prices were again at historic maximum levels, having more than doubled since the beginning of 2015 and reinforced belief in overvaluation.

The number of residential property transactions remained grew at a slower rate. According to Statistics Portugal, 167,900 dwellings were transacted, 1.3% more than in 2021, (165,682, in turn +20.5% from the previous year). The 1.3% growth was the lowest growth since 2012 (except for the pandemic effected 2020). In value, transacted dwellings totalled EUR 31.8 bn, an increase of 13.1% over the previous year.

According to the Bank of Portugal, the participation of non-residents in the real estate market continued to increase in 2022. The Bank of Portugal expects that the fall in real income and expectations of higher interest rates will reduce demand for housing by residents. Additionally, macroeconomic and geopolitical factors will determine demand by non-residents. Also, relevant factors are the maintenance of the golden visa regime (although with limitations in terms of the place of investment), tax benefits for non-habitual residents and the recent creation of a regime for "digital nomads".

Housing supply has remained unable to respond to demand. According to Statistics Portugal, in 2022, 24,500 buildings were licensed, and 14,800 buildings were completed, an annual decrease of 3.5% and 3.2%, respectively (which in turn was +8.2% and +3.6%, relative to the previous year). Overall comparing 2022 with 2019 (pre-pandemic period), the increases were 0.7% concerning building permits and 8.1% regarding completed buildings. Licensing difficulties are compounded by disturbances in supply chains, a lack of labour and the increase in the cost of production factors. The increase in construction costs, including labour costs, may reinforce the upward trend in house prices.The economy is now less dependent on the construction sector and the exposure of the banking system, as in the sovereign debt crisis.

According to the Bank of Portugal, signs of overvaluation of residential real estate in Portugal persist. However, as they have previously said, this does not directly consider factors such as demand from non-residents and tourist activities. However, the Bank of Portugal considers that the increase in the cost of credit, could translate into slower house price growth.

In the FSR of November 2022, the Bank of Portugal considered resorting to the rental market to reduce demand for properties, moderating the growth in prices and mortgage loans. According to Statistics Portugal, in 2022, the median value of rents and the number of new lease contracts continued to increase, growing by 8.4% and 6.0%, respectively (+9.4% and +7.7%, in 2021). However, the dynamism of the rental market has remained lower than that of the housing purchase and sale market, as a result of which the rental yield – the indicator that measures the profitability of homes, which results from dividing rents by housing prices – has been down in Portugal (and in the euro area).

MORTGAGE MARKETS

New loans to households for house purchase reached the highest value since 2007, at EUR 16.2 bn, a 6% increase from 2021, according to Banco de Portugal. The average rate on these new loans reached 3.24% in December 2022, more than three times the rate of a year previously. The average rate on outstanding loans rose to 2.32%, a 1.49 pps increase compared to 2021.

The stock of outstanding residential mortgage loans increased by 3.5%.

There were 168,996 borrowers involved in 117,253 new housing loan contracts, with a median amount of EUR 112,514 (56% were between EUR 50,000 and EUR 150,000).

The ratio of NPL continued to decrease, from 3.7% at year-end 2021 to 3.0% at the end of 2022. The NPL ratio for house purchase loans also decreased, from 1.6% at year-end 2021 to 1.1% at the end of 2022. The coverage ratio of the non-performing mortgage loans increased 7.7 pps, since the end of 2021, to 40.4% at the end of 2022.

To mitigate the impact of the rate rises, Banco de Portugal introduced rules for loans with an outstanding value up to EUR 300,000, between the 26th November 2022 until the end of 2023. Among those measures, banks were required to evaluate the increase in debt-service-to-income and adopt appropriate measures to prevent future higher indebtedness (e.g. increasing loan maturities or offering grace periods on capital amortisation). During this period, banks are also prohibited from charging fees on partial or total early repayment in variable interest rate contracts.

In order to meet housing demand, the government prepared the program "Mais Habitação" ("More Housing") with measures to increasing the supply of available houses, facilitate access to affordable housing in the medium term and streamline administrative licensing procedures in construction, in order to speed up the construction market.

Measures are expected to be approved and implemented periodically throughout 2023, namely (i) the requirement that banks make credit available at a fixed rate, (ii) the subsidized interest on mortgages, which will vary according to the families' income, (iii) subsidies to pay the monthly rent of the house, (iv) tax benefits to encourage the housing rental market at affordable prices, (v) commitment from the Government (as owner) to lease houses to private individuals (vi) cancelation of new licenses for local accommodation (AL), excluding rural lodging in certain municipalities, with incentives to change houses from AL to rental, (vii) stop granting new golden visas, (viii) limitation on rent values for new lease contracts and (ix) forced lease of private apartments vacant for more than 2 years. Some of these measures may reduce the appetite for investment in the housing market with an impact on houses sales.

The Government estimated a total cost of EUR 900 mn for this package, excluding, among other expenditures, the value of the housing repairs or purchases to be made.

MORTGAGE FUNDING

The banking system's liquidity position remained comfortable, with a loan-to-deposit ratio of 78.2% at the end of 2022, decreasing from 81.1% and 84.7% at the end of 2021 and 2020, respectively, due to growth in deposits.

The liquidity coverage ratio was 229.2%, decreasing from 260.0% at the end of 2021 and from 245.9% in 2020, while highly liquid assets were reduced from 27.2% at the end of 2021 to 25.2% at the end of 2022. Funding from central banks represented 3.6% of total assets in 2022 (9.2% at the end of 2021 and 7.7% at the end of 2020).

Both among Portuguese and European Economic Area (EEA) banks, the weight of liquidity in total assets has been rising in recent years. However, compared to December 2021, this weight decreased during the 2nd half of 2022 by 1.2 pps in the EEA and 0.7 pps in Portugal, to 14% and 15%, respectively, in December 2022.

Despite an increase in the weight of loans on total assets during the 2nd half of 2022 (+2.5 pps since June 2022), Portuguese banks have considerably decreased this weight in recent years (58% in December 2022 vs 66% in September 2014).

Historically, Portugal has had a higher weight of debt securities on assets than the EEA average, but this disparity has narrowed since the second half of 2020, with this weight in Portugal reaching 20.1% in December 2022, compared to 11.6% in the EEA, while the gap between these figures has shrunk from 11 to 9 pps.

	PORTUGAL 2021	PORTUGAL 2022	EU 27 2022
MACROECONOMIC VARIABLES			
Real GDP growth (%) (1)	5.5	6.7	3.5
Unemployment Rate (LSF), annual average (%) (1)	6.6	6.0	6.2
HICP inflation (%) (1)	0.9	8.1	9.2
HOUSING MARKET			
Owner occupation rate (%) (1)	78.3	77.8	69.1
Gross Fixed Investment in Housing (annual change)(1)	8.9	3.6	1.5
Building Permits (2015=100) (2)	343.5	366.8	125.8
House Price Index - country (2015=100) (2)	172.8	192.4	164.6*
House Price Index - capital (2015=100) (2)	n/a	n/a	163.8*
Nominal house price growth (%) (2)	11.6	11.3	10.6*
MORTGAGE MARKET			
Outstanding Residential Loans (mn EUR) (2)	98,149	101,700	6,743,197
Outstanding Residential Loans per capita over 18 (EUR) (2)	11,417	11,668	18,433
Outstanding Residential Loans to disposable income ratio (%) (2)	64.4	62.2	71.5
Gross residential lending, annual growth (%) (2)	34.1	5.8	-6.5
Typical mortgage rate, annual average (%) (2)	0.8	3.2	3.1

* Please note that this value is the simple average of the available values in 2022.

Sources:
(1) Eurostat
(2) European Mortgage Federation – Hypostat 2023, Statistical Tables.

PORTUGAL FACT TABLE

Which entities can issue mortgage loans in your country?	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).
What is the market share of new mortgage issuances between these entities?	In 2022, the largest credit institutions are expected to have continued representing the bulk of new mortgage production, with market shares generally reflecting the current market structure of the Portuguese banking sector (as per question three).
Which entities hold what proportion of outstanding mortgage loans in your country?	The seven largest institutions in Portugal are CGD, Santander Totta, Millennium BCP, BPI, Novo Banco, Banco Montepio and Crédito Agricola, which hold market shares ranging from c.4% of Crédito Agrícola to c.25% of CGD as of December 2022. *Source: Annual Reports; Banco de Portugal (Monetary and Financial Statistics).*
What is the typical LTV ratio on residential mortgage loans in your country?	Since 1 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. In 2022, the bulk of new credit operations (99.7%) had an LTV ratio equal or below 90% (53,5% with LTV ≤80% and 46,2% with 80%<LTV≤90%). *Source: Banco de Portugal (Macroprudential measure within the legal framework of credit for consumers).*
How is the distinction made between loans for residential and non-residential purposes in your country?	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).*
What is/are the most common mortgage product(s) in your country?	The most common mortgage products are written with variable interest rate indexed to Euribor rate. As of December 2022, 89.6% of the mortgage contracts portfolio were written with variable interest rate, 6.4% with mixed rate and 4% with flat rate. Of the contracts written with variable interest rate, 43% were indexed to Euribor 12m, 32.4% to Euribor 6m, 22.2% to Euribor 3m and only 2.5% were indexed to other reference rates.
What is the typical/ average maturity for a mortgage in your country?	Mortgage loans granted in 2022 had an average maturity of 30.7 years (32.5 years in 2021), 2.8 years lower comparing to the portfolio's (33.5 years as of December 2021, latest available data). *Source: Banco de Portugal (Retail Banking Markets Monitoring Report 2021; Recommendation on new credit agreements for consumers – progress report 1st quarter 2023).*
What is/are the most common ways to fund mortgage lending in your country?	From 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 78.2% as of December 2022). From the point of view of customers, commercial banks are the most common providers of mortgage. *Source: Banco de Portugal, Portuguese Banking System: latest developments, 4th quarter 2022.*

What is the level of costs associated with house purchase in your country (taxes and other transaction costs)?	There are bureaucratic charges related with the necessary procedures (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). In purchases through loans, banks usually charge commissions related to the credit process (study and opening), which often include asset-evaluation costs.
What is the level (if any) of government subsidies for house purchases in your country?	Since September 2012 it is not possible to hire mortgages loans with a subsidised system scheme. Currently there are special conditions for disabled people with a disability grade greater than 60% and for family households in very difficult economic situation (Law 58/2012 of Nov/9). Following the increase of reference interest rates, a new decree law (Decree Law 20-B/2023 of Mar/23) entered into force in March 2023 that aims to concede temporary support to households with mortgage loans contracted before 15 March 2023. Borrowers eligible to benefit from this support may have temporary interest subsidy when the index of their credit contract is equal or greater than a threshold of 3%. This subsidy will be 75 or 50% (depending on the applicant household's income level) of the value of the interest corresponding to the difference between the index value determined contractually and the index threshold (3% or higher). Are eligible for this subsidy the households and contracts that meet the following conditions: (I) loans contracted before 15 March 2023; (II) have an initial contracted amount equal to or less than 250,000€; (III) are written with a variable interest rate regime or, in the case of mixed interest rate contracts, are in a variable interest rate period; (IV) have no overdue payments; (V) have a debt-service-to-income rate equal to or greater than 35% of their annual income (considering only the respective mortgage loan payments); (VI) have an annual income equal to or below 38,632€ (by reference to the last annual tax return) or, if above, that demonstrate that they have suffered a drop in income of more than 20% that places them below the limit of 38,632€; (VII) have no financial assets (which include deposits, financial instruments, capitalization insurance or savings or treasury certificates) with a total value greater than 29,786€ (by reference to the social support index). This support will be granted until December 2023.

Romania

By Cristian Dragoș (Alpha Bank Romania), Ella Kallai (Alpha Bank Romania), Ștefan Dina (Romanian Association of Banks)

IN A NUTSHELL

→ House completion exceeded pre-pandemic level in some regions.
→ Price disparities between old and new dwellings increased.
→ House price inflation was lower than consumer price inflation.
→ The number of transactions declined.

MACROECONOMIC OVERVIEW

GDP increased by 4.7% y-o-y. Consumption and investments acted as the main engines of growth: private consumption increased by 5.5%, while gross capital formation was up by 4.9%, the decline of inventories moderated the advance of gross fixed capital formation. Growth of gross fixed assets was driven by an expansion in the construction sector, reflecting a 16% contribution of assets incorporated in dwellings, while the rest representing assets incorporated in other buildings and structures.

The unemployment rate remained flat at 5.6%. Annual average inflation accelerated to 12% from 4.1% in 2021, fuelled by fast rising energy and food prices.

LOOKING AHEAD

As 2023 is characterised by tightened monetary policy at home and abroad, economic growth is expected to slow. Expensive lending and inflation outside the central bank's target (2.5%; ±1%), although declining, will hamper demand, including for housing.

HOUSING MARKETS

Housing completions increased by 2.7% y-o-y with sizeable disparities across regions. The regions with the largest increases, which comprised 30% of total finished dwellings, were South-East (+20% y-o-y), South-West (+14.2%) and North-West (+13.3% y-o-y). The number of finished dwellings across the first two regions accelerated, while housing completions in the third area increased after stagnating in 2021 but remained below their pre-pandemic level. The number of residential construction licenses issued declined by 14.9% y-o-y, signaling a forthcoming house completion leveling off. All regions posted lower completions, with above average falls in Bucharest-Ilfov (-22% y-o-y) and West (-19% y-o-y).

Residential property prices increased by 7.2% y-o-y compared to 4.4% in 2021. Prices of existing dwellings rose by 5.2% and of new dwellings by 11.3% from 1.6% in 2021. Contrary to 2021, prices of apartments grew at a slower pace in Bucharest (+3.2%) than outside (+6.2%). Prices of houses increased more slowly in urban areas (6.1%) than rural areas (8.7%). It is possible that the rising trend towards working from home changed individuals' preferences for living conditions, focusing now on larger dwellings outside urban areas. Such preference shifts and increasing interest rates on housing loans might explain the continuous appreciation of the average mortgage size (+6.2%) in 2022. Higher interest rates and the increased threshold for reduced VAT (5%) on purchases of dwellings (from ~ EUR 91,000 to ~ EUR 140,000) led to a decline in the number of transactions in 2022 (-1.3% y-o-y).

MORTGAGE MARKET

Outstanding housing loans (in domestic currency equivalent) increased by 5.4% in 2022, reaching 7.5% of GDP. However, this was a slowdown compared to 2021, when the total market portfolio advanced by 12.9%. When the total market portfolio advanced by 12.9%. Growth was fuelled entirely by fast rising local-currency denominated housing loans since foreign currency denominated stock declined by 9.3%. Hence, the currency structure of outstanding volumes moved further in favour of local currency, which are now 84% of total outstanding vs. 81% in 2021, although domestic currency-borrowing became more expensive. The average interest rate charged for new local currency denominated housing loans increased from 4% in December 2021 to 7.4% in December 2022. In comparison in euro the average interest rate for new housing loans was 5.3% at year-end compared to 3% one year previously. However, access to housing loans in foreign currency has been limited since January 2019, by a regulation setting the maximum monthly debt service-to-income ratio to 20% for foreign currency loans, against 40% for domestic currency loans.

According to the central bank's Financial Stability Report issued in December 2022, the NPL ratio for housing loans fell to 1.39% (Sep 2022), a 0.13pps annual decline. The NPL ratio for borrowers using a facility established by the government that suspends loan payment obligations (motivated by the current context of price hikes, especially for food and utilities) stood at 7.5% in September 2022. This new loan moratorium was not as popular as the pandemic one with applications for only 0.1% of the volume of housing loans compared to 9% in 2020. Loans granted under the "Noua Casa" governmental program still account for a large share of the housing loan stock although decreasing, they were 9.7% of new loans over the past 12 months and 33% of the total. Their NPL ratio for these loans was 0.8%.

Beginning with 1 April 2022 a new regulation was enforced reducing the LTV cap by 10 pps (in case of local currency loans from 85% to 75%, and for EUR loans from 75% to 65%) for loans to households for non-owner occupied properties in order to mitigate vulnerabilities caused by the growth of this sector and improve the resilience of debtors and lenders in case of adverse developments.

According to the Bank Lending Surveys, the LTV for new standard housing loans to households averaged 68% vs. 72% in 2021. The average level of indebtedness slightly increased for new loans to 35% in Q4 2022 from 33% in 2021 but remained flat for the total housing loan portfolio at 42%.

Due to their size and interest rate types, housing loans are more sensitive to the current high interest rate environment. Moreover, a significant share of the flow of housing loans (60% of new loans granted in 2022) are exposed to interest rate increases, being granted at variable interest rate.

NON-MARKET LED INITIATIVES

A new public moratorium for private individuals and companies impacted by the energy crisis and war in Ukraine was introduced allowing clients to request the suspension of repayments under the following conditions:

- Up to 9 months payment holiday – cumulative period, including payment holiday granted in 2021, if the case;
- Eligible loans – credit facilities contracted before April 30, 2022;
- No past due amounts registered in the last 6 months before suspension request and no past due amounts on date of the client's request for suspension;
- The request must be registered by August 29, 2022.

At the end of September 2021, loans subject to EBA compliant moratoria granted to households amounted to ~EUR 3 bn, 9.2% of the total outstanding households' loans.

MORTGAGE FUNDING

Deposits are the primary funding source for mortgages. The growth in customer deposits was less than the growth of private sector for the second consecutive year, leading to an increase of loan-to-deposits ratio to 0.71x vs. 0.68x in 2021. Residents' deposits (in RON equivalent) increased at a 7.1% annual pace, slowing from 13.9% in 2021, reflecting a reduced saving rate for households, which generated 55% of 2022 total deposit growth. Banks' external financing trend reversed in 2022 and started increasing as banks' share of foreign liabilities relative to total liabilities rose to 6.9% in December 2022 from 5.6%.

GREEN FUNDING

Sensitive to the impact of climate change and rising energy costs, households interest in green housing loans grew. About 31% of the housing loans granted in Sep 2022 were green loans targeting green buildings or increasing energy efficiency. The green lending market is evolving with credit institutions assuming their role as major contributors to raising public awareness, offering banking products and services compliant with the new environmental, social and governance (ESG) policies.

Banks have continued issuing green bonds aimed to finance green and sustainable residential and commercial projects.

	ROMANIA 2021	ROMANIA 2022	EU 27 2022
MACROECONOMIC VARIABLES			
Real GDP growth (%) (1)	5.8	4.7	3.5
Unemployment Rate (LSF), annual average (%) (1)	5.6	5.6	6.2
HICP inflation (%) (1)	4.1	12.0	9.2
HOUSING MARKET			
Owner occupation rate (%) (1)	95.3	94.8	69.1
Gross Fixed Investment in Housing (annual change)(1)	5.6	10.5	1.5
Building Permits (2015=100) (2)	131.1	111.6	125.8
House Price Index - country (2015=100) (2)	134.1	143.7	164.6*
House Price Index - capital (2015=100) (2)	138.0	142.4	163.8*
Nominal house price growth (%) (2)	7.5	7.2	10.6*
MORTGAGE MARKET			
Outstanding Residential Loans (mn EUR) (2)	20,347	21,432	6,743,197
Outstanding Residential Loans per capita over 18 (EUR) (2)	1,308	1,400	18,433
Outstanding Residential Loans to disposable income ratio (%) (2)	14.9	15.5	71.5
Gross residential lending, annual growth (%) (2)	57.8	-2.9	-6.5
Typical mortgage rate, annual average (%) (2)	4.1	5.2	3.1

* Please note that this value is the simple average of the available values in 2022.

Sources:
(1) Eurostat
(2) European Mortgage Federation - Hypostat 2023, Statistical Tables.

[3] EBA Thematic note on moratoria and public guarantees, November 2020

[4] Growth expressed in domestic currency terms

ROMANIA FACT TABLE

Which entities can issue mortgage loans in your country?	In Romania, generally credit institutions can issue mortgage loans, with marginal input from non-bank financial institutions. Currently, there are 34 credit institutions of which are 9 foreign banks' branches. Additionally, other 65 non-bank financial institutions carry out multiple lending activities.
What is the market share of new mortgage issuances between these entities?	Banks are the main mortgage lenders, with marginal input from non-bank financial institutions.
Which entities hold what proportion of outstanding mortgage loans in your country?	Although official data is not available, top 10 banks originate most mortgage loans.
What is the typical LTV ratio on residential mortgage loans in your country?	The average LTV ratio for new loans was 68% in 2022.
How is the distinction made between loans for residential and non-residential purposes in your country?	Credit institutions grant: • mortgage loans (including loans within the "First House" Programme, renamed in 2020 in "New House" Programme), which are dedicated to residential purposes, more specifically to the acquisition or construction of houses. • consumer loans meant to address consumers' financing needs, with some of the most common product being the loan for personal needs.
What is/are the most common mortgage product(s) in your country?	Starting in 2009, loans granted under "First House" Programme have represented the main driver for mortgage lending in Romania. However, beginning with 2018, the penetration of "First House" loans in the new mortgage sales volumes dropped below 50%. In 2020, the "First House" Programme became the "New House" Programme. One of the main adjustments regards the increase of the maximum loan size for mortgages used to purchase new dwellings (not older than 5 years comparing reception date vs credit request date) to EUR 140,000. Moreover, maximum LTV ratio is set at 85% and the state guarantee increased to 60% as compared with maximum LTV of 95% and state guarantee of 50% for old residential buildings or new residential buildings with prices below EUR 70,000.
What is the typical/ average maturity for a mortgage in your country?	The maximum lending period for loans granted under the "New House" Programme is 30 years. As for standard mortgage loans, other than the ones mentioned above, the maximum lending period stands at 35 years.
What is/are the most common ways to fund mortgage lending in your country?	The loan-to-deposit ratio stands at approximately 70 % (Source: NBR, Dec. 2021). Thus, credit institutions mainly use funds attracted from clients to grant loans. Credit institutions have gradually reduced their dependence on 'parent' banks by increasing customer deposits.
What is the level of costs associated with house purchase in your country (taxes and other transaction costs)?	A series of costs are applicable to mortgage loans. The most important ones include: • 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 several 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 secured mortgage loans, credit institutions require home insurance, which depends on the value of the home, the maturity, the types of insured risks, etc.
What is the level (if any) of government subsidies for house purchases in your country?	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 "New House" Programme supports young people who want to purchase their first home via Romanian Government guarantees, the main benefits for the clients being a lower interest rate and down payment. 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 Bašťák, Slovenská sporiteľňa

IN A NUTSHELL

- → GDP grew by 1.7%, while inflation peaked at 12.1%.
- → Real estate prices showed mild correction after exceptional growth.
- → Mortgage rates went up from 1% to 4% in just 1.5 year.
- → Asset quality remains solid despite economic turbulences.
- → Loan-to-deposit ratio of the sector above 100% is successfully mitigated by covered bonds.

MACROECONOMIC OVERVIEW

Household consumption remained strong supported by pandemic period excess savings. However, high inflation gradually started to affect real expenditures of households negatively, as potential of savings was seemingly fully utilized in the second half of 2022. In addition, investment activity in the private sector was dampened due to elevated uncertainty, weakening demand and rising costs. As a result, real GDP growth reached 1.7% in 2022.

The labour market remained in a good shape with the average unemployment rate falling to 6.1% in 2022, the lowest since the outbreak of the pandemic. Nominal wage growth also remained robust at almost 8% with even swifter growth expected in the coming year.

The pandemic and subsequent energy crisis resulting from the political crisis in the Ukraine were two external shocks taking inflation to 12.1%. Food together with energy and building materials prices, drove inflation up. In addition, inflationary pressures from energy spilled over into prices of a broad portfolio of other goods and services. Energy prices for households were capped at rather favourable levels with only slight increase.

The public debt ratio, consistently well below the Euro area average, declined due to the high inflation below the Maastricht limit of 60% to 58%.

Household indebtedness continued to increase, although only slightly. The growth of retail loans has been gradually slowing while nominal GDP increased at high single digit pace. The ratio of retail loans to GDP reached 46% for 2022, around 0.5 pps above the previous year but well above peer CEE countries. Stabilization or even some decline is expected in the coming quarters.

HOUSING MARKET

Slovakia has the second highest homeownership rate in Europe (behind Romania) with 91.7% of the population owning houses, exceeding by far the EU average of around 70%.

In the Bratislava region, which has the country's most expensive housing, residential property prices rose by 11.7% to EUR 3,342 per m2, after rising by 21.2% a year earlier. In the last quarter it declined by 3%. On an annual basis, prices in other regions increased at an even higher pace in 2022 despite significant deceleration in the second half:

- The most extreme growth was in Trnava region with 26% y-o-y inflation (to 1,938 per m2)
- Four regions (Presov, Banska Bystrica, Kosice, and Trencin) experienced growth above 20%
- Prices in the two remaining regions (Nitra and Zilina) went up by 16% and 13%, respectively

Price changes over the year were driven almost purely by the increasing interest rates on mortgages. Prices surged on the back of enormous demand caused by swift adjustment of mortgage rates to expected ECB hikes as clients wanted to fix their instalments at still favourable levels. Since the supply did not match the demand, prices grew rapidly. The quarterly changes in some regions reached double-digits in Q1 and Q2 2022 and annualised increases as of June 2022 ranged from 20% to almost 40% in the fastest growing region (in Presov).

The number of new building permits and housing starts as well as completions declined y-o-y. Housing starts fell by 16% compared to the peak of 2021, below the 5-year average. A similar drop was seen also in new permits, suggesting lagging supply in the years to come. The number of completions has been decreasing for three years already but decreased more slowly with just a single-digit drop.

To some extent this is due to the time-consuming and bureaucratic process of obtaining a building permit reducing the flexibility of developers to react to demand swings, to some extent it is due to developers being more cautious, anticipating a demand decline.

As a result, affordability of housing fell substantially after years of favourable conditions. Financing is now much more costly as interest rates on new mortgages went up significantly and real estate prices soared in the recent years. High inflation started to weigh on household budgets as real wages declined by more than 4% in 2022. The situation should improve relatively soon as growth of nominal wages sped up, real estate prices showed certain correction and ECB's tightening will probably not continue in 2024.

MORTGAGE MARKET

Although the annual growth in mortgages outstanding decelerated in 2022, it still increased by 10% over the year. The volume of new mortgages increased rapidly amid increasing rates and a pre-loading effect. Naturally, as mortgage rates reached the higher levels, demand fell significantly. For illustration, volume of new mortgages granted was two thirds lower in December than in March.

Higher rates also caused lower refinancing activity. The market was well-known for popularity of both internal (renegotiation within a bank) and external (between two banks) refinancing. It makes less and less sense to do so with higher interest rates now.

After years of gradual declines, average interest rate on new mortgages rose abruptly: the average went from just below 1% in December 2021 to more than

3.5% in December 2022. The increase has continued in 2023 as well. While Slovaks enjoyed the third lowest rates in the Eurozone in 2021, they were near the middle of the ranking at the end of 2022.
The market has been dominated by relatively short interest rate fixed periods (3 to 5 years) for several years which usually made up approximately 90% of the new production. The share of longer fixings (above 5 years) increased, due to anticipated rates hikes, to almost one fifth of new production in 2021 and to 40% in the first months of 2022. Once the situation calmed, the market returned to usual setting with the vast majority of new mortgages with a fixed period of 3 to 5 years. Variable rate mortgages are virtually non-existent.

The average maturity of new mortgage contracts was around 26 years. More than a half of new housing loans (volume wise) in 2022 were provided with the maximum possible maturity of 30 years and around 16% chose a maturity of 20 years or less. The trend of stretching the maturity has been present already for several years.

The volume of NPLs declined further in 2022, although only slightly. Nevertheless, combined with the continuous growth of total lending, the NPL ratio fell from around 1.2% in 2021 to less than 1.1% in 2022. The asset quality deterioration has not materialized in 2023 despite the worsening economic situation.
A prominent feature of the Slovak mortgage market is a high share of new loans intermediated through financial advisors. In 2022, around 65% of total lending volume was via such external sales network. The share was similar to the value seen a year ago. The National Bank of Slovakia (NBS) considers intermediated loans as somewhat riskier and sees intermediaries as too aggressive, pushing clients to the maximum level of indebtedness allowed.

Due to the NBS's limits on maximum LTV, the average LTV ratio has stabilized in recent years at around 70% with a slightly declining trend. The share of new loans that can have an LTV ratio between 80% and 90% is set to 20% of new production and new loans with an LTV greater than 90% are not allowed. Other measures to fight increases in household indebtedness, which are currently in place, are limits on DTI and DSTI. The former was set at 8 times 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 has to be at least 40% since mid-2020.

LOOKING AHEAD

The situation in the first half of 2023 was diametrically different compared to the previous years. Demand for mortgages was subdued, refinancing dried up and price competition does not dominate the market anymore. It is generally expected that the demand should pick up in coming quarters once interest rates stabilize or even start to decline and real estate prices recover.

MORTGAGE FUNDING

Deposits are, for banks, one main source and for the building societies, the only source of funding for their mortgage market activities. Short-term deposits and current accounts had offered a stable, low-cost source of funding for the banks and building societies for a long time. Retail deposits had virtually 0% interest rates for large commercial banks in 2022. The pandemic and subsequent economic revival as well as the political conflict in the Ukraine brought certain disruption to this. While the saving rate went up noticeably during the lockdowns, it fell to very low levels afterwards as household consumption caught up. In addition, uncertainty regarding the geopolitical situation seemingly caused a reduction of retail deposits as clients felt the need to hold cash. As a result, the annual growth of retail deposits in the banking sector came to a halt as of year-end and the loan-to-deposit ratio temporarily reached 110% in Q3.

Such high loan-to-deposit ratio is still seen as acceptable since banks can fund their lending by issuing covered bonds. Covered bonds are an attractive funding tool for Slovak banks as they are typically cheaper than senior unsecured bonds, as they are asset-backed, highly rated (triple A or slightly lower, depending on the actual over-collateralisation), therefore are perceived as lower risk by investors. TLTRO funding was successfully used by the largest banks, mostly due to positive effect on profitability rather than as a necessary source of funding. The stance was confirmed as they already repaid part of the facility after conditions changed and most probably will do so with the remaining outstanding volume at an accelerated pace.

lower, depending on the actual over-collateralisation), therefore are perceived as lower risk by investors. An updated covered bond law was introduced in January 2018 since when banks issued more than EUR 8 bn of the new covered bonds. In addition, EUR 1 bn of retained covered bonds were issued in 2020-2021 which were directly used as collateral in TLTRO transactions. TLTRO was utilised by four largest Slovak banks for a total amount of around EUR 11 bn as of year-end 2021.

	SLOVAKIA 2021	SLOVAKIA 2022	EU 27 2022
MACROECONOMIC VARIABLES			
Real GDP growth (%) (1)	4.9	1.7	3.5
Unemployment Rate (LSF), annual average (%) (1)	6.8	6.1	6.2
HICP inflation (%) (1)	2.8	12.1	9.2
HOUSING MARKET			
Owner occupation rate (%) (1)	92.9	93.0	69.1
Gross Fixed Investment in Housing (annual change)(1)	3.4	4.1	1.5
Building Permits (2015=100) (2)	129.9	108.8	125.8
House Price Index – country (2015=100) (2)	175.5	212.9	164.6*
House Price Index – capital (2015=100) (2)	166.9	198.2	163.8*
Nominal house price growth (%) (2)	23.7	21.3	10.6*
MORTGAGE MARKET			
Outstanding Residential Loans (mn EUR) (2)	37,677	41,602	6,743,197
Outstanding Residential Loans per capita over 18 (EUR) (2)	8,502	9,450	18,433
Outstanding Residential Loans to disposable income ratio (%) (2)	62.2	59.7	71.5
Gross residential lending, annual growth (%) (2)	32.3	-14.6	-6.5
Typical mortgage rate, annual average (%) (2)	1.0	1.9	3.1

* Please note that this value is the simple average of the available values in 2022.

Sources:
(1) Eurostat
(2) European Mortgage Federation – Hypostat 2023, Statistical Tables.

SLOVAKIA FACT TABLE

Which entities can issue mortgage loans in your country?	Housing finance is raised from banks, building societies and State funds with only minimum volume provided.
What is the market share of new mortgage issuances between these entities?	Majority of new mortgages is issued by commercial banks (over 95%), followed by building societies (~3-4%) and state funds contributed with just marginal volumes.
Which entities hold what proportion of outstanding mortgage loans in your country?	Banks had a market share of 94%, building societies of 6% and the state funds just 0.1%.
What is the typical LTV ratio on residential mortgage loans in your country?	In 2022, the average LTV for newly provided mortgages was about 70%. Maximum LTV ratio of 90% is possible although only up to 20% of all newly provided mortgage can have an LTV between 80% and 90%. However, the share of mortgages with LTV between 80% and 90% is just 10% of the total new production.
How is the distinction made between loans for residential and non-residential purposes in your country?	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.
What is/are the most common mortgage product(s) in your country?	Most mortgage loans taken out are loans with rates fixed for period of 3 or 5 years. First half of 2022 was specific due to increasing rates (clients wanted to have low rates guaranteed for longer periods) as popularity of rates fixation of 10+ years increased significantly. As soon as the rates started to stabilize, clients returned to the usual fixations of 3 to 5 years.
What is the typical/ average maturity for a mortgage in your country?	Average maturity of a new mortgage loan was about 26 years in 2022. Mortgage loans can have maturity of at least 4 years and maximum of 30 years. There are certain exceptions (e.g. for some Building societies' products the maximum maturity can be extended to 40 years) to these rules but these are applied only to a fraction of volumes provided.
What is/are the most common ways to fund mortgage lending in your country?	For banks, deposits are one main source and for the building societies the only source of funding for their mortgage market activities. Banks also fund their lending activities through issuance of covered bonds.
What is the level of costs associated with house purchase in your country (taxes and other transaction costs)?	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%.
What is the level (if any) of government subsidies for house purchases in your country?	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 the volume of state loans is low and conditions apply.

Slovenia

By Jelena Ćirjaković, Banka Slovenije

IN A NUTSHELL

→ Growth in house prices slowed, as demand weakened due to increased costs of living and interest costs.

→ Government measures to address lack of supply were introduced.

→ The average LTV ratio decreased to 58.5%, while the average DSTI slightly increased to 33.2%.

→ NPL has continued its downward trend to 1.5%, the lowest in over a decade.

MACROECONOMIC OVERVIEW

The economy performed well, but slowed in the second half of the year amid heightened international uncertainty related to the political crisis in Ukraine, global supply chain issues, inflation and increasing production costs.

GDP grew by 5.4% driven by growth in final consumption of households (9.1%) and gross investment (12.4%). The balance of trade slowed GDP growth (by 2.1 pps), as growth in imports surpassed that of exports due to stronger demand on domestic market. On average, exports preformed relatively well amid weakening foreign demand for goods. The services surplus rose, especially in travel – as international tourism normalised - and transport services.

Confidence was weaker, although sentiment improved slightly by year end, probably also due to government measures to mitigate high food and energy prices and ensure security of supply aimed to households and enterprises.

Consumer price inflation (HICP) was 10.8% by year end, and averaged 9.3% over the year, the highest since 1997. The largest contributions were from food and energy.

Labour market conditions remained favourable. The unemployment rate was historically low at 4.0%, 0.8 pps lower than in 2021. The growth in average gross wages slowed to 2.8% in 2022 compared to 2021 but was rising again towards year end.

The general government debt decreased from 74.5% in 2021 to 69.9%. The deficit decreased to 3.0% of GDP (4.6% in 2021), mainly due to lower expenditure on measures to mitigate the consequences of the pandemic and high nominal growth of GDP.

LOOKING AHEAD

In the beginning of 2023, domestic demand remained strong along with high employment, while economic sentiment remained above last year's final quarter. However, inflation remained high, despite a fall in energy price inflation due to capped electricity and gas prices and declining fuel prices.

According to The Institute of Macroeconomic Analysis and Development of the Republic of Slovenia (IMAD), GDP growth is forecast to slow to 1.8% in 2023. Investment growth is expected to remain moderate, while exports and private consumption may show weak growth, before picking up in the second half. Inflation is expected to gradually ease, but remain relatively high on average. Investment in buildings and constructions is expected to continue to grow, supported by government investments and EU funds, and a further increase in housing investment. In the near term, house price growth is expected to slow further due to higher interest rates and the economic slowdown.

HOUSING MARKETS

In 2022, sales of flats and family houses fell by 7.6% and with in total 12.869 units sold, it was the lowest number of transactions since 2015, excluding the pandemic in 2020. Sales fell in all regions, but sales of existing flats in Ljubljana, by 14.3%. Sales of newly-built dwellings have seen the largest fall, decreasing by 30.4%. The value of sales of existing flats and family houses increased by 3.9%.

House price growth remained high at 14.8%, compared to 11.5% in 2021 and 4.6% in 2020. Prices of existing flats in Ljubljana rose by 14.1%, and by 17.3% in the rest of Slovenia. Maribor saw the largest price increases with 19.6% y-o-y. In 2022, the house price ratio between regions, where prices are highest (Ljubljana, coastal regions and tourist areas in Gorenjska) and where they are lowest (mostly rural regions), slightly decreased.

House price growth slowed during the year (from 17.0% in Q1 to 11.6% in Q4) and along with falling demand for housing, it indicated a cyclical downturn. In the last two years, house prices rose sharply in both Ljubljana and the rest of Slovenia. By year end, house prives were higher by more than a third than before the pandemic and the previous peak in 2008.

In the recent years, the mismatch between supply and demand contributed to rising house prices. Shortage of supply of new homes is evident especially in Ljubljana and its surroundings. In the last ten years, the number of dwellings has remained almost the same at around 410 per one thousand inhabitants. Compared to 2021, the share of gross investment in dwellings in GDP increased slightly to 2.7%. Home-ownership stood at 75.4% in 2022, while unoccupied dwellings stood at around 19% in 2021.

In the last two years the number of building permits issued for residential buildings increased, by 7.3% to 3,128 in 2022 compared to 2021, the highest number in over ten years. Furthermore, construction of 5,410 new dwellings started during the year and 4,286 dwellings were completed, up by 22.3% and 6.3% respectively compared to 2021. With shortages in supply of housing, in 2022 rents increased by 19%.

The government aims to put further investments into new housing and increase construction of public rental housing in the next years.

In 2022, the value of construction of buildings put in place increased by 83.8%. As the number of people in employment was high, firms were increasingly hiring foreign workers. By the end of the year, the confidence indicator in the construction industry was 23 pps higher than the long-term average. Construction was however affected by sharply rising construction costs of materials and labour, high energy costs and shortages of skilled labour.

MORTGAGE MARKET

MARKET DYNAMICS

Total outstanding residential loans increased to EUR 8.2 bn at year end from EUR 7.5 bn a year earlier. Residential lending grew by 9.8% y-o-y (9.0% in 2021), one of the highest rates in the euro area. Residential loans remained at around 14% of GDP. New residential loans grew by 9.4%, after increasing by a third in 2020 and 2021. In the second half of the year demand for residential loans declined rapidly due to high inflation and rising interest rates.

After historic lows, interest rates increased significantly in 2022 and by year end, the average interest rate on new residential loans stood at 3.7% (3.6% for fixed rates and 3.8% for variable rates) compared to 1.7% a year earlier. Over 90% of new loans were on fixed rates, while outstanding fixed rate residential increased to 62% by year end. The average maturity of new residential loans has decreased from 18.8 years in 2021 to 18.5 years.

The average LTV for new residential loans was 58.5% at year end, down from 63.5% compared to the end of 2021. Average DSTI slightly increased to 33.2%, driven also by higher interest rates, especially in the second half of 2022.

The ratio of NPLs has continued its downward trend to 1.5 % for residential loans, 0.1 of pps less than in 2021, the lowest proportions in over a decade.

NON-MARKET LED INITIATIVES

Banka Slovenije adjusted macroprudential restrictions on household lending in 2022. The maximum LTV recommended for loans, secured by residential real estate decreased from 80% to 70% (unless purchasing, renovating or building primary property). Up to 10% of residential loans may also exceed the cap on DSTI[1]. The share of new residential loans above the recommended LTV value decreased from 10.8% in Q4 2021 to 9.1% in Q4 2022 and the share of loans with a non-compliant cap on DSTI decreased from 4.0% to 3.2% over the same period.

Furthermore, Banka Slovenije raised the countercyclical capital buffer from zero to 0.5% of the total risk exposure due to high growth in house prices and residential loans along with uncertainty in the macroeconomic environment. Banks have to meet the capital requirements for the countercyclical capital buffer by the end of 2023. In 2023, two sectoral systemic risk buffers enter into force for all retail exposures to natural persons secured by residential real estate, with a rate of 1.0%, and all other exposures to natural persons other than that at a rate of 0.5%. In 2022, the banking sector was well capitalized.

In 2022, the government adopted a Housing guarantee scheme for young people with a total amount of guarantees of EUR 300 mn per year until end of 2032. The state guarantee is for borrowers with low creditworthiness but up to 1.5 time average monthly net salary and for loans up to EUR 200,000 with a repayment period of up to 30 years. Loans, granted under the scheme are also exempt from macroprudential restrictions on household lending. By the end of 2022, only a small amount of funds has been granted.

MORTGAGE FUNDING

Deposits remained the main source of bank funding. Non-banking sector's deposits increased by 6.9% to EUR 39.8 mn, less than in 2021 (8.5%). The share of deposits in total liabilities increased to 78.6%. Household deposits increased by 7.6% to EUR 25.8 bn and corporate deposits increased by 7.9% to EUR 9.7 bn. Most of non-banking sector deposits were sight deposits (83.7%).

By the end of 2022, most banks had repaid debt to the ECB, they amounted to only 1.5% of total liabilities (4.9% in 2021). Due to high deposit levels and the large volume of liquid assets, banks were able to sufficiently fund lending and needs for wholesale funding remained small. Debt securities amounted to EUR 2 bn, up from EUR 1.3 bn a year earlier.

The loan-to-deposit ratio (LTD) increased to 69.3%, after years of decreasing and was below the euro area average (90%). Banks' balance sheet increased by 4.9% in 2022, slower than in 2021 (8.1%). Banking sector's liquidity remained high, however average liquidity coverage ratio (LCR) decreased by 22 pps to 290% by the end of 2022.

GREEN FUNDING

The National Recovery and Resilience Plan foresees implementing reforms and investments for transition towards a greener economy. The green transition is supported by investments of over EUR 230 mn in energy efficiency and seismic renovation of buildings, including schools. As part of the reform of planning and financing the energy renovation of public buildings and publicly owned residential buildings, investments will cover costs for the thermal insulation of buildings, energy-efficient equipment, cooling and ventilation systems, and energy efficient lighting and control systems.

The Eco fund gives subsidies for investments in residential buildings, construction of nearly zero-energy buildings and purchase of flats in nearly zero-energy buildings.

According to the Commission implementing regulation (EU) 2022/2453 of 30 November 2022 as regards the disclosure of ESG risks, large listed banks had to start disclosing the information on the energy efficiency of the underlying collateral.

1 The DSTI set may not exceed 50% for net monthly income of no more than twice the minimum gross wage (in 2022 2,149 EUR), and 67% for the portion of the net monthly income that exceeds twice the minimum gross wage. At least 76% of the minimum gross wage must remain each month after the payment of all instalments..

	SLOVENIA 2021	SLOVENIA 2022	EU 27 2022
MACROECONOMIC VARIABLES			
Real GDP growth (%) (1)	8.2	5.4	3.5
Unemployment Rate (LSF), annual average (%) (1)	4.8	4.0	6.2
HICP inflation (%) (1)	2.0	9.3	9.2
HOUSING MARKET			
Owner occupation rate (%) (1)	76.1	75.4	69.1
Gross Fixed Investment in Housing (annual change)(1)	0.5	8.9	1.5
Building Permits (2015=100) (2)	119.4	128.1	125.8
House Price Index - country (2015=100) (2)	151.3	173.7	164.6*
House Price Index - capital (2015=100) (2)	161.1	183.8	163.8*
Nominal house price growth (%) (2)	11.5	14.8	10.6*
MORTGAGE MARKET			
Outstanding Residential Loans (mn EUR) (2)	7,479	8,215	6,743,197
Outstanding Residential Loans per capita over 18 (EUR) (2)	4,250	4,746	18,433
Outstanding Residential Loans to disposable income ratio (%) (2)	22.9	23.4	71.5
Gross residential lending, annual growth (%) (2)	32.8	9.4	-6.5
Typical mortgage rate, annual average (%) (2)	1.7	3.7	3.1

* Please note that this value is the simple average of the available values in 2022.

Sources:
(1) Eurostat
(2) European Mortgage Federation - Hypostat 2023, Statistical Tables.

SLOVENIA FACT TABLE

Which entities can issue mortgage loans in your country?	Credit institutions, which includes banks, savings banks and banks' branches as well as the National Housing Fund (NHF).
What is the market share of new mortgage issuances between these entities?	Commercial banks dominate the market. Banks held a market share in the balance sheet total of 91.9%, while savings banks held a share of 5.0% and branches of foreign banks a share of 3.1%.
Which entities hold what proportion of outstanding mortgage loans in your country?	The outstanding amount hold by commercial banks, savings banks and banks' braches is close to 100%, since share of the NHF is negligible.
What is the typical LTV ratio on residential mortgage loans in your country?	The average LTV ratio on new residential mortgages at origination is of 58.8%.
How is the distinction made between loans for residential and non-residential purposes in your country?	Residential loans are loans, granted to households for the purchase or renovation of housing, while commercial loans are loans, granted for the purchase or renovation of commercial real estate.
What is/are the most common mortgage product(s) in your country?	Over 90% of the value of new residential loans were on fixed rates. The value of outstanding residential loans on fixed rates stood at 62% at year end.
What is the typical/average maturity for a mortgage in your country?	Average maturity of new residential loans was 18.5 years.
What is/are the most common ways to fund mortgage lending in your country?	Banks fund their mortgage lending mainly through domestic deposits.
What is the level of costs associated with house purchase in your country (taxes and other transaction costs)?	Real estate transfer tax of 2% of the purchase price (except if subject to VAT, then 22% or 9.5%), capital gains tax (from 0% to 25%, depending on the holding period), real estate agency's fee of up to 4% of the purchase price, notary and court fees.
What is the level (if any) of government subsidies for house purchases in your country?	There are no government subsidies for house purchase.

Spain

By Leyre López, Spanish Mortgage Association

IN A NUTSHELL

- → Extraordinary performance on the real estate and on mortgage market during the year, albeit showing a slowdown over the end of the year, following the gradual tightening on the ECB's monetary policy and amid deteriorating economic conditions.
- → A slowdown on long-term fixed rate loans was seen since mid-year, while borrowers showed a growing interest for mixed rate loans under the pressure of a rising in interest rates.
- → In response to the rapid increase in interest rates, a set of measures under the Royal Decree-Law 19/2022 came into force in November 2022 to alleviate the mortgage burden of vulnerable borrowers.
- → An overall favourable behaviour on the quality of credit exposures was observed in 2022 which would reverse as the tightening of the monetary policy is phase in.

MACROECONOMIC OVERVIEW

The economy grew by 5.5%, exceeding the government forecast and significantly narrowing the gap to pre-pandemic GDP levels. However, some slowdown occurred over the second half of the year, mainly due to a weaker investment performance with tightening lending conditions and declining confidence. Inflation reached 8.3% for the year, while core inflation was 5.2%. Since the end of the year, inflation has slowed due to the decline in energy costs, while core inflation has risen substantially, with possible 'second-round' effects. The labour market has performed well, with the unemployment rate falling by almost two percentage points (pps) in a year, to 12.9%, although still one of the highest in the EU. Particularly noteworthy is the employment, which is at an all-time high, with a total of 20.3 mn workers by the end of 2022, with the tourism and the technology sectors leading the way in job creation.

The financing costs of new public debt has increased significantly, but according to data from the Bank of Spain, the implicit average rate on public debt barely increased 0.2 pps, to 2.1%, suggesting that this is not material within the government budgetary framework. Over the year, the deficit reduced from 6.9% in 2021 to 4.8%, while public debt outstanding fell from 118% to 113%. The Spanish government's objective is to reach a maximum of 3% of the public deficit by the end of 2024, in line with the fiscal targets set by the EU.

LOOKING AHEAD

The last data referring to the residential market suggest a moderation in sales and lending growth. This trend is expected to continue in the coming months in view of the greater difficulty of some households to cope with rising interest rates.

HOUSING MARKETS

The real estate market showed remarkable strength during 2022 thanks to the replacement market, which in the first half of the year was particularly significant with the realisation of potential transactions ahead of time, in view of the prospect of the ECB raising interest rates to counter high inflation.

In 2022, just over 717,000 homes were sold, the highest figure in recent years and 6.4% above the previous year. The second-hand segment was 90% of all sales, showing the limited role of new construction in recent years due to land scarcity in some important areas and the difficulty to build in an environment of sharply rising building costs. New construction permits were granted for 109,000 homes, the highest figure in the last decade but still insufficient to meet demand, estimated at above 200,000 units. This shortage caused price increases of 5% over the year (6% for new homes). Among the most dynamic markets, the Balearic and Canary archipelagos, Madrid, and some coastal areas, such as Málaga, stood out. However, all of them show a slowdown in line with the less favourable economic outlook.

MORTGAGE MARKETS

MARKET DYNAMICS

The mortgage market grew at the most rapid rate in the last decade despite tightening financing conditions. New lending volumes exceeded EUR 65 bn, up 10% on last year. Interest rate increases may explain much of the growth as transactions were bought forward in anticipation of higher rates. The average rate on new loans increased by 50% in the second half of the year. Consequently, since the middle of the year there was a fall in loans with an initial fixed interest of more than 10 years.

Lending standards have remained stable in relation to LTV and the income profile (as the loan-service-to-income), apart from a slight increase in this to from 30% to 33% due to higher interest rates.

The increase in residential loans outstanding was reversed in the second half of 2022 as amortisations were slightly higher than the gross lending. Thus, outstanding residential mortgage loans decreased by 0.1%. Loans for real estate development and the construction sector continued to reduce as they have done since the GFC, after recording a joint decrease of -7.5% in the last year.

Despite the effect of higher rates on households with variable interest rate loans, levels of NPLs have remained favourable with a general improvement in both doubtful ratios and doubtful balances. The NPL rate for mortgages was similar to the pre-crisis levels at 2.3% by year end. NPLs may worsen if the current economic forecast is accurate, but not to a concerning extent, given that credit entities maintain solid levels of provisions and capital and the labour market remains reasonably resilient.

NON-MARKET LED INITIATIVES

Price increases and increased financing costs have led to a fall in real term income causing some loan repayment difficulties in lower-income segments. To partially mitigate this, in November the Government, in collaboration with the banking sector, approved a range of support measures included in Royal Decree-Law 19/2022. The regulation establishes a new Code of Good Practice (Código de Buenas Prácticas, CBP) for middle-class debtors at risk of vulnerability due to rising interest rates; an extension of the vulnerability assumptions to take advantage of the existing Code of Good Practice, in force since 2012 under RDL 6/2012; and the adoption of other structural measures targeted at all mortgage debtors.

The new CBP, together with the 2012 CBP reform, has three lines of action, depending on the circumstances of the debtor and its degree of vulnerability. These measures seek to reduce principle payments by extended mortgage terms and a grace period, which vary depending on eligibility. In addition to the lower interest rate during the grace period, in the case of the 2012 CBP reform, other measures are available if the debt restructuring unfeasible, such as the possibility of requesting a release from the debt or, as a last resort, applying a debt discharge via datio in solutum. According to estimates of the Bank of Spain, 270,000 households could potentially benefit from these CBPs. Additionally, that outside the scope of these CBPs, the RDL establishes a general reduction of costs for early repayment or for conversions of variable rate loans to fixed rate.

MORTGAGE FUNDING

Financing of the mortgage portfolio by covered bonds and mortgage-backed securities – which are currently 45% of total funding – decreased despite the gradual reduction in liquidity facilities from the Eurosystem, which in Spain decreased by 33%. Covered bonds (CBs) and mortgage-backed securities (MBSs) outstanding decreased by 12%, Royal Decree-law 24/2021, which transposes the European Directive on covered bonds came into force in 2022. This funding resource could increase due to reduced ECB liquidity facilities, although the expected slowdown in mortgage activity may result in lower liquidity needs.

GREEN FUNDING

Sustainability is of growing importance as public and private institutions promote a new culture of cooperation aimed at developing a more sustainable housing market. In the area of housing renovation, a public aid scheme was approved in 2020 under the NGEU programme, aimed at improving the energy efficiency of homes or buildings with up to 80% of the cost of the renovation, with the remaining 20% to be provided with own resources or under a financing scheme to which debtors can apply for tax relief. The aid involves a different degree of subsidy with respect to the renovation project, enjoying a higher level of subsidy for those homes or buildings in which there is a clear improvement in energy efficiency and those areas where, due to low incomes, greater support from public funds is required. Despite this initiative, currently housing renovations are still well below the target set by the Government (around 300,000 per year by 2030).

Some banks have designed green mortgage products with a discount on the interest rate if the collateral has an EPC rating of A or B, or if the energy efficiency of the house improves by 30%, but the development of this product is still at an early stage as there are not enough consumers for this product yet and the regulatory capital aspects of the product have not been defined.

	SPAIN 2021	SPAIN 2022	EU 27 2022
MACROECONOMIC VARIABLES			
Real GDP growth (%) (1)	5.5	5.5	3.5
Unemployment Rate (LSF), annual average (%) (1)	14.8	12.9	6.2
HICP inflation (%) (1)	3.0	8.3	9.2
HOUSING MARKET			
Owner occupation rate (%) (1)	75.8	76.0	69.1
Gross Fixed Investment in Housing (annual change)(1)	-5.3	3.1	1.5
Building Permits (2015=100) (2)	218.0	219.2	125.8
House Price Index – country (2015=100) (2)	112.4	118.0	164.6*
House Price Index – capital (2015=100) (2)	129.0	138.7	163.8*
Nominal house price growth (%) (2)	2.1	5.0	10.6*
MORTGAGE MARKET			
Outstanding Residential Loans (mn EUR) (2)	487,146	486,890	6,743,197
Outstanding Residential Loans per capita over 18 (EUR) (2)	12,441	12,391	18,433
Outstanding Residential Loans to disposable income ratio (%) (2)	64.2	59.6	71.5
Gross residential lending, annual growth (%) (2)	35.1	9.7	-6.5
Typical mortgage rate, annual average (%) (2)	1.5	2.0	3.1

* Please note that this value is the simple average of the available values in 2022.

Sources:
(1) Eurostat
(2) European Mortgage Federation - Hypostat 2023, Statistical Tables.

SPAIN FACT TABLE

Which entities can issue mortgage loans in your country?	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 especially affected by the financial crisis due to the high exposure to the real estate sector. Several saving banks disappeared through liquidation or acquisition, and most of the remaining were transformed into banks after Law 26/2013 of 27 December was passed. Since then, only small and regional saving banks operate in the market.
What is the market share of new mortgage issuances between these entities?	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%.
Which entities hold what proportion of outstanding mortgage loans in your country?	Banks and former saving banks stand for the major part of the market, representing around 90% of total outstanding mortgage lending. The remaining 10% is covered by credit cooperatives and financial credit establishments.
What is the typical LTV ratio on residential mortgage loans in your country?	On average, in 2022, the LTV ratio on new residential mortgage loans stood at 65% (according to Bank of Spain statistics). However, the most common LTV for FTB is 80%, while for second houses the maximum level is normally 70%.
How is the distinction made between loans for residential and non-residential purposes in your country?	Residential loans include loans granted to households for housing purchase.
What is/are the most common mortgage product(s) in your country?	The most common mortgage loan product in Spain was the variable rate mortgage loan reviewable every 6 or 12 months with a French amortisation system. In variable-rate mortgage loans, the interest rate is linked to an official reference index (the most common the Euribor 12m). Since 2015, under the era of low-interest rates, initial-fixed interest rate mortgage loans have gained momentum, representing near to 75% of gross residential lending in 2022.
What is the typical/average maturity for a mortgage in your country?	According to Bank of Spain statistics, the average maturity for new mortgage loans in Spain stood at around 24 years and a half, with the most typical term for FTB being 30 years. As usual, the real amortisation period is usually lower, around 15 years on average.
What is/are the most common ways to fund mortgage lending in your country?	Covered bonds, RMBS/CMBS, and deposits.
What is the level of costs associated with house purchase in your country (taxes and other transaction costs)?	The main transactions cost associated with house purchase are VAT for new housing, which represents 10% of the value of the house, and the Tax on property transfer for second-hand dwellings (with a rate 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 costs linked with the constitution of the mortgage must be covered by the bank (Mortgage Stamp Duty – "AJD" Tax; notary, registry, and agency fees), except the cost of the valuation of the property and the notarial copies requested by the client, which are responsibility of the borrower. Another cost that is compulsory for the borrower when taking out a mortgage is the cost of fire insurance.
What is the level (if any) of government subsidies for house purchases in your country?	In 2013, the tax deduction that had been in force for years aimed at aiding homebuyers came to an end, remaining exclusively for those homebuyers who had purchased a property before that date. In 2018, a new State Housing Plan for the 2018-2021 period (recently extended until 2025) came into force, which seeks to facilitate access to housing property for vulnerable young people under 35 years old, whilst trying at the same time to boost the regeneration of urban and rural areas affected by depopulation. Eligible beneficiaries must buy a home in a municipality with less than 10,000 inhabitants and the amount granted under this scheme shall not exceed EUR 10,800 per dwelling, limited to 20% of the purchase price.

Sweden

By Christian Nilsson, Swedish Bankers' Association

IN A NUTSHELL

- → Residential mortgage lending growth slowed to 5.0%.
- → Construction decreased, with -17% less housing starts, affected by developer's rising financing and building costs.
- → Single family home price increases slowed down and was negative in the fourth quarter.
- → The share of new loans with variable interest rates increased to 63.7%.
- → The average LTV for new mortgage loans was stable at 65%.

MACROECONOMIC OVERVIEW

GDP increased by 2.7% in 2022 compared to 5.2% in 2021, according to Eurostat. High inflation and the consequent rise in interest rates were the main drivers of the slowdown of the economy. Households cut back on spending due to large price increases and higher mortgage costs eroding their real income. Government consumption fell in constant terms. Housing investment decreased in the second half of the year. High prices for materials, high market interest rates and lower housing prices are eroding firms' profitability, leading to fewer apartment starts and a sharp drop in new construction. Exports of both commodities and processed goods grew relatively strongly.

Although GDP growth slowed, the number of employed people continued to rise. Labour shortages are still widespread in both the business and the government sectors, and firms' employment plans remain positive despite a substantial decline from their peak last year.

Inflation increased to 12.3% at year-end compared to 3.9% in 2021. Also, core inflation, a measure of underlying inflation that aims to remove the effect of changes in the interest rates from the Consumer Price Index (CPI), increased to 10.2%.

Government debt[1] as a percentage of GDP decreased from 36.5% to 33.0% as general government debt decreased and GDP in current prices increased. The decrease in government debt is equivalent to EUR -18.9 bn in 2022[2].

LOOKING AHEAD

The National Institute of Economic Research[3] reports in their March 2023 Economy Report that high inflation and rising interest rates will erode households' real disposable income this year despite wages and many benefits in the social insurance systems rising more quickly than last year. Inflation and higher interest rates are impacting the housing market, where prices have dropped more than 10% over the past 12 months. Developers' financing and building costs have also risen sharply, and there is widespread pessimism in the industry. Housing investment began to fall in the second half of last year, and the decline will accelerate this year.

Housing investment is forecast to fall by 18% for 2023 as a whole. The decline in housing investment is one important reason why Swedish GDP is expected to shrink this year.

HOUSING MARKETS

Housing construction was comparably strong in the first half of 2022 but started to slow down during the second half. Preliminary, 54,300 dwellings were completed in 2022 which is an 8% increase compared to the previous year. Developers' financing and building costs have risen sharply, and there was widespread pessimism in the industry at the end of the year. It has affected the number of housing starts, which decreased by -17% to around 56,400 dwellings and building permits by -22% to around 60,000.

High inflation, high energy prices and increasing mortgage interest rates increased household housing costs. The increasing costs led to a slower rate of increase in housing prices during 2022. Prices of single-family homes increased by 4.7%, compared to an increase of 16.8 % in 2021. However, in Q4 2022, their prices decreased by -3.7% on an annual basis. They are the most expensive in the Stockholm region where prices increased by 3.7% in 2022 (-5.3% on an annual basis Q4 2022). Single-family house prices in the Gothenburg and Malmö regions increased by 3.3% (-5.1 Q4 2022) and by 2.9% (-5.6 Q4 2022) respectively. In the beginning of 2023, prices continued to decrease.

The price increase for tenant-owned apartments was in general lower than for single-family homes and was largely unchanged overall during 2022. However, in Q4 prices decreased by around -10%.

The share of tenant-owned apartments among new construction of apartments has been relatively stable around 50%. However, in 2021 the share of rental apartments among new construction increased to 64%. Overall, 38% of all apartments are tenant owned and the rest are rented. For all dwellings (single family homes and apartments), the share is reversed: 61% owner occupied and 39% rental.

MORTGAGE MARKETS

MARKET DYNAMICS

Residential mortgage lending grew by 5.0% compared to 6.8% in 2021. The growth rate has slowed after increasing in the previous three years.

Mortgage interest rates increased during 2022 after five years of low and relatively stable rates. The variable (3-month) rate increased to 3.6% at the end

[1] Government consolidated Gross Debt, Maastricht definition.

[2] Eurostat.

of 2022 compared to 1.2% in 2021. Initial fixed rates for 1 to 5 years were 3.8% at the end of 2022 compared to 1.4% in 2021. Initial fixed rates over 5 years increased to 3.1% at the end of 2022 compared to 1.6% in 2021.

The increasing mortgage interest rate has been followed by an increasing share of variable interest rate in new lending. The share of variable interest rate in new lending was 63.7% in 2022 compared to 43.5% the previous year. The average LTV for new mortgage loans is 65% in 2022, which is more or less unchanged to the previous year.

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 more than 25 years.

NON-MARKET LED INITIATIVES

Several measures have been taken over several 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 also introduced a risk weight floor for Swedish mortgages, for bank capital purposes of currently 25%.

A further measure was the introduction of amortisation requirements. In June 2016, Finansinspektionen's regulation on amortisation entered into force, requiring annual amortisation of at least 1-2% on mortgages with LTV of 50% and higher. Stricter amortisation requirements entered into force from March 2018 requiring additional annual amortisation of 1% on mortgages with LTI of 450% or higher. Due to the pandemic a general easing of these rules was introduced in 2020, allowing exceptions such as interest only mortgages. The amortisation exception was abolished in August 2021.

Finansinspektionen introduced additional capital requirements on commercial real estate in 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

The growth rate in outstanding mortgage loans slowed further in March 2023 to 4.4% on an annual basis compared to 7.0% in March 2022.

Prices of one-family homes decreased in the first quarter 2023 by -8.8% on an annual basis, compared with an increase by 4.7% for the full year of 2022.

MORTGAGE FUNDING

Covered bonds are the most common form of mortgage funding. During 2022 covered bonds outstanding increased by 1.0% (in SEK) to EUR 225 bn equivalent. Total outstanding residential mortgages were in comparison EUR 475 bn. New gross issuance was EUR 48 bn in 2022.

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 fulfils certain energy standards. During recent years some institutions have started to issue green covered bonds to fund these green mortgages.

	SWEDEN 2021	SWEDEN 2022	EU 27 2022
MACROECONOMIC VARIABLES			
Real GDP growth (%) (1)	6.1	2.8	3.5
Unemployment Rate (LSF), annual average (%) (1)	8.8	7.5	6.2
HICP inflation (%) (1)	2.7	8.1	9.2
HOUSING MARKET			
Owner occupation rate (%) (1)	64.9	64.2	69.1
Gross Fixed Investment in Housing (annual change)(1)	10.3	5.1	1.5
Building Permits (2015=100) (2)	127.7	105.0	125.8
House Price Index - country (2015=100) (2)	150.3	156.8	164.6*
House Price Index - capital (2015=100) (2)	137.8	142.7	163.8*
Nominal house price growth (%) (2)	16.9	4.3	10.6*
MORTGAGE MARKET			
Outstanding Residential Loans (mn EUR) (2)	490,385	474,525	6,743,197
Outstanding Residential Loans per capita over 18 (EUR) (2)	59,876	57,490	18,433
Outstanding Residential Loans to disposable income ratio (%) (2)	184.5	174.5	71.5
Gross residential lending, annual growth (%) (2)	11.2	-6.0	-6.5
Typical mortgage rate, annual average (%) (2)	1.3	2.3	3.1

* Please note that this value is the simple average of the available values in 2022.

Sources:
(1) Eurostat
(2) European Mortgage Federation - Hypostat 2023, Statistical Tables.

[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

Which entities can issue mortgage loans in your country?	There are no specific limitations as regards issuing mortgages. 99% 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 1% of the mortgage market in 2022.
What is the market share of new mortgage issuances between these entities?	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 2022.
Which entities hold what proportion of outstanding mortgage loans in your country?	Mortgage institutions have approximately 75% of outstanding mortgages and banks approximately 25%. Mortgage credit companies and AIF (Alternative Investment Funds) have 1% of outstanding mortgages.
What is the typical LTV ratio on residential mortgage loans in your country?	According to Finansinspektionen the average LTV for new mortgage loans in 2022 was 65%.
How is the distinction made between loans for residential and non-residential purposes in your country?	The distinction is made based on how the loan is secured. Residential loans are secured on residential property.
What is/are the most common mortgage product(s) in your country?	Ordinary mortgage loans. Variable interest is the most common interest rate on new mortgages (63.7%) in 2021.
What is the typical/average maturity for a mortgage in your country?	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.
What is/are the most common ways to fund mortgage lending in your country?	Covered bonds
What is the level of costs associated with house purchase in your country (taxes and other transaction costs)?	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, borrowers do not pay any fee to the mortgage lender. Notary is not needed in Sweden, thus there is no notary fee.
What is the level (if any) of government subsidies for house purchases in your country?	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

This country report does not represent the view of the bank.

IN A NUTSHELL

- → Population increase due to migration is putting a strain on the housing market. The population grew by 3.1%, the highest since 1734.
- → Inflation has been persistent and the Central Bank has increased the key interest rates to 8.75%. Households with variable interest rates and high LTV are likely to convert these loans to index-linked annuities with maturities up to 40 years.
- → Supply of new housing units is not keeping up with demand due to the population growth.

MACROECONOMIC OVERVIEW

The economy experienced robust growth. According to Statistics Iceland, GDP increased by 6.4% to ISK 3,766 bn.[1] Per capita growth was estimated to be 3.7%. The principal growth driver was increasing private consumption and exports. Statistics Iceland estimates that the GDP in 2023 will grow by 3.8%.

Unemployment between the ages of 16 to 74 was estimated to be 3.7%.

Inflation was persistent as in many other developed economies. The consumer price index rose by 9.6% and 7.5% excluding housing cost. Inflation has been persistent in the first half of 2023 and reached 9.9% in April 2023.[2] Due to the high inflation the Central Bank of Iceland increased its key interest rates by 8.00 pps from its lowest value to 8.75% in the second quarter of 2023. At year-end 2022 the key interest rate was 6.0%.

A strong rebound in tourism has also contributed to the recovery of the Icelandic economy, overnight stays increased by 77% from 2021 to 2022. Tourism has continued to grow in the first half of 2023.[3]

One of the challenges Iceland is facing is that population growth has not been higher since 1734. The population grew in 2022 was 3.1% and population increased by 11,510. The total population was 387,758 on 1 January 2023. This rapid population growth, which is driven by net immigration, puts further strain on the housing market.

LOOKING AHEAD

The ongoing conflict in Ukraine has probably affected Iceland proportionally less than other European countries as most of the energy produced in Iceland is from renewables. Heating and electricity use come from sources of hydro power stations and geothermal power. However, higher oil prices affected the economy and contributed to inflationary pressure to some extent, the sectors most affected were fisheries and the aviation sector.

Inflation, which is broad based, is expected to subside, albeit slowly. Domestic demand is expected to remain elevated throughout 2023 despite higher policy rates. The continued rebound in the tourism sector coupled with population growth and rising wages will maintain a positive output gap throughout the remainder of the year. A possible downside to this scenario could be a drop in tourism.

HOUSING MARKETS

During the pandemic, the Central Bank of Iceland cut interest rates to the lowest level in history, 0.75% pps. In 2021 the Central Bank of Iceland started to increase the key interest rates to the current level of 8.75% in Q2 2023. This has affected the mortgage markets and interest rates on new loans.

House prices continued to increase in 2022, they went up 17.4% in the Capital Region of Reykjavik or 7.1% in real terms compared to the previous year. In comparison prices went up by 18.4% in nominal terms and 12.7% in real terms in 2021. At the beginning of 2023 prices continued to increase in nominal terms, although lagging inflation, and increased by 8.6% from April 2022 to April 2023 in the Reykjavik Capital Region.

Housing completion was 2,886 by year-end 2022 (preliminary data).[4]

The number of transactions fell by 25% from 2021. Compared to these figures the market in 2020 and 2021 was robust with a record number of transactions in 2021. The number of transactions in 2022, was estimated to be 12,422 according to the Housing & Construction Authorities.

MORTGAGE MARKETS

Outstanding residential mortgages were ISK 2,408 bn by year-end an increase of 9.1%, 63.9% of GDP and a decrease of 4.1 pps from 2021.

In June 2022, the Central Bank introduced new rules on maximum LTV ratios and on maximum Debt Service-to-Income ratios for mortgage loans to consumers. The maximum LTV ratio for first-time buyers was lowered from 90% to 85%. For other loans the LTV is 80%. The maximum debt service cannot exceed over 35% of disposable income, or in the case of first-time-buyers,40%.[5] The objective of this strategy was to cool the housing markets contribution to inflation.

Nominal mortgage rates increased substantially in 2022 from 3.7% on average in 2021 to 5.8% on average in 2022. At year-end 2022 the average mortgage rate in December was 7.5%. Indexed mortgage rates decreased on average

---

1 https://statice.is/publications/news-archive/national-accounts/national-accounts-2022-provisional-estimates/
2 https://statice.is/publications/news-archive/prices/consumer-price-index-in-april-2023/
3 https://statice.is/publications/news-archive/tourism/tourism-short-term-indicators-in-may-2023/
4 https://fasteignaskra.is/gogn/fasteignagattin/fjoldatolur-ur-fasteignaskra/fjoldi-ibuda-eftir-byggingarari/
5 https://www.cb.is/publications/news/news/2022/06/15/Rules-on-maximum-LTV-and-DSTI-ratios/
https://www.stjornartidindi.is/Advert.aspx?RecordID=c9a53dc2-7afc-4066-8e0f-3968b8c976d5
https://www.stjornartidindi.is/Advert.aspx?RecordID=045933fe-d5d8-4b69-a416-010b92000550

from 2.4% in 2021 to 2.3%. At year-end 2022 the average mortgage was 2.9% in December 2022. In 2023 mortgage rates continued to rise.
The average LTV ratio was 53.4% a decrease of 5.7 pps.

At year-end 2022 the share of indexed linked mortgages was 42.2% of these 17.8% of the total were subject to variable rates. The share of non-indexed mortgages was at the same time 56.8%. Around 27.5% was subject to variable rates. In the beginning of 2023 household demand for indexed linked mortgages increased. Indexed linked mortgage rates are usually annuities and are therefore backloading in terms of payment structure.

The ratio of house price index to wage index was 131.97 at year-end 2022 but was 126.34 a year earlier.[6]

Households in arrears on mortgage payments are the lowest portion since 2004 or just over 1.1% arrears among tenants increased slightly between 2021 and 2022 or from 5.3% to 7.5%.

The state and the local authorities continued to provide financial support (i.stofnstyrkir) for the construction and purchase of affordable rental apartments, with the objective to lower rental prices in the general rental housing market. The help-to-buy programme will continue in 2023.

According to the European Banking Authority the exposure to real estate activities and construction was 20.5% as percentage of total of exposures to non-financial corporations.[7]

MORTGAGE FUNDING

Covered bond issuance is relatively new and developing in Iceland and demand for the bonds has been limited due to few buyers.

In 2022 the domestic systemically important banks issued ISK 49 bn in króna-denominated covered bonds. According to the Financial Stability report of the Central Bank of Iceland the stock of outstanding covered bonds denominated in ISK contracted by ISK 5 bn in 2022.

Other funding sources come mostly from deposits and from direct lending from pension funds. The principal buyers of covered bonds are pension funds and insurance companies.

GREEN FUNDING

Over several years the Icelandic banks have been providing green funding; for example for cars fuelled by electricity, methane or hydrogen.

Icelandic housing is almost entirely heated with renewable energy, e.g. geothermal heating or electricity generated with hydro or geothermal power plants. In addition, all housing is well insulated and with double glazing.

Foreign funding partners of the Icelandic banks are encouraging green lending and want the balance sheet of banks to be categorized like that. The banks have therefore issued green bonds denominated both in ISK and euros.

It is becoming more common that construction companies incorporate green standards and sustainability targets in the construction of new residential housing.

	ICELAND 2021	ICELAND 2022	EU 27 2022
MACROECONOMIC VARIABLES			
Real GDP growth (%) (1)	4.3	6.4	3.5
Unemployment Rate (LSF), annual average (%) (1)	6.1	3.8	6.2
HICP inflation (%) (1)	3.7	5.7	9.2
HOUSING MARKET			
Owner occupation rate (%) (1)	73.6	n/a	69.1
Gross Fixed Investment in Housing (annual change)(1)	-4.4	-6.3	1.5
Building Permits (2015=100) (2)	#N/A	#N/A	125.8
House Price Index - country (2015=100) (2)	177.6	214.8	164.6*
House Price Index - capital (2015=100) (2)	171.4	212.5	163.8*
Nominal house price growth (%) (2)	12.5	21.0	10.6*
MORTGAGE MARKET			
Outstanding Residential Loans (mn EUR) (2)	14,952	15,897	6,743,197
Outstanding Residential Loans per capita over 18 (EUR) (2)	51,471	54,327	18,433
Outstanding Residential Loans to disposable income ratio (%) (2)	n/a	n/a	71.5
Gross residential lending, annual growth (%) (2)	n/a	n/a	-6.5
Typical mortgage rate, annual average (%) (2)	2.4	2.3	3.1

* Please note that this value is the simple average of the available values in 2022.

Sources:
(1) Eurostat Data
(2) European Mortgage Federation – Hypostat 2023, Statistical Tables

6 Financial Stability Report

7 Statistical Annex EBA.

ICELAND FACT TABLE

Which entities can issue mortgage loans in your country?	Deposit taking corporations (banks) and Pension Funds, the Housing and Construction Authority.
What is the market share of new mortgage issuances between these entities?	In the year 2022 the market share of deposit taking banks was 95% and the pensions fund's share was 4% the remaining 1% was lent by the government's housing authority and building authority (HMS).
Which entities hold what proportion of outstanding mortgage loans in your country?	At year-end 2022 the deposit taking banks held 67% of the total outstanding mortgages to households, the pension funds 18% and IL – Fund (in winding-up, precursor to the HMS) 15%.
What is the typical LTV ratio on residential mortgage loans in your country?	About 55% on new mortgages and about 65% for first time buyers. The maximum LTV at year-end 2022 was 80%, but up to 85% for first time buyers (limit to price). This limit was lowered on 15 June 2022 from 85% to 80% and 90% to 85% respectively.
How is the distinction made between loans for residential and non-residential purposes in your country?	A residential mortgage is a loan to an individual which is backed by real estate or is made for the purpose of buying a residential asset. The Central Bank currently makes a distinction between those loans in its accounts. Banks and pension funds require a pledge in the underlying property for a new mortgage.
What is/are the most common mortgage product(s) in your country?	Mortgage for 25 to 40 years with 3 to 5 year reset period on interest rates (29.4% of outstanding mortgages at end of 2022, about 45% of new mortgages in 2021). Mortgages with fixed payments are more common than with fixed installments. The relative popularity of indexed vs. non-indexed mortgages varies depending on the level of interest and inflation. Most mortgages have flexible rates with reset periods up to five years.
What is the typical/ average maturity for a mortgage in your country?	25 to 40 years
What is/are the most common ways to fund mortgage lending in your country?	Covered bonds and deposits in the case of banks. Members funding in terms of pension funds.
What is the level of costs associated with house purchase in your country (taxes and other transaction costs)?	Stamp duty – 0.8% of the official property valuation (fasteignamat) for individuals and 1.6% for rental companies/legal entities.
What is the level (if any) of government subsidies for house purchases in your country?	The government has introduced a help to buy programme and pays interest expense benefits to low income households. First time buyers pay half of the stamp duty.

Norway

By Michael Hurum Cook, Finance Norway

IN A NUTSHELL

- The economy continues to perform well, with low unemployment and high-capacity utilisation.
- The central bank started to raise rates from a record low of 0% in September 2021 and expects the key policy rate to reach its peak of 4.25% in 2023.
- Price growth has declined as the mortgage rates have gone up.
- The Ministry of Finance decided to loosened the mortgage regulation somewhat.

MACROECONOMIC OVERVIEW

Economic activity continued at a solid pace, although growth was lower than in 2021. Unemployment is slightly lower, with several businesses experiencing labour shortages, the unemployment rate fell from 4.4% to 3.2% over the year (Eurostat).

Inflation surged, with overall price growth at its highest since the 1980s, with underlying inflation at 5.8%, well above the central bank's target of 2%. Wage growth and wage growth expectations have also increased. The central bank started to raise rates in September 2021 from a record low of 0% and the key policy rate is as of June at 3.75%. Communication from the central bank indicates a peak level of the key policy rate at 4.25%.

According to the central bank the mainland (non-oil) economy performed better than expected, but going forward it is expected that it will grow at a slower pace. They forecast that mainland-GDP will increase by 1.1% in 2023, down from 3.7% in 2022.

During the pandemic, residential and commercial property prices increased substantially, and household credit growth accelerated. As the mortgage rates started to increase in 2021, house price growth has declined but remained positive.

LOOKING AHEAD

The conflict in Ukraine has led to heightened economic uncertainty. Trade with Russia and Ukraine is very limited, but the economy is not immune to shocks caused by the conflict.

For the mortgage and housing markets, the main drivers will be the key policy rate and economic activity and unemployment. The economy is expected to grow at a slower pace while unemployment may increase somewhat from a very low level. Almost all households with a mortgage have chosen floating rates, which implies that an increased policy rate has a stronger and more direct effect on households' disposable income.

According to the central bank, many households have used their extra savings from the pandemic to support their consumption level. As this possibility will be exhausted at some point, it is expected that household consumption will decrease, although expectations of higher growth in real disposable income may lead to an increase in consumption further down the road.

HOUSING MARKETS

The housing market is characterised by a high ownership rate. According to Statistics Norway, 81.8% of all households own their dwelling. The housing market consists of 48% detached houses, 25% multi-dwelling buildings, 12% row house etc, 9% houses with 2 dwellings and other buildings 6%.

House prices grew during the pandemic, particularly in urban areas. Interest rate cuts in early 2020 reduced the mortgage burden for households, with more than 90% of mortgages being variable-rate. Low interest rates have supported the demand for housing in recent years. According to the central bank, there has been a net migration from the capital Oslo for the first time in 20 years, as the pandemic changed housing preferences, increasing demand for larger dwellings in rural areas. Nevertheless, Oslo has experienced the largest increase in prices in recent years and the price level is well above that of other major Norwegian cities.

Up to 2017, there was an extended period of house price growth due to low interest rates, high income growth and low construction activity. In 2017 the trend turned, particularly in Oslo, due to increased construction activity as well as amendments of the mortgage regulation decided by the Ministry of Finance. The introduction of a new requirement of a maximum loan-to-income of 500% contributed to a dampening effect on house price growth. Afterwards, house price growth was stable before it started to increase as the key policy rate was reduced due to the pandemic. As interest rates have increased, house price growth has slowed.

Uncertainty about future developments in the housing market has led to a decrease in demand for new buildings which in turn has affected construction negatively. A survey conducted by the research company "Prognosesenteret" in April 2023 suggests that the sales of new residential real estate was 36% lower over the last 12 months. The number of housing starts in the last 12 months has declined by 21%. Given the fairly slow reaction of new construction to increased demand, the reduction of housing starts may support the price level in the housing market going forward.

MORTGAGE MARKETS

Household borrowing costs have risen since the policy rate was raised in 2021. The central bank forecast the average residential mortgage rate to peak at about 5.4% in 2024, from around 2% on average in 2021-2022. A lending survey carried out by the central bank in the first quarter of 2023 shows that banks expect slightly lower credit demand from households. It also reflects that there has been an increase in households applying for a period of interest-only payments.

The mortgage market is dominated by variable-rate loans. According to the FSA, overall credit demand has been fairly stable since the end of 2020. In 2022 the annual growth in loans to households increased by 5.4%.

An annual mortgage lending survey carried out by the Norwegian Financial Supervisory Authority shows that the average LTV ratio for new loans remains quite stable at 64%.

New mortgages are typically written with a 25-year maturity. There is no pre-payment penalty on floating interest rate loans, and it is convenient to move a mortgage to another institution. Almost all loans to households secured on dwellings are granted by banks and mortgage credit institutions.

To mitigate the build-up of debt in vulnerable households, the government has set requirements for banks and other financial institutions. Residential mortgage loans have been subject to regulation since 2015, building on guidelines which had been in effect since 2011.In December 2020, the Finance Ministry consolidated the requirements in a new regulation covering both residential mortgages and consumer loans. The regulation was reviewed in 2022 which resulted in a loosening of some of the requirements. The current regulation will be in force until the end of 2024 and entails the following requirements for mortgages:

- LTV requirement of maximum 85%
- Stress test: Households must be able to service their debt in the event of a 3 pps increase in mortgage rates. The minimum stress test level is a 7% interest rate
- Maximum DTI ratio requirement of five times gross annual income
- Mandatory principal payments (i.e., not allowed with interest-only loans) when 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 (the limit is 8 % for Oslo)

Defaults on mortgages have been very low for a long time. Even during the banking crisis in the early 1990s, the losses on mortgages were not severe for Norwegian banks. In 2022 the share of defaulted household loans as a share of gross lending declined slightly.

MORTGAGE FUNDING

Norwegian banks and covered bond companies (separate legal entities whose main purpose is to fund appropriate assets with covered bonds) are on aggregate funded by 13% equity, 47% deposits and 40% wholesale funding. Covered bonds constitute approximately half of the latter, in addition to senior, unsecured bonds and short term-funding. Covered bonds are hence a very important source of funding of residential mortgages. To date, there are 24 issuers of covered bonds in Norway. In 2022 approximately EUR 34 bn worth of covered bonds was issued. The total level of outstanding bonds was close to EUR 134 bn, with 51% of the outstanding bonds denominated in NOK, 45% in EUR, and the remaining 4% in other foreign currencies.

According to figures from the FSA, the development in banks' 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. During the pandemic the level of deposits increased but anecdotal evidence suggests that this trend has shifted during the last months.

GREEN FUNDING

Sustainable finance has been a key priority for several years. In 2015, the Oslo Stock Exchange 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 issued. The Norwegian financial industry fully supports the work on sustainable finance in the EU and is currently working on interpreting and adapting for instance taxonomy standards on residential real estate in a Norwegian context (top 15 %, NZEB etc.), together with the authorities.

Several banks offer green mortgages to their customers, some even with a discounted interest rate. Green mortgages are most commonly linked to Energy Performance Certificate (EPC) or to specific initiatives such as installing solar panels.

The first green covered bonds issuance took place in 2018. Today, 14 Norwegian issuers have issued green covered bonds based on residential mortgages. Outstanding volume was approximately EUR 10.5 bn at year-end 2022 and issuances have been done in NOK, SEK and EUR.

	NORWAY 2021	NORWAY 2022	EU 27 2022
MACROECONOMIC VARIABLES			
Real GDP growth (%) (1)	3.9	3.3	3.5
Unemployment Rate (LSF), annual average (%) (1)	4.4	3.2	6.2
HICP inflation (%) (1)	3.9	6.2	9.2
HOUSING MARKET			
Owner occupation rate (%) (1)	n/a	n/a	69.1
Gross Fixed Investment in Housing (annual change)(1)	0.6	-1.4	1.5
Building Permits (2015=100) (2)	97.4	96.6	125.8
House Price Index - country (2015=100) (2)	134.9	137.3	164.6*
House Price Index - capital (2015=100) (2)	144.8	147.3	163.8*
Nominal house price growth (%) (2)	5.1	1.8	10.6*
MORTGAGE MARKET			
Outstanding Residential Loans (mn EUR) (2)	328,387	324,846	6,743,197
Outstanding Residential Loans per capita over 18 (EUR) (2)	76,732	75,252	18,433
Outstanding Residential Loans to disposable income ratio (%) (2)	174.4	178.1	71.5
Gross residential lending, annual growth (%) (2)	n/a	n/a	-6.5
Typical mortgage rate, annual average (%) (2)	1.8	2.8	3.1

* Please note that this value is the simple average of the available values in 2022.

Sources:
(1) Eurostat
(2) European Mortgage Federation – Hypostat 2023, Statistical Tables.

NORWAY FACT TABLE

Which entities can issue mortgage loans in your country?	Banks, credit institutions (such as covered bond companies) and state lending institutions.
What is the market share of new mortgage issuances between these entities?	Not available for new mortgage issuance.
Which entities hold what proportion of outstanding mortgage loans in your country?	Banks and (partly or fully owned) covered bond companies have granted almost all mortgage loans. State lending institutions have a marginal share.
What is the typical LTV ratio on residential mortgage loans in your country?	64 % for new mortgages according to a survey conducted by the FSA.
How is the distinction made between loans for residential and non-residential purposes in your country?	Not available
What is/are the most common mortgage product(s) in your country?	Floating rate mortgage
What is the typical/ average maturity for a mortgage in your country?	The standard maturity for mortgage loans is about 25 years.
What is/are the most common ways to fund mortgage lending in your country?	Covered bonds and deposits.
What is the level of costs associated with house purchase in your country (taxes and other transaction costs)?	Roundtrip transaction cost (registration fee, real estate agent's fee, transfer stamp duty) are between 3.75%-5.6%.
What is the level (if any) of government subsidies for house purchases in your country?	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.

Switzerland

By Ursina Kubli, Matthias Wüthrich (Zürcher Kantonalbank, ZKB),
Remo Kübler and Darius Schlaeppi (Swiss Bankers Association, SBA)

IN A NUTSHELL

- → The economic recovery from the pandemic-related slump continued; GDP grew at an above-average rate of 2.1% and unemployment reached a new low of 1.9%.
- → Increased interest rates in mid-2022 marked a turning point in a long-lasting period of low interest rates and made owning property more expensive than renting again.
- → Mortgage growth remained stable (3.5%), and the rise in owner-occupied house prices since the turn of the millennium slowed.
- → Continued population growth and reduced construction activity led to a decline in the vacancy rate to 1.31% given the continued demand for owner-occupied homes and apartments for rent.
- → The Swiss Bankers Association (SBA) has set out a new self-regulation on mortgage lending with the aim to promote energy efficiency and sustainable property financing.

MACROECONOMIC OVERVIEW

The government in early 2022 lifted all remaining travel and public health restrictions, which provided a substantial boost to the economy. Although the beginning war in Ukraine clouded the economic outlook and increased uncertainty on the global market, the economy proved resilient, not least due to the measures taken to overcome supply chain disruptions.

GDP grew at an above-average rate of 2.1%. Foreign trade contributed negatively to GDP growth for the first time in five years. However, private consumption expenditure recovered noticeably, partly reflecting a post-pandemic catch-up effect. The building and construction sector, in contrast, faced its most significant decline in value added since the 1990s. Investment in construction declined, while investment in equipment increased, but at a below-average rate.

The labour market proved very robust. Almost all key labour market indicators reached or exceeded all-time highs, while registered unemployment reached a new low of 1.9% towards the end of the year. Sectors most affected by the measures imposed throughout the pandemic experienced a particularly pronounced employment growth. The shortage of skilled labour further intensified during the year with the highest ever recorded number of job openings being reported as companies struggled to fill even unskilled jobs.

Energy price rises led to an increase in inflation. However, price increases were moderate compared to neighbouring countries, due to the specific Swiss energy mix (mainly hydro), the widespread price regulations in Switzerland and the appreciation of the national currency. The annual inflation rate reached 2.8%. Hence, the Swiss National Bank (SNB) abandoned its negative interest rate policy introduced in 2014 and raised the benchmark rate by 175 bps within six months and is expected to raise rates further in 2023. The rapid and substantial increase in interest rates, combined with geopolitical and economic uncertainties, is likely to weaken economic growth in the coming year.

HOUSING MARKETS

Residential property prices have risen steadily since the turn of the century. The pandemic has further fuelled this trend as individuals – being confined to their homes – began to reconsider their living situations, leading to a veritable surge in demand for residential properties. The housing market entered a new phase in early 2022 due to an unexpected and pronounced increase in long-term interest rates and the end of the policy of negative interest rates in September.

Within a short period of time, property owners saw the financial benefits of homeownership reduced after having benefited from low housing costs for years. Acquiring residential property in the current interest-rate environment is more expensive than renting a comparable property, even when an 80% LTV ratio and the most cost-effective financing solution (i.e Swiss Average Rate Overnight mortgage, SARON) is offered. The increase in interest costs has impacted the motivation for buy-to-let investments in a similar manner. Despite the changed interest-rate environment, single-family homes prices increased by 5.5%, while condominium prices increased by 5.2%. The figures indicate a notable cooling on the housing market compared to last year, and this trend is expected to continue over the next two years.

The dampening in prices was accompanied by a decrease in the number of open-market transactions. During the pandemic, almost all property listings found buyers within a short time. Now, it takes longer to market properties, especially if the price-performance is unfavourable. Demand for owner-occupied residential properties is likely to decrease, nonetheless a market downturn seems highly unlikely. In addition to financial considerations, factors such as security, flexibility, and status play an important role when deciding on buying a home. Furthermore, the owner-occupied property market indirectly benefits from the situation on the rental housing market.

In view of the increasing housing shortage, finding a suitable rental apartment is becoming more challenging. Construction activity in Switzerland peaked in 2018, while the population continued to grow, leading to a decrease in the number of vacant dwellings (2022: 1.31% and 2021: 1.54%). In this market environment, quoted rents in Switzerland have grown significantly at 2.9%.

Although rents have increased, higher interest rates and valuation risks associated with multi-family buildings prove to be less beneficial for landlords. Property prices according to the index of Fahrländer Partner declined by -4.5%, not according to the indices of Wüest Partner and IAZI, they increased by 4.6% and 5.6% respectively. It is expected that these indices will also turn downward. The rise in interest rates brings alternative investment options to the forefront, which will presumably dampen the willingness to invest in multi-family buildings.

MORTGAGE MARKETS

MARKET DYNAMICS

The mortgage market grew by 3.5% compared to 3.1% in the previous year to CHF 1.16 tn by year end making the national mortgage market one of the largest in the world. The growth is largely due to property price increases. Also, for tax reasons, mortgages rarely fully amortise.

The median LTV ratio for mortgages granted in 2022 has remained stable or decreased slightly. For owner-occupied residential properties, the median LTV remained at 67%, while for investment properties, it was 64%. The Swiss Bankers Association's (SBA) self-regulation limits the LTV ratio of newly issued mortgages. SNB numbers proved its effectiveness: in 2022, the 90th percentile for owner-occupied residential properties was at 80% and for investment properties at 75%. Furthermore, SBA's amortisation requirements contribute to a rapid debt reduction for borrowers. The attractive market conditions and moderate loan-to-value ratios result in a very low non-performing loan (NPL) ratio of 0.63% for all types of credit, including unsecured financing.

The increase in interest rates in mid-2022 marked a turning point in the long period of low rates and had a significant impact on interest costs for new mortgage contracts. The interest rate for 10-year fixed-rate mortgages more than doubled compared to the end of 2021 (2021: 1.39% | 2022: 3.19%). Due to the normal yield curve, shorter loan terms continue to be preferred. The share of mortgages with a remaining maturity period over 5 years decreased from approximately 29% (2021) to 27.5% (2022). With the departure from the policy of negative interest rates, banks stabilised their interest margins.

Increasing rates are likely to limit mortgage market growth. Nevertheless, the mortgage market remains competitive. Banks continue to play a dominant role with 95% of all outstanding mortgages. The cantonal banks hold the largest market share with 38%, followed by UBS and Credit Suisse with 26%, and the Raiffeisen Switzerland Group with 18%. The remaining 8% are distributed among regional and savings banks.

NON-MARKET LED INITIATIVES

At the request of the SNB, the Federal Council reactivated the countercyclical capital buffer (CCyB). Banks are therefore once again required – effective as of 30 September 2022 – to hold additional capital equivalent to 2.5% of loans secured by residential properties in Switzerland. SNB has explained its decision to set the capital buffer at 2.5% – half a percentage point higher than before its pandemic-related deactivation – with further increase in risk on the real estate and mortgage markets.

However, the decision to reimplement the countercyclical capital buffer has been questioned by the SBA as banks have arguably remained cautious in their lending practices. In particular, the SBA has stated that SNB's risk assessment methods overstate affordability risks and do not sufficiently account for stabilizing effects (e.g. additional amortisation rules) or fundamental factors such as population growth, land scarcity, wealth, and asset accumulation. LTV ratios confirm that banks have introduced measures to minimise affordability risks regarding income producing real estate (IPRE). The share of new IPRE mortgage loans with an LTV ratio exceeding 75% has decreased substantially in the wake of the revised SBA guidelines on minimum requirements for mortgage loans in 2020.

MORTGAGE FUNDING

Traditionally, Swiss banks finance their mortgage lending largely by customer deposits; albeit the specific share varies from bank to bank. According to the SNB, mortgage loans account for 49% of domestic assets, while customer deposits amount to 65% of domestic liabilities (as of 2021). Covered bonds collateralised by real estate mortgage loans are another important source of funding, accounting for about 14% of total outstanding mortgage loans in 2022. Historically, the Swiss covered bond market has been mainly driven by two specialised institutions: The Pfandbriefzentrale der Schweizerischen Kantonalbanken AG and the Pfandbriefbank Schweizerischer Hypothekarinstitute AG, both of which have the right to issue Swiss Pfandbriefe for their member banks under the Federal Pfandbrief Act. Their market share amounts to 36.7% of domestic debtors of bonds in CHF.

Lately, three institutions – Credit Suisse (Switzerland) Ltd, Valiant Bank AG and Crédit Agricole Next Bank (Suisse) SA – have launched their own covered bond programmes under contractual private law, thus diversifying their funding sources. As with the legacy covered bond programmes of UBS Inc. and Credit Suisse AG, however, these are structured programmes that are not subject to the Pfandbrief legislation.

In addition to customer deposits and covered bonds, banks resort to interbank loans, other bonds, and equity to refinance its mortgage lending business. This includes green bonds, the proceeds of which are used to refinance mortgages that meet specific environmental criteria. As of the end of 2022, green bonds amounted to approximately CHF 1.5 bn.

GREEN FUNDING

In the broader context of the Swiss government's financial market policy and strategy to establish Switzerland as a leading hub for sustainable finance, the SBA has set out a new self-regulation on mortgage-lending with the aim to promote sustainable property financing. The so-called "Guidelines for Mortgage Providers on the Promotion of Energy Efficiency" relate to the provision of advice for individuals seeking finance for owner-occupied single-family homes and holiday homes to make clients aware of the importance of energy efficiency upgrades.

When providing advice on property financing, mortgage providers are required to discuss with the client the long-term value retention, and thus also the energy efficiency of the building to be financed. Furthermore, mortgage providers are expected to provide information on available public and private funds for building modernisations, as well as on independent experts or specialist bodies for the purpose of obtaining specific technical advice on the energy impact and financial effects of any optimisation measures. Finally, mortgage providers commit to provide appropriate and regular training to their client advisors regarding long-term value retention and improvement of energy efficiency.

The new self-regulation comes into force on 1st January 2023. A transition period up to 1st January 2024 applies for banks to adapt their internal processes. The new guidelines are a result of a broad consultation process with all SBA member institutions and are therefore binding; non-members can adhere on a voluntary basis. The guidelines will be subject to an annual review process. If necessary, the self-regulation will be updated and adapted to relevant market changes.

	SWITZER-LAND 2021	SWITZER-LAND 2022	EU 27 2022
MACROECONOMIC VARIABLES			
Real GDP growth (%) (1)	4.2	2.1	3.5
Unemployment Rate (LSF), annual average (%) (1)	5.1	4.3	6.2
HICP inflation (%) (1)	0.5	2.7	9.2
HOUSING MARKET			
Owner occupation rate (%) (1)	42.2	n/a	69.1
Gross Fixed Investment in Housing (annual change)(1)	n/a	n/a	1.5
Building Permits (2015=100) (2)	n/a	n/a	125.8
House Price Index – country (2015=100) (2)	112.5	119.8	164.6*
House Price Index – capital (2015=100) (2)	n/a	n/a	163.8*
Nominal house price growth (%) (2)	9.1	6.4	10.6*
MORTGAGE MARKET			
Outstanding Residential Loans (mn EUR)[3] (2)	n/a	n/a	6,743,197
Outstanding Residential Loans per capita over 18 (EUR) (2)	n/a	n/a	18,433
Outstanding Residential Loans to disposable income ratio (%) (2)	n/a	n/a	71.5
Gross residential lending, annual growth (%) (2)	n/a	n/a	-6.5
Typical mortgage rate, annual average (%) (2)	1.2	1.3	3.1

* Please note that this value is the simple average of the available values in 2022.

Sources:
(1) Eurostat
(2) European Mortgage Federation - Hypostat 2023, Statistical Tables.

SWITZERLAND FACT TABLE

Which entities can issue mortgage loans in your country?	Banks, insurers, and pension funds issue mortgage loans. However, from a legal perspective, private individuals can grant mortgages too.
What is the market share of new mortgage issuances between these entities?	Not available
Which entities hold what proportion of outstanding mortgage loans in your country?	Banks account for about 95% of the total outstanding mortgage loans. The rest of the market is shared by insurers (~3%) and pension funds (~2%).
What is the typical LTV ratio on residential mortgage loans in your country?	The median LTV for mortgage loans granted in 2022 stood at 67%, which is equivalent to the LTV of a first mortgage. A second mortgage can cover the missing loan amount up to typically an LTV of 80% (self-occupied residential real estate).
How is the distinction made between loans for residential and non-residential purposes in your country?	The Capital Adequacy Ordinance (CAO) differentiates between loans for residential properties and loans for other properties. Residential properties are defined as properties that are self-occupied and/or rented out by the borrower.
What is/are the most common mortgage product(s) in your country?	Fixed-rate mortgages are the most common mortgages in Switzerland and their maturity can range between 2 and 15 years. The proportion of money-market mortgages has increased significantly in light of the general rise in interest rates.
What is the typical/ average maturity for a mortgage in your country?	Most of the (fixed rate) mortgages offered on the market have a maturity between 3 and 10 years.
What is/are the most common ways to fund mortgage lending in your country?	Customer deposits and Swiss Pfandbriefe.
What is the level of costs associated with house purchase in your country (taxes and other transaction costs)?	The additional costs (i.e. property transfer tax, registration fee and notary fees) vary from canton to canton and can range from 2 to 5% of the purchase price.
What is the level (if any) of government subsidies for house purchases in your country?	There are no specific subsidies for purchasing residential real estate. However, the government scheme to promote home ownership allows for the early withdrawal and the pledging of pension assets for the purchase, the construction, and the modification of owner-occupied residential property as well as the repayment of mortgage loans and the purchase of shares in a housing association, or similar participations.

United Kingdom

By Joseph Thompson, Building Societies Association

IN A NUTSHELL

- → House prices fell as mortgage interest rates rose and cost of living weighs on affordability.
- → House prices in London grow more slowly than the rest of the UK, but remains the most expensive region.
- → Arrears increased slightly but remain low.
- → The effects of the pandemic on the housing market begin to dissipate.
- → Help to buy equity loan scheme for first-time buyers closed in October 2022 but mortgage guarantee scheme extended to December 2023

MACROECONOMIC OVERVIEW

The economy grew by 4.1% following growth of 7.6% in 2021. By the end of 2022, the economy had recovered from the contraction over the pandemic and the level of GDP was broadly on a par with that in February 2020. Growth was driven by pent up demand by households who were able to accumulate a large amount of savings in 2020 and 2021.

Consumer prices rose throughout 2022 mainly driven by higher energy costs as a result of the political crisis in Ukraine and supply bottlenecks as the global economy recovered from the pandemic. In addition, conditions in the UK labour market were extremely tight with job vacancies reaching record high levels whilst the number of those considered economically inactive (not in work or looking for work) increased significantly, mainly due to more people suffering from long term illnesses. This put additional upward pressure on wages and prices and in October to December 2022 average wage growth remained elevated at 5.9%. Although adjusted for inflation, wages in real terms fell by 3.1%. Consumer prices measured by the Consumer Price Index (CPI) increased by 10.5% in the 12 months to December 2022, far higher than the Bank of England's 2.0% target. In response to higher inflation, credit conditions tightened significantly in 2022, with the Bank Rate increasing from 0.1% in December 2021 to 3.5% by the end of 2022, and then to 4.5% by May 2023.

LOOKING AHEAD

Wage and price setting remain more persistent than expected, and whilst the headline rate of inflation has reduced due to falling energy costs, core inflation remains persistently high. This suggests further tightening of monetary policy may be required throughout 2023 to bring CPI inflation back to the 2.0% target. This will put additional financial pressures on households in 2023 and beyond. It is estimated that around 1.8 mn households will be coming off fixed rates in 2023, many of which were fixed at rates close to 1.0%. These households will see a significant shock to their finances when refinancing at current mortgage interest rates. Mortgage affordability will decline for first-time buyers and those looking to buy a new home which is likely to see demand fall for house purchases and for prices to come under further downward pressure.

HOUSING MARKETS

House prices increased by 10.1%, from 8.9% in 2021 and 2.9% in 2020. However, towards the end of 2022 house prices started to fall on a month-on-month basis across all regions in the UK. This reflected a slowdown in housing market activity as the cost of living and rising mortgage interest rates put pressure on household finance.

In London, house prices grew by 5.9%, less than the UK as a whole, however it remains the most expensive region in the UK. Price growth remained stronger for larger, detached properties, reflecting the continued adjustment in housing preferences following the pandemic and more people working from home. However this trend has begun to fade as people move back to cities and resume a more normal way of living with more people returning to work in the office.

In England, home ownership rates have increased over the last few years from a low of 63% in 2016/17 to the current rate of 64.3% in 2021/22 which was relatively unchanged from 64.9% in 2020/21. The return to higher interest rates and the fall in mortgage affordability, may mean home ownership rates keep lowering in the coming years.

In 2021/22, a greater proportion of homeowners owned their home outright (35%) compared to those with a mortgage (30%). This has been the case since 2013/14 and is partly explained by the ageing population, with a large number of 'baby boomers' reaching their retirement and being able to pay off their mortgage. Only 49% of households own their home in London compared to 67% in all other regions of England. 29% of people rent in London compared to 17% in all other regions of England.

There were 178,110 house building starts and 177,820 completions in 2022. This was relatively similar to the number of starts and completions in 2021.

MORTGAGE MARKETS

MARKET DYNAMICS

Mortgage lending activity was strong in 2022. Gross lending totalled GBP 313.7 bn in the year, up 2% on the GBP 308.1 bn in 2021 and 17% on the GBP 269.0 bn in 2019 - before the pandemic. Net lending was GBP 61.0 bn, down 15% on the GBP 72.0 bn in 2021 but up 23% on the GBP 46.8 bn in 2019 - before the pandemic. This reduction in net lending is due to the very high level of mortgage repayments in the year, totalling GBP 254.4 bn - up 7% on the GBP 237.8 bn in 2021 and the highest since comparable records began in 1999. Homeowners may have opted to pay down mortgage debt as interest rates began to rise in order to reduce mortgage interest payments.

The mean LTV ratio on new loans was 71.7% in 2022, up from 70.3% in 2021 reflecting the increased size of the average loan advanced which was up 6% from GBP 224,000 in 2021 to GBP 237,000 in 2022.

Average mortgage interest rates on new loans were 2.56% in 2022, up from 2.11% in 2021. This largely reflect the increase in the Bank of England base rate which increased from 0.25% in January 2022 to 3.5% in December 2022. It also reflects the additional risk premium included by lenders following the increased economic uncertainty after the Government's fiscal announcements in September 2022. For much of the year interest rates on longer fixed term products were lower than on shorter term products. For example the average rate on a 2 year fixed rate loan at 75% LTV was 3.51% in 2022 compared to 3.38% on a 5 year fixed rate at 75% LTV. This reflected market expectations that the base Rate would begin to fall in the medium term.

The number of loans in arrears increased to 2.48% at the end of 2022, up from 2.19% at the end of 2021 reflecting the increased financial pressures on households from the increased cost of living and rising mortgage interest rates. There were 1,159 new properties taken into possession in 2022, up from 752 in 2021. However this still remains very low and is below the 2,043 in 2019 - before the pandemic. Many of these new possessions are cases that are likely to have been in difficulty prior to the pandemic and not a result of recent changes in the macroeconomic environment. However, arrears may pick up in 2023 and 2024 with 1.8 mn households coming off fixed rates and needing to refinance at much higher rates.

NON-MARKET LED INITIATIVES

The Help to Buy equity loan scheme for first-time buyers closed to new applicants in October 2022 after 10 years of operation. This Government scheme assisted around 225,000 first time buyers by lending them up to 20% of the value of a property (40% in London), for properties up to a value of GBP 600,000. A 5% deposit was required from the buyer, and the loan was interest-free for the first five years.

The government's mortgage guarantee scheme was extended in December 2022 for a further year until December 2023. This helps first-time buyers purchase a home with a 5% deposit. Under the scheme the government offers lenders the financial guarantees they need to provide mortgages that cover the other 95%, subject to the usual affordability checks, on a house worth up to GBP 600,000. This scheme was first launched in April 2021 and assisted over 24,000 households.

MORTGAGE FUNDING

At the end of 2022 banks had borrowed GBP 182 bn via the TFSME (Term Funding Scheme with additional incentives for Small and Medium sized enterprises) which will need to be refinanced over the next two years. Some GBP 10 bn has already been repaid, and more may be repaid early as the cost of funding via the scheme has risen with the Bank Rate.

Funding from retail deposits was strong relative to the pre-pandemic period in 2022. Lenders raised GBP 74.3 bn from customer deposits, compared to GBP 63.9 bn in 2019. However, it was weaker than in 2021 (GBP 113.0 bn) and 2022 (GBP 177.8 bn) during which households were able to build up considerable savings (in aggregate) due to the limited spending opportunities whilst incomes were supported by the government's jobs retention scheme. Savings interest rates increased over the year as the Bank Rate increased and new drawings from TFSME stopped, increasing competition for deposits. Instant access rates increased to just 0.83% in December 2022 compared to 0.09% in December 2021. Fixed rates increased to 3.33% in December 2022 from 0.67% in December 2021.

2022 saw a return to public funding by UK covered bond issuers, with over GBP 13 bn of public bonds issued, compared to GBP 3 bn in 2021. A further GBP 2 bn of new retained bonds meant that the level of new issuance was broadly similar to bond maturities. The increased supply of new bonds was met with good investor demand, as the end of the pandemic and the scheduled repayment of central bank funding supported higher levels of activity.

GREEN FUNDING

There are a number of initiatives to help finance energy efficiency improvements currently underway in the UK. First, the Government has launched the Green Home Finance Accelerator, which is providing grants to selected projects to develop innovative financing options in this area. The programme is currently in its discovery phase with over GBP 4 mn allocated to 26 separate projects. The Government has also implemented various subsidies and grants for various clean energy technologies. For instance, the Boiler Upgrade Schemes provides grants to homeowners installing heat pumps to help them meet the upfront costs. Other initiatives include the Great British Insulation Scheme, which will provide GBP 1 bn in funding for improvements such as cavity wall and loft insulation, and the Heat Pump Investment Accelerator competition that offers GBP 30 mn to stimulate heat pump production. The Government is also consulting on increasing energy efficiency standards with lenders.

At the regional level, Manchester has implemented a retrofit plan to decarbonise its housing stock. The programme includes distinct financing mechanisms to be tested, including property-linked finance, green rental agreements and a green mortgage campaign.

Aside from government schemes, the market has continued to develop new green finance options for homeowners. In the past several years, the market has grown from a handful of green mortgage options to well over 50. These typically involve incentives in the form of discounted interest rates or cash back for purchasing an energy efficient home or upgrading an existing property. More innovative products have come to market recently. These include offers of additional borrowing for home upgrades at 0% interest; enhanced EPC certificates (EPC-plus) providing more detail and access to a technical team with questions, retrofit project management services; and modification of affordability calculations to account for cost savings on energy efficient properties.

	UK 2021	UK 2022	EU 27 2022
MACROECONOMIC VARIABLES			
Real GDP growth (%) (1, 3)	7.6	4.1	3.5
Unemployment Rate (LSF), annual average (%) (1, 3)	4.8	3.6	6.2
HICP inflation (%) (1, 3)	2.5	7.9	9.2
HOUSING MARKET			
Owner occupation rate (%) (1)	65.2	64.3	69.1
Gross Fixed Investment in Housing (annual change)(1)	n/a	n/a	1.5
Building Permits (2015=100) (2)	n/a	n/a	125.8
House Price Index - country (2015=100) (2)	130.6	143.7	164.6*
House Price Index - capital (2015=100) (2)	117.9	124.9	163.8*
Nominal house price growth (%) (2)	10.2	10.1	10.6*
MORTGAGE MARKET			
Outstanding Residential Loans (mn EUR) (2)	1,861,750	1,835,703	6,743,197
Outstanding Residential Loans per capita over 18 (EUR) (2)	35,012	n/a	18,433
Outstanding Residential Loans to disposable income ratio (%) (2)	102.9	97.2	71.5
Gross residential lending, annual growth (%) (2)	29.8	2.6	-6.5
Typical mortgage rate, annual average (%) (2)	2.1	2.6	3.1

* Please note that this value is the simple average of the available values in 2022.

Sources:
(1) Eurostat
(2) European Mortgage Federation - Hypostat 2023, Statistical Tables.
(3) Office for National Statistics, UK.

UNITED KINGDOM FACT TABLE

Which entities can issue mortgage loans in your country?	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).
What is the market share of new mortgage issuances between these entities?	MFIs – 91% Other specialist lenders – 7% Other – 2%
Which entities hold what proportion of outstanding mortgage loans in your country?	MFIs – 89% Other specialist lenders – 7% Other – 4%
What is the typical LTV ratio on residential mortgage loans in your country?	72% (NB, now presented as mean statistic, formerly median. This results in a downward shift in LTV figures, although underlying trends are unchanged).
How is the distinction made between loans for residential and non-residential purposes in your country?	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. *[We have taken non-residential loans to mean commercial in this context]*
What is/are the most common mortgage product(s) in your country?	Initial fixed rate products.
What is the typical/ average maturity for a mortgage in your country?	25 years.
What is/are the most common ways to fund mortgage lending in your country?	Retail deposits and wholesale funding.
What is the level of costs associated with house purchase in your country (taxes and other transaction costs)?	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
What is the level (if any) of government subsidies for house purchases in your country?	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

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
AUSTRIA	83,960	86,281	87,622	90,710	96,925	101,169	107,354	112,666	119,774	125,528	135,896	142,173
BELGIUM	172,049	183,615	189,484	196,877	207,117	220,114	233,224	246,528	263,419	275,378	291,948	308,579
BULGARIA	3,589	3,573	3,507	3,499	3,522	3,700	4,190	4,715	6,384	7,031	8,086	9,390
CROATIA	8,368	8,321	8,161	7,998	7,845	6,975	7,017	7,178	7,632	8,260	9,004	9,932
CYPRUS	12,545	12,679	11,854	11,655	11,661	11,515	11,123	8,670	8,605	8,649	8,385	8,386
CZECHIA	25,556	27,851	27,222	28,732	32,085	34,940	40,555	43,984	48,658	51,174	60,632	65,497
DENMARK	228,743	230,741	231,850	239,403	238,848	243,751	250,708	255,215	262,611	270,820	281,740	284,146
ESTONIA	5,882	5,846	5,896	6,064	6,323	6,661	7,107	7,603	8,119	8,656	9,449	10,488
FINLAND	81,781	86,346	88,313	89,762	91,955	94,056	96,129	97,781	100,354	103,610	107,759	109,315
FRANCE	843,200	870,040	814,627	833,120	866,401	899,358	954,226	1,009,562	1,078,645	1,136,990	1,214,582	1,280,950
GERMANY	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	1,629,423	1,744,433	1,842,773
GREECE	78,393	74,634	71,055	69,408	67,593	61,397	58,812	56,766	52,707	46,133	30,891	29,753
HUNGARY	21,950	19,985	18,499	17,146	14,943	14,024	13,602	13,604	13,715	13,321	14,660	14,204
IRELAND	100,588	97,462	94,862	90,593	87,898	86,195	84,045	83,301	81,637	80,891	79,634	78,130
ITALY	367,645	365,588	361,390	359,137	362,332	369,520	375,425	378,966	383,515	391,515	409,868	426,959
LATVIA	5,991	5,334	5,062	4,703	4,503	4,412	4,362	4,102	4,177	4,178	4,505	4,713
LITHUANIA	5,945	5,884	5,901	6,006	6,179	6,597	7,194	7,786	8,457	9,176	10,237	11,471
LUXEMBOURG	20,255	21,715	23,389	25,038	26,599	28,314	30,656	33,062	35,651	38,957	42,464	44,596
MALTA	2,893	3,088	3,278	3,592	3,905	4,204	4,548	4,949	5,459	5,824	6,459	7,910
NETHERLANDS	687,077	693,716	685,024	687,229	693,883	704,238	713,806	726,392	736,279	751,949	785,477	813,300
POLAND	71,883	79,434	80,812	82,555	88,390	89,592	93,111	96,728	104,146	104,607	111,423	106,167
PORTUGAL	113,916	110,520	106,585	102,469	98,516	95,377	94,093	93,952	93,846	96,176	98,149	101,700
ROMANIA	7,596	8,767	9,257	10,105	11,522	12,893	14,262	15,785	16,999	18,354	20,347	21,432
SLOVAKIA	12,320	13,701	15,304	17,364	19,714	22,508	25,383	28,271	31,001	33,787	37,677	41,602
SLOVENIA	5,164	5,259	5,307	5,348	5,525	5,717	5,976	6,239	6,587	6,862	7,479	8,215
SPAIN	612,657	594,405	569,692	552,613	526,105	511,253	497,711	494,459	487,561	481,913	487,146	486,890
SWEDEN	308,498	334,922	340,379	339,152	375,277	387,000	401,977	409,876	423,397	469,091	490,385	474,525
EURO AREA 19	4,376,043	4,420,966	4,353,468	4,389,099	4,462,590	4,559,506	4,689,983	4,847,042	5,036,226	5,235,596	5,512,438	5,757,904
EU 27	5,052,226	5,134,560	5,073,155	5,117,689	5,235,022	5,352,379	5,515,406	5,694,126	5,919,770	6,178,254	6,508,715	6,743,197
ICELAND	8,289	8,061	8,941	9,167	9,688	11,851	12,091	12,351	13,104	12,711	14,952	15,897
NORWAY	227,272	260,725	245,449	241,128	242,633	274,257	270,151	280,500	298,318	299,365	328,387	324,846
SWITZERLAND	665,927	702,335	720,066	763,933	853,457	884,018	832,915	896,413	960,608	n/a	n/a	n/a
UNITED KINGDOM	1,439,814	1,501,265	1,483,422	1,612,453	1,755,378	1,546,503	1,542,945	1,574,861	1,709,024	1,669,740	1,861,750	1,835,703
AUSTRALIA	952,297	999,257	862,191	956,789	1,018,576	1,106,598	1,124,025	1,115,281	1,134,377	1,183,189	1,296,938	1,373,512
BRAZIL	78,710	95,089	104,595	135,687	117,305	157,747	143,958	134,780	141,340	111,840	129,174	164,836
CANADA	814,996	867,566	817,605	896,116	887,681	1,004,421	996,750	991,832	1,123,183	n/a	n/a	n/a
JAPAN	1,795,943	1,593,818	1,268,756	1,275,745	1,431,968	1,550,537	1,451,780	1,601,853	1,702,550	1,689,996	1,689,435	n/a
RUSSIA	41,841	57,739	67,238	56,579	56,366	78,449	83,379	88,621	120,740	111,767	151,272	191,161
SINGAPORE	56,266	68,439	69,869	81,663	88,973	94,261	94,862	100,555	102,563	96,339	109,271	122,148
SOUTH KOREA	259,170	282,893	282,700	341,207	383,224	430,012	451,945	473,021	488,895	508,714	545,521	561,593
TURKEY	29,989	36,146	37,048	44,270	45,096	44,167	42,105	31,208	29,982	30,637	19,621	18,035
USA	7,888,477	7,561,392	7,215,575	8,186,393	9,232,847	9,754,767	8,714,389	9,496,699	n/a	n/a	n/a	n/a

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:
- Australia
- Brazil
- Croatia
- Denmark
- Iceland
- Japan
- Lithuania
- Luxembourg
- Slovenia
- Sweden
- United Kingdom

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 the US, all mortgage credit lending series has been discontinued by the source as of 2019

2. Change in Outstanding Residential Loans

End of period, EUR million

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
AUSTRIA	3,952	2,321	1,341	3,088	6,215	4,244	6,185	5,312	7,108	5,754	10,368	6,277
BELGIUM	10,326	11,566	5,869	7,393	10,240	12,997	13,110	13,304	16,891	11,959	16,570	16,631
BULGARIA	-125	-16	-66	-8	23	178	491	525	1,669	647	1,055	1,304
CROATIA	105	-70	-234	-194	-130	-787	153	190	430	512	744	928
CYPRUS	624	134	-825	-199	6	-146	-392	-2,453	-65	44	-264	1
CZECHIA	1,428	2,296	-630	1,510	3,353	2,855	5,616	3,428	4,675	2,516	9,457	4,865
DENMARK	4,707	1,998	1,110	7,553	-555	4,903	6,957	4,507	7,396	8,208	10,920	2,406
ESTONIA	-91	-36	51	168	259	338	446	496	516	537	794	1,039
FINLAND	5,034	4,565	1,967	1,449	2,193	2,101	2,073	1,652	2,573	3,256	4,149	1,556
FRANCE	48,000	26,840	-55,413	18,493	33,281	32,957	54,868	55,336	69,083	58,345	77,592	66,368
GERMANY	11,588	21,070	23,969	28,588	42,046	47,445	51,909	67,177	84,447	98,989	115,010	98,340
GREECE	-2,114	-3,759	-3,579	-1,646	-1,815	-6,196	-2,585	-2,046	-4,059	-6,574	-15,242	-1,138
HUNGARY	-2,708	-1,965	-1,486	-1,353	-2,203	-919	-423	3	111	-395	1,339	-456
IRELAND*	-2,455	-3,126	-2,600	-4,269	-2,695	-1,703	-2,150	-744	-1,664	-746	-1,257	-1,504
ITALY	15,534	-2,057	-4,198	-2,253	3,195	7,188	5,905	3,541	4,549	8,001	18,353	17,091
LATVIA	-568	-657	-272	-359	-200	-91	-50	-260	75	1	327	208
LITHUANIA	-117	-55	25	160	172	416	589	585	669	717	1,061	1,234
LUXEMBOURG	1,664	1,460	1,674	1,649	1,561	1,715	2,342	2,408	2,569	3,325	3,507	2,132
MALTA	227	195	190	314	313	299	344	401	510	365	635	1,451
NETHERLANDS	12,445	6,639	-8,692	2,205	6,654	10,355	9,568	12,586	9,887	15,670	33,528	27,823
POLAND	4,357	7,551	1,378	1,743	5,835	1,202	3,520	3,616	7,419	460	6,817	-5,257
PORTUGAL	-599	-3,396	-3,935	-4,116	-3,953	-3,139	-1,284	-141	-106	2,330	1,973	3,551
ROMANIA	833	1,171	490	848	1,417	1,371	1,369	1,523	1,214	1,355	1,993	1,085
SLOVAKIA	1,471	1,381	1,603	2,060	2,350	2,794	2,875	2,888	2,730	2,786	3,890	3,925
SLOVENIA	320	95	48	41	177	192	259	263	348	173	617	736
SPAIN	-7,776	-18,252	-24,713	-17,079	-26,508	-14,852	-13,542	-3,252	-6,899	-5,647	5,233	-256
SWEDEN	16,236	26,424	5,457	-1,227	36,125	11,722	14,977	7,883	13,538	45,568	21,294	-15,859
EURO AREA 19	97,465	44,929	-67,490	35,686	73,490	96,913	130,470	157,053	189,162	199,285	276,842	245,465
EU 27	122,297	82,317	-61,471	44,557	117,355	117,438	163,130	178,728	225,615	258,158	330,461	234,482
ICELAND	322	-227	880	225	522	2,162	240	260	753	1,500	2,241	945
NORWAY	17,686	33,453	-15,275	-4,322	1,506	31,624	-4,107	10,350	17,817	1,047	29,022	-3,541
SWITZERLAND	52,453	36,408	17,731	43,867	89,524	30,561	-51,103	63,498	64,195	n/a	n/a	n/a
UNITED KINGDOM	46,844	61,450	-17,842	129,031	142,925	-208,875	-3,558	31,916	134,164	-39,285	192,010	-26,047
AUSTRALIA	59,274	25,205	-87,411	29,249	456,449	87,968	17,107	-9,087	18,807	48,889	113,749	76,574
BRAZIL	19,184	16,060	9,065	30,503	-16,717	40,441	-13,789	-9,177	6,561	-29,501	17,334	35,662
CANADA	55,608	52,570	-49,960	78,511	-8,435	116,739	-7,670	-4,918	131,351	n/a	n/a	n/a
JAPAN	149,823	-202,902	-326,386	7,033	157,063	119,254	-99,135	151,099	102,339	-20,120	-561	n/a
RUSSIA	7,186	15,898	9,499	-10,659	-213	22,083	4,930	5,242	32,120	-8,970	39,504	39,889
SINGAPORE	n/a	12,173	1,430	11,794	7,310	5,288	601	5,693	2,008	-6,224	12,932	12,878
SOUTH KOREA	19,136	23,723	-193	58,508	42,017	46,787	21,933	21,076	15,874	19,818	36,807	16,072
TURKEY	1,560	6,157	902	7,222	827	-930	-2,062	-10,896	-1,226	655	-11,016	-1,586
USA	65,771	-327,085	-345,816	970,818	1,046,453	521,921	-1,040,378	782,310	n/a	n/a	n/a	n/a

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

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
AUSTRIA	14,501	15,441	15,874	16,877	21,166	20,363	28,130	28,106	30,568	38,069	37,204	34,579
BELGIUM	28,074	25,994	25,077	29,441	36,155	36,554	33,568	34,895	43,805	36,115	45,549	39,584
BULGARIA	656	599	635	697	973	1,157	1,620	1,709	1,793	2,013	2,767	3,417
CROATIA	n/a	753	549	530	669	1,721	663	974	1,159	1,592	1,595	2,662
CYPRUS	1,907	1,518	1,399	480	268	543	720	869	874	783	1,121	1,178
CZECHIA	4,757	4,566	6,404	6,446	7,984	10,384	11,207	11,871	10,694	10,062	17,915	6,995
DENMARK	24,095	43,199	24,700	35,303	50,700	40,526	40,661	39,100	74,476	55,830	56,922	69,878
ESTONIA	490	566	686	819	942	1,038	1,206	1,315	1,399	1,368	1,899	2,204
FINLAND	22,537	21,400	17,514	17,540	33,307	29,511	30,982	33,970	33,705	38,088	32,461	27,933
FRANCE	161,601	119,337	139,800	112,600	212,500	251,500	272,600	202,900	246,500	252,300	273,900	259,700
GERMANY	150,600	162,900	170,100	177,100	208,600	209,400	214,300	227,800	245,000	269,700	299,600	273,500
GREECE	n/a	n/a	n/a	n/a	447	471	518	553	587	640	973	1,213
HUNGARY	1,294	1,214	623	885	1,343	1,688	2,352	2,875	3,012	2,844	3,524	3,273
IRELAND	2,463	2,636	2,495	3,855	4,848	5,656	7,286	8,722	9,540	8,365	10,467	14,057
ITALY	53,148	28,578	25,910	31,848	61,850	79,092	70,499	67,860	71,616	76,338	79,049	69,450
LATVIA	160	176	221	247	271	363	419	n/a	n/a	n/a	n/a	n/a
LITHUANIA	876	856	856	876	1,050	1,218	1,338	1,459	1,478	1,582	2,195	2,443
LUXEMBOURG	5,065	5,523	4,817	5,694	6,347	7,134	7,250	8,680	9,407	10,685	11,243	9,337
MALTA	227	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
NETHERLANDS	68,942	46,664	36,700	48,550	63,474	80,977	100,972	107,080	122,626	138,957	163,181	154,114
POLAND	n/a	6,646	7,716	8,003	9,850	9,389	10,695	11,810	12,270	13,037	18,908	10,614
PORTUGAL	4,853	1,935	2,049	2,313	4,013	5,790	8,259	9,835	10,619	11,389	15,270	16,158
ROMANIA	1,472	1,455	1,521	1,542	2,516	2,470	2,656	2,688	2,696	2,504	3,953	3,840
SLOVAKIA	3,922	3,803	4,873	5,840	6,362	9,865	8,019	7,972	7,277	8,402	11,117	9,492
SLOVENIA	928	705	597	633	886	1,059	1,118	1,068	1,130	1,512	2,008	2,196
SPAIN	37,448	32,279	21,857	26,800	35,721	37,492	38,861	43,056	43,591	43,970	59,425	65,217
SWEDEN	38,887	40,616	46,498	51,168	60,761	59,341	59,871	55,755	55,165	61,206	68,059	63,943
EURO AREA 19	557,741	470,311	470,825	481,513	698,207	778,025	826,045	786,140	879,722	938,264	1,046,662	982,355
EU 27	633,674	574,595	563,425	587,996	833,317	904,836	956,180	913,855	1,041,896	1,092,851	1,226,643	1,146,978
ICELAND	n/a	n/a	858	994	1,769	11,562	13,978	16,558	n/a	n/a	n/a	n/a
UNITED KINGDOM	159,303	178,217	209,257	252,301	305,534	300,855	296,364	303,739	306,465	276,178	358,374	367,827
AUSTRALIA	165,721	191,521	205,474	224,757	242,678	239,637	250,892	218,192	197,826	234,556	352,165	367,151
BRAZIL	48,575	47,032	52,063	49,698	33,554	25,618	26,821	25,988	29,352	29,579	39,932	44,186
CANADA	n/a	195,557	182,258	172,343	218,526	228,136	223,819	189,081	216,977	n/a	n/a	n/a
JAPAN	179,473	196,531	158,455	136,253	148,309	202,497	166,748	157,653	171,814	172,041	166,558	n/a
RUSSIA	17,536	25,847	31,980	34,623	17,065	19,873	30,664	40,695	40,506	53,729	65,397	64,934
TURKEY	12,728	12,305	19,893	12,566	15,464	17,078	16,611	6,872	8,808	15,680	7,437	7,139
USA	1,073,994	1,650,062	1,423,086	978,547	1,563,767	1,865,571	1,781,889	1,886,876	n/a	n/a	n/a	n/a

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

1) Time series breaks:

- France (2007)
- The Netherlands (2003: change of source; 2004-2007: change of methodology)
- USA (2006)

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

- Brazil
- Czechia
- Denmark
- France
- Japan
- Luxembourg
- United Kingdom

3) Notes:

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

- Please note that the conversion to euros is based on the yearly average bilateral exchange rate (provided by the ECB)
- Please note that due to the conversion to euros, changes observed for countries not belonging to the euro area may be due to exchange rate fluctuations. To obtain values in national currency, please refer to the exchange rates used, on Table 29 of this publication.
- Data includes internal remortgaging for the following countries: Slovakia and Italy
- For Austria and Turkey the figure includes only new loans
- For Belgium the figure also includes external remortgaging
- For Spain the figure also includes credits to households.
- For Sweden only residential lending from mortgage credit institutions is included. Lending by banks is not included in the above. However, mortgage credit institutions are estimated to constitute around 75% of the total residential mortgage credit market.
- For Denmark the figure does not include second homes
- For Japan, the reference year is the Japanse Fiscal year, from April to March
- For US, the credit mortgage lending series has been discontinued by the source as of 2019

4. Representative Interest Rates on New Residential Loans

Annual average based on monthly figures, percent

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	TYPE
AUSTRIA	2.86	2.71	2.39	2.29	2.02	1.92	1.89	1.84	1.63	1.34	1.20	1.87	1
BELGIUM	3.81	3.63	3.45	3.17	2.49	2.11	2.09	1.91	1.78	1.57	1.46	2.14	1
BULGARIA	7.93	7.59	7.05	6.69	5.89	4.99	4.00	4.64	3.51	3.52	3.27	3.11	1
CROATIA	5.48	5.46	5.04	5.05	5.07	4.78	3.80	3.52	3.07	2.93	2.65	2.55	1
CYPRUS	5.31	5.33	5.03	4.43	3.59	3.06	2.77	2.41	2.12	2.10	2.17	2.55	2
CZECHIA	4.04	3.52	3.26	2.56	2.33	2.07	2.11	2.49	2.62	2.22	2.27	4.61	1
DENMARK	2.41	1.41	1.20	1.29	1.09	1.15	1.00	0.81	0.66	0.69	0.69	1.29	1
ESTONIA	3.42	2.86	2.54	2.43	2.25	2.28	2.34	2.59	2.54	2.48	2.15	2.68	1
FINLAND	2.50	1.97	1.98	1.80	1.35	1.16	0.95	0.86	0.73	0.69	0.77	3.30	1
FRANCE	3.80	3.56	3.19	2.96	2.32	1.88	1.60	1.55	1.36	1.26	1.15	1.47	1
GERMANY	3.84	3.06	2.76	2.49	1.95	1.76	1.83	1.87	1.52	1.25	1.26	2.33	1
GREECE	4.33	3.26	2.82	2.94	2.62	2.74	2.78	3.01	3.11	2.85	2.78	3.14	2
HUNGARY	10.46	10.51	9.85	8.48	6.21	5.32	4.70	4.43	4.86	4.56	4.43	7.35	2
IRELAND	3.46	3.28	3.44	3.42	3.49	3.26	3.19	3.01	2.93	2.81	2.73	2.71	1
ITALY	4.03	3.69	3.50	2.83	2.50	2.02	1.90	1.89	1.44	1.25	1.40	3.01	1
LATVIA	4.03	3.65	3.53	3.38	3.18	3.21	2.82	2.82	2.67	2.62	2.38	2.94	1
LITHUANIA	3.71	2.97	2.39	2.15	1.88	1.95	2.01	2.22	2.37	2.33	2.16	2.76	1
LUXEMBOURG	2.40	2.23	2.13	2.02	1.86	1.68	1.74	1.75	1.53	1.34	1.32	2.12	2
MALTA	3.38	3.40	3.03	2.85	2.99	2.84	2.83	2.71	2.58	2.60	3.01	2.87	1
NETHERLANDS	4.55	4.27	3.78	3.37	2.93	2.59	2.41	2.40	2.27	1.89	1.70	n/a	1
POLAND	6.70	6.95	5.14	4.10	4.40	4.40	4.40	4.40	4.32	3.47	3.06	7.70	1
PORTUGAL	3.74	3.89	3.26	3.21	2.38	1.90	1.59	1.38	1.10	0.80	0.83	3.24	2
ROMANIA	5.84	5.03	4.73	5.06	3.99	3.46	3.70	5.16	5.45	5.12	4.12	5.15	2
SLOVAKIA	4.84	4.69	4.07	3.39	2.72	1.97	1.82	1.58	1.41	1.17	1.02	1.93	1
SLOVENIA	3.98	2.98	3.30	2.92	2.55	2.29	2.46	2.45	2.21	2.01	1.71	3.65	1
SPAIN	3.37	3.30	3.04	2.96	2.24	2.01	1.95	1.97	1.99	1.73	1.49	1.96	2
SWEDEN	3.87	3.48	2.75	2.24	1.66	1.60	1.58	1.50	1.52	1.48	1.35	2.34	2
ICELAND	4.82	4.24	3.92	3.86	4.19	4.10	4.06	3.98	3.62	2.75	2.43	2.27	6
NORWAY	n/a	n/a	3.98	3.78	2.86	2.43	2.50	2.45	2.75	2.12	1.79	2.82	6
SWITZERLAND	2.39	2.18	2.02	1.89	1.77	1.63	1.53	1.45	1.37	1.27	1.19	1.33	6
UNITED KINGDOM	3.62	3.69	3.24	3.12	2.62	2.34	2.03	2.11	2.25	2.00	2.11	2.56	1
AUSTRALIA	6.54	5.68	5.10	5.08	4.83	4.51	5.51	4.65	4.15	3.65	3.45	5.97	2
BRAZIL	10.30	8.50	8.10	9.30	10.10	10.80	9.10	8.00	7.70	7.20	7.20	10.00	6
CANADA	n/a	n/a	3.14	3.05	2.70	2.70	2.89	3.44	3.30	2.55	n/a	n/a	1
JAPAN	2.32	1.95	1.87	1.62	1.52	1.06	1.23	1.36	1.21	1.31	1.33	1.60	6
RUSSIA	11.90	12.29	12.44	12.45	13.35	12.48	10.64	9.56	9.87	7.68	7.49	7.15	1
SOUTH KOREA	4.92	4.63	3.86	3.55	3.03	2.91	3.27	3.39	2.74	2.50	2.94	4.24	6
TURKEY	11.59	12.37	9.69	11.86	12.31	13.25	12.14	19.30	17.75	12.47	17.83	18.16	1
USA	4.45	3.66	3.98	4.17	3.85	3.65	3.99	4.54	3.94	3.11	2.96	5.34	5

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

1) Time series breaks:

- Czech Republic: 2013 (source was changed from 2013 to the Central Bank data)
- Croatia: 2012 (new series from 2012 onwards due to revised methodology)
- Iceland: 2005 (in 2004, the average is based on data between September and December)
- Romania: 2014 (change in the methodology of the NBR to reflect the changes in granting mortgages by currency)
- Slovakia: 2009 (before 2009, the reference currency for the interest rate was SKK)
- Slovenia: 2007 (before 2007, the reference currency for the interest rate was SIT)
- Sweden: 2005 (before 2005, the average was calculated with quarterly data)
- Japan: 2003 (the underlying mortgage products were changed due to a succession in Japan of government agencies dealing with housing finance)

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

- Czechia
- Greece
- Slovenia

3) Notes:

- For further details on the methodologies, please see "Annex: Explanatory Note on data"
- n/a: figure not available
- For national definitions of representative interest rates on new residential loans, please see the methodological Annex ("Explanatory Note on data")
- Type: The type of new residential loan related to the published representative interest rate is provided in the column "type". There are 6 main types:
  (1) Weighted average interest rate on loans to households for house purchase
  (2) Initial fixed period interest rate up to 1 year on loans for house purchase
  (3) Initial fixed period interest rate over 1 and up to 5 years on loans for house purchase
  (4) Initial fixed period interest rate over 5 and up to 10 years on loans for house purchase
  (5) Initial fixed period interest rate of over 10 years on loans for house purchase
  (6) Other
- For Iceland the number represents real interest rate

5. Amount of Gross Lending with a Variable Interest Rate

Fixation period of up to 1 year, %

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
AUSTRIA	74.9	78.3	81.4	84.0	76.1	63.6	51.8	43.5	43.6	37.6	38.0	39.6
BELGIUM	9.9	2.2	5.8	4.2	0.6	0.9	1.4	6.7	6.4	5.1	5.1	7.8
BULGARIA	97.2	94.7	96.8	96.1	93.4	97.2	98.5	98.6	99.0	98.1	98.2	95.0
CROATIA	63.3	60.4	70.5	72.2	77.5	50.7	30.7	15.7	13.3	20.3	14.9	9.0
CYPRUS	73.6	80.3	85.7	91.7	95.1	96.1	97.9	94.8	93.2	92.7	97.9	n/a
CZECHIA	56.4	n/a	34.2	8.5	5.8	4.1	2.7	3.0	3.1	2.4	2.5	5.0
DENMARK	n/a	n/a	n/a	23.0	14.1	17.8	19.2	15.5	18.9	25.7	24.1	38.7
ESTONIA	72.6	77.2	86.3	88.2	89.3	89.4	88.9	88.6	89.9	86.8	90.7	93.0
FINLAND	n/a	n/a	95.8	93.7	92.9	92.5	95.2	96.3	96.6	96.9	95.6	95.5
FRANCE	10.2	8.8	6.8	4.2	2.0	1.1	0.6	0.6	0.6	0.5	0.5	0.8
GERMANY	16.9	15.0	16.3	15.8	12.4	12.0	11.4	11.7	11.0	10.5	9.7	11.6
GREECE	79.2	88.6	87.8	90.3	92.4	85.6	82.0	85.7	83.9	61.6	56.5	44.4
HUNGARY	75.6	61.5	44.1	47.1	45.0	41.9	41.0	16.0	7.0	1.2	0.7	0.8
IRELAND	78.4	87.7	83.6	86.6	66.0	65.4	49.5	39.0	26.9	22.8	19.8	10.8
ITALY	n/a	n/a	n/a	77.7	47.9	37.5	33.3	33.3	29.4	18.5	17.1	40.0
LATVIA	90.4	91.7	96.4	96.3	95.3	92.7	93.8	95.7	95.8	94.1	95.7	93.9
LITHUANIA	77.0	78.4	83.6	89.2	88.1	85.8	91.1	97.3	98.4	97.2	97.6	96.0
LUXEMBOURG	85.3	72.4	68.8	74.8	52.1	45.0	42.3	46.9	39.0	33.9	35.0	46.2
MALTA	98.4	89.9	93.4	72.8	72.4	72.2	74.2	62.7	44.4	57.7	65.5	65.4
NETHERLANDS	21.9	23.1	24.3	19.6	14.5	13.7	13.7	16.2	18.6	14.8	11.8	14.3
POLAND	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	97.0	93.7	47.7
PORTUGAL	98.9	94.6	91.2	92.3	92.1	66.4	60.3	65.0	71.7	67.9	85.5	76.5
ROMANIA	n/a	n/a	n/a	88.0	85.0	93.0	93.0	75.0	77.0	71.0	73	60
SLOVAKIA	24.6	14.8	9.6	4.0	2.7	3.0	1.4	1.2	1.4	2.1	1.9	2.5
SLOVENIA	94.7	98.0	98.8	97.8	66.0	53.0	46.2	45.7	54.3	41.0	13.2	7.7
SPAIN	81.8	77.8	67.7	64.5	62.9	46.3	42.4	36.3	35.5	34.0	25.1	23.7
SWEDEN	53.8	56.3	64.3	75.7	73.0	76.0	71.7	68.8	59.3	48.4	43.5	63.7
NORWAY	n/a	n/a	n/a	93.0	90.0	92.0	94.0	94.0	95.0	94.0	95.0	96.0
UNITED KINGDOM	44.1	35.9	19.0	13.2	15.8	16.0	11.5	7.5	7.9	8.6	6.4	5.1
ICELAND	—	—	—	—	38.5	52.8	55.5	49.3	60.2	64.9	52.3	45.5
CANADA	n/a	n/a	16.6	26.9	33.7	18.3	18.4	27.6	10.9	n/a	n/a	n/a
JAPAN	54.5	58.0	49.7	52.5	56.5	50.2	50.7	60.5	63.1	70	76.2	n/a
SOUTH KOREA	n/a	n/a	n/a	n/a	n/a	61.0	71.1	64.8	53.0	63.8	76.8	75.3

Sources: *European Mortgage Federation National Experts, National Central Banks, Statistical Data Warehouse - ECB*

Note:
When available this dataset has been constructed on figures provided in the Quarterly Review

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

- Czechia
- French
- Portugal
- Slovenia
- United Kingdom

6. Average Amount of a Mortgage Granted

EUR

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
BELGIUM	—	—	134,975	138,084	144,159	149,126	154,717	158,649	162,494	176,622	184,317	194,042
CZECHIA	n/a	n/a	41,833	40,703	47,913	59,036	69,054	71,745	n/a	n/a	n/a	n/a
DENMARK	129,030	131,649	130,288	132,820	138,767	142,238	145,861	149,845	154,635	164,356	174,231	178,463
FINLAND	93,990	94,502	94,416	94,171	95,735	97,215	98,735	100,030	104,792	108,449	110,553	n/a
FRANCE	135,352	137,241	142,563	145,313	149,018	153,857	161,350	170,187	179,050	180,036	190,170	210,000
GERMANY	n/a	185,000	n/a	n/a	212,000	n/a	236,000	n/a	277,000	n/a	338,000	n/a
HUNGARY	16,358	15,108	13,945	15,322	17,032	18,944	21,670	n/a	n/a	n/a	n/a	n/a
IRELAND	172,462	166,056	166,450	174,269	180,963	191,719	209,373	216,941	222,965	234,869	240,654	267,072
LATVIA	30,709	25,445	27,438	30,315	31,390	25,206	285,931	37,407	n/a	n/a	n/a	n/a
NETHERLANDS	285,749	260,801	243,811	247,394	254,266	224,392	243,455	261,502	277,879	291,919	316,755	n/a
POLAND	50,445	47,493	47,604	49,364	50,633	50,562	57,369	59,493	64,658	66,523	73,188	72,479
ROMANIA	36,880	29,153	24,209	33,306	34,418	35,632	39,299	41,899	43,472	40,308	50,380	53,391
SLOVAKIA	55,141	53,692	59,267	62,091	59,035	n/a	n/a	n/a	n/a	n/a	n/a	n/a
SPAIN	111,922	103,438	100,011	102,253	106,736	109,785	117,199	124,265	125,615	134,738	137,920	145,467
ICELAND	n/a	n/a	72,842	72,003	52,278	96,354	120,664	121,582	n/a	n/a	216,241	212,288
NORWAY	n/a	131,236	n/a	n/a	116,653	n/a	n/a	123,470	n/a	n/a	n/a	n/a
UNITED KINGDOM	170,332	184,480	182,461	206,027	241,876	222,875	214,301	216,769	225,204	239,524	260,795	278,387
AUSTRALIA	224,878	240,677	220,343	220,594	239,968	244,373	245,927	243,527	n/a	n/a	n/a	n/a
BRAZIL	51,314	51,017	52,235	50,102	37,528	32,628	41,056	33,786	38,502	35,108	31,788	38,475
CANADA	n/a	130,525	126,283	122,825	132,199	133,549	138,835	137,028	145,357	n/a	n/a	n/a
JAPAN	286,139	312,713	244,794	231,274	253,220	290,624	283,245	281,104	312,573	324,727	311,303	n/a
RUSSIA	33,492	37,367	38,761	34,185	24,396	23,201	28,211	31,047	30,874	30,176	34,265	48,923
TURKEY	23,310	23,932	23,782	21,509	22,530	22,476	19,247	13,818	13,121	13,642	11,635	8,816

Source: *European Mortgage Federation National Experts, National Central Banks, Japan Housing Finance Agency*

Notes:

- Please note that the conversion to euros is based on the yearly average bilateral exchange rate (provided by the ECB)
- Please note that due to the conversion to euros, changes observed for countries not belonging to the euro area may be due to exchange rate fluctuations. To obtain values in national currency, please refer to the exchange rates used, on Table 29 of this publication.
- For Belgium it represents the average of the year for the purchase of a dwelling
- For Denmark the statistics includes only owner occupation from mortgage banks
- For Germany the statistics contain average amount of a mortgage for the purchase of a second hand single family house
- For the UK the figure represents the median advance mate to home-owner for house purchase activity

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

- Brazil
- Japan
- United Kingdom

7. Total Outstanding Non-Residential Mortgage Loans

Total Amount , End of the Year, EUR million

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
CZECHIA	12,010	12,023	12,035	13,544	14,435	16,446	19,358	19,997	29,510	31,965	35,516	38,569
DENMARK	133,754	138,160	145,158	151,264	143,427	148,532	148,608	149,845	154,635	164,356	160,316	126,550
ESTONIA	3,395	3,371	3,223	3,250	3,339	3,509	3,382	2,393	3,501	3,716	3,941	4,404
FINLAND	16,473	16,854	18,174	19,501	20,713	22,117	24,129	26,493	28,406	29,850	30,762	44,405
GERMANY	259,134	254,014	250,631	247,345	250,310	249,295	261,102	265,796	299,137	316,469	218,358	228,524
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	7,051	6,805	6,112	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
IRELAND	29,979	29,269	27,710	25,108	22,737	20,493	17,890	14,211	10,966	9,428	7,289	4,943
ITALY	73,234	93,216	87,260	79,915	87,372	81,591	n/a	n/a	n/a	n/a	n/a	n/a
LATVIA	3,144	2,582	2,298	2,034	1,898	2,255	2,025	1,664	n/a	n/a	n/a	n/a
MALTA	1,489	1,447	1,350	1,391	1,228	1,252	1,286	1,399	1,533	1,646	5,952	5,508
NETHERLANDS	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
POLAND	11,722	13,693	13,116	13,055	13,952	13,616	18,532	16,187	16,230	19,606	18,632	18,686
ROMANIA	20,140	19,966	19,244	17,763	16,887	15,409	14,189	14,427	15,000	14,986	15,410	17,605
SPAIN	339,739	235,151	159,599	134,581	129,690	115,889	185,105	166,228	156,024	150,562	139,701	131,310
ICELAND	13,660	11,430	11,332	11,092	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
NORWAY	12,391	14,195	13,626	13,550	13,027	13,752	13,399	19,556	19,215	19,012	20,523	20,644
AUSTRALIA	375,709	398,830	482,944	524,797	558,371	599,575	589,029	588,282	610,387	620,659	683,702	n/a
BRAZIL	13,329	15,885	16,508	20,555	16,862	20,783	15,034	10,439	7,490	4,498	4,531	6,568
CANADA	220,568	249,441	242,341	280,904	291,451	339,483	345,150	379,414	439,130	n/a	n/a	n/a
JAPAN	265,850	237,219	188,247	190,401	232,126	257,421	247,373	268,369	277,828	264,773	255,036	n/a
RUSSIA	3,534	3,327	3,080	2,573	1,711	1,693	1,081	1,773	2,765	2,190	2,833	2,665
SINGAPORE	20,854	25,999	27,000	27,522	31,144	31,753	30,950	30,481	30,284	27,817	31,309	33,470
USA	2,544,633	2,496,135	2,445,870	2,916,811	3,478,185	3,831,895	3,462,965	3,988,682	n/a	n/a	n/a	n/a

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

1) Time series breaks

- Latvia: 2003 (due to a change in the statistical source)

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

- Brazil
- Japan
- Singapore
- Spain

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 US, the credit mortgage lending series has been discontinued by the source as of 2019

8. Total Outstanding Residential Loans to GDP Ratio

%

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
AUSTRIA	27.1	27.1	27.1	27.2	28.2	28.3	29.1	29.2	30.1	33.1	33.8	31.8
BELGIUM	45.8	47.5	48.2	48.9	49.7	51.2	52.4	53.6	55.1	60.3	57.7	56.2
BULGARIA	8.7	8.5	8.3	8.1	7.7	7.6	8.0	8.4	10.4	11.5	11.9	11.1
CROATIA	18.4	18.6	18.2	17.9	17.1	14.7	14.2	13.8	13.9	16.4	15.8	14.8
CYPRUS	63.3	65.2	65.9	67.0	65.2	60.8	54.9	40.1	37.4	40.0	35.8	31.1
CZECHIA	15.5	17.1	17.1	18.2	18.9	19.7	20.9	20.8	21.6	23.7	25.5	23.7
DENMARK	92.3	90.6	89.6	90.1	87.5	86.1	85.0	84.4	84.8	86.9	83.7	75.6
ESTONIA	35.3	32.6	31.2	30.2	30.6	30.6	29.8	29.4	29.3	32.3	30.8	29.0
FINLAND	41.3	43.0	43.2	43.4	43.5	43.2	42.5	41.9	41.8	43.5	42.9	41.0
FRANCE	41.0	41.7	38.5	38.8	39.4	40.3	41.5	42.7	44.2	49.2	48.6	48.5
GERMANY	43.2	43.2	43.0	42.3	42.3	42.3	42.2	42.9	44.1	48.4	48.9	47.6
GREECE	38.6	39.6	39.5	39.2	38.3	35.2	33.2	31.6	28.8	27.9	16.9	14.3
HUNGARY	21.5	19.9	18.1	16.1	13.2	12.1	10.7	10.0	9.4	9.7	9.5	8.3
IRELAND	58.6	55.5	52.9	46.5	33.4	31.9	28.3	25.5	22.9	21.7	18.9	15.5
ITALY	22.3	22.5	22.4	22.1	21.9	21.8	21.6	21.4	21.3	23.6	23.1	22.4
LATVIA	30.5	24.1	22.2	19.9	18.3	17.4	16.2	14.1	13.6	14.2	13.7	12.1
LITHUANIA	18.7	17.4	16.7	16.4	16.5	16.9	17.0	17.0	17.2	18.5	18.4	17.2
LUXEMBOURG	45.7	46.7	47.6	48.3	49.1	50.4	52.7	54.8	56.8	60.7	57.9	57.1
MALTA	41.8	41.9	41.3	41.0	39.1	39.9	38.1	38.2	38.9	44.6	44.0	46.7
NETHERLANDS	105.6	106.2	103.7	102.3	100.6	99.4	96.7	93.9	90.6	94.4	91.7	86.4
POLAND	18.9	20.5	20.6	20.2	20.5	21.0	19.9	19.4	19.5	19.9	19.4	16.2
PORTUGAL	64.7	65.7	62.5	59.2	54.8	51.1	48.0	45.8	43.8	48.1	46.5	42.5
ROMANIA	5.8	6.6	6.4	6.7	7.2	7.6	7.6	7.7	7.6	8.4	8.5	7.5
SLOVAKIA	17.2	18.7	20.6	22.8	24.7	27.8	30.1	31.6	33.0	36.7	38.8	37.9
SLOVENIA	23.6	22.6	21.3	20.4	20.0	19.6	19.0	17.8	13.6	14.4	14.2	13.9
SPAIN	94.6	84.8	76.0	68.9	61.2	55.1	49.6	46.0	39.2	43.0	40.4	36.7
SWEDEN	74.7	77.9	77.0	77.3	82.4	83.0	83.7	87.1	88.8	97.6	91.2	84.6
EURO AREA 19	46.7	46.6	45.1	44.2	43.4	42.9	42.4	42.3	42.0	45.9	44.9	43.2
EU 27	46.4	46.5	45.1	44.3	43.7	43.3	42.7	42.5	42.2	46.1	45.0	42.7
ICELAND	75.8	70.2	73.7	68.0	61.3	63.0	55.2	55.5	59.1	77.1	68.5	60.0
NORWAY	63.4	65.8	62.4	64.1	69.8	82.2	76.5	75.8	82.5	94.1	80.6	58.9
SWITZERLAND	134.6	128.0	130.4	134.2	137.9	134.9	140.6	133.5	143.9	146.9	n/a	n/a
UNITED KINGDOM	74.9	70.9	70.3	69.4	65.9	62.9	64.6	64.1	66.5	69.2	69.1	n/a
AUSTRALIA	59.3	51.6	45.0	51.0	83.8	101.6	95.7	92.2	91.2	101.8	99.5	87.4
BRAZIL	4.2	4.9	5.6	7.2	7.2	9.7	7.9	8.3	8.4	8.8	9.5	9.2
JAPAN	40.3	32.8	32.5	34.7	35.9	34.4	33.4	37.7	37.4	n/a	n/a	n/a
RUSSIA	2.8	3.4	3.9	3.7	4.6	6.8	6.0	6.3	8.0	8.6	10.1	9.1
TURKEY	28.0	29.8	30.2	34.5	32.1	32.7	31.2	31.5	30.6	8.6	10.1	2.1
SINGAPORE	28.8	28.4	27.4	30.5	29.0	31.7	31.4	32.4	33.1	31.9	32.6	27.9
SOUTH KOREA	5.0	5.3	5.1	6.3	5.8	5.6	5.5	4.7	4.4	35.5	35.9	36.0
USA	70.4	59.8	56.9	62.0	56.3	57.8	50.5	54.6	n/a	n/a	n/a	n/a

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

1) Time series breaks:

- See Table 1

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

3) Notes:

- For further details on the methodologies, please see "Annex: Explanatory Note on data"
- n/a: figure not available
- Please note that the GDP at current prices has been taken in euros directly from Eurostat.
- See Tables 1 and 27 for further information on the data used.

9. Total Outstanding Residential Loans to Disposable Income of Households Ratio

%

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
AUSTRIA	44.3	43.8	44.4	44.7	47.1	47.3	48.5	49.3	50.6	53.3	57.5	54.7
BELGIUM	76.4	79.3	80.7	82.9	85.9	88.6	90.4	92.6	94.8	97.9	100.3	97.4
BULGARIA	14.0	13.8	13.4	13.3	12.9	12.9	13.6	n/a	n/a	n/a	n/a	n/a
CROATIA	29.2	30.0	29.2	29.2	27.7	24.1	23.4	22.7	23.0	25.4	24.9	25.9
CYPRUS	91.6	95.3	94.1	98.8	98.8	92.1	84.3	61.5	56.2	58.4	55.2	48.8
CZECHIA	28.0	30.7	31.0	33.5	35.8	37.3	39.4	39.0	40.5	41.7	44.5	42.3
DENMARK	189.4	186.8	184.6	188.1	180.0	175.5	174.7	173.0	172.7	177.2	175.4	168.1
ESTONIA	63.9	61.5	57.2	55.6	55.0	55.0	53.8	52.8	52.7	55.5	57.3	54.9
FINLAND	71.5	73.4	73.2	73.6	74.2	74.4	74.2	73.1	72.7	74.3	76.4	73.8
FRANCE	63.2	64.5	60.6	61.2	62.9	64.1	66.3	68.1	70.4	73.4	75.5	75.6
GERMANY	67.8	67.4	67.6	67.5	67.9	68.1	68.4	68.9	71.3	75.1	78.7	76.3
GREECE	55.2	59.0	60.2	58.7	57.3	52.8	50.7	48.4	43.2	38.9	24.3	21.4
HUNGARY	36.2	33.4	30.7	28.3	23.8	21.3	18.8	17.3	16.2	16.6	16.3	14.6
IRELAND	118.8	111.6	108.9	102.0	94.8	88.7	80.9	76.8	71.3	65.4	61.6	55.1
ITALY	32.7	33.4	32.9	32.4	32.3	32.6	32.4	32.1	32.3	33.9	34.2	33.5
LATVIA	49.9	41.0	37.5	32.9	29.8	27.7	26.0	22.8	22.1	21.5	21.8	19.4
LITHUANIA	28.9	27.4	26.3	26.6	26.6	26.4	27.6	28.1	28.0	28.0	29.3	28.5
LUXEMBOURG	117.1	120.0	121.8	125.8	131.7	136.1	138.1	143.1	146.6	151.6	163.2	152.2
NETHERLANDS	209.4	209.5	204.7	200.5	198.9	196.3	194.3	188.4	182.9	180.8	178.6	178.4
POLAND	30.9	33.3	33.4	33.0	34.3	34.5	33.3	32.9	33.2	32.3	33.2	28.4
PORTUGAL	89.5	89.3	86.9	83.7	77.8	72.6	69.4	66.4	63.5	65.6	64.4	62.2
ROMANIA	10.5	12.5	12.0	13.0	13.8	14.1	13.7	14.0	13.8	14.3	14.9	15.5
SLOVAKIA	29.3	31.7	35.3	39.1	42.2	46.7	50.2	51.0	53.3	56.9	62.2	59.7
SLOVENIA	21.9	22.9	23.1	23.0	23.3	23.1	23.1	22.7	22.6	22.3	22.9	23.4
SPAIN	88.2	90.3	86.9	84.2	77.1	73.0	68.8	66.5	62.4	64.9	64.2	59.6
SWEDEN	150.6	150.6	148.4	150.6	165.0	164.9	167.8	173.8	177.5	192.7	184.5	174.5
EURO AREA 19	70.5	71.1	69.7	69.3	69.0	68.7	68.7	68.7	69.3	72.1	73.4	70.7
EU 27	71.5	72.4	71.1	70.9	71.0	70.6	70.5	70.3	70.8	73.7	74.2	71.5
NORWAY	147.5	153.8	142.5	143.0	143.2	165.2	156.9	162.0	169.2	178.0	174.4	178.1
SWITZERLAND	206.2	209.8	214.6	222.0	217.9	227.7	218.2	240.0	243.3	n/a	n/a	n/a
UNITED KINGDOM	112.2	104.7	104.3	104.2	96.3	94.2	97.9	96.2	100.9	99.1	102.9	97.2
USA	90.2	75.8	74.5	80.3	72.7	74.4	64.8	70.0	n/a	n/a	n/a	n/a

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

1) Time series breaks:
- See Table 1

2) The series has been revised for at least two years in:
- See Table 1

3) Notes:
- For further details on the methodologies, please see "Annex: Explanatory Note on data"
- n/a: figure not available
- Please note that the disposable income of households at current prices has been taken in euros directly from AMECO.

10. Total Outstanding Residential Loans per Capita

Population over 18 years, EUR

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
AUSTRIA	12,255	12,506	12,602	12,930	13,664	14,075	14,812	15,458	16,356	17,059	18,392	19,142
BELGIUM	19,648	20,818	21,361	22,108	23,134	24,422	25,779	27,123	28,814	29,925	31,618	33,217
BULGARIA	581	581	574	577	585	620	709	805	1,099	1,220	1,412	1,662
CROATIA	2,397	2,381	2,318	2,266	2,234	2,017	2,075	2,151	2,290	2,450	2,696	3,108
CYPRUS	18,954	18,518	17,158	16,962	17,205	16,949	16,196	12,463	12,177	12,055	11,573	11,461
CZECHIA	2,958	3,213	3,137	3,317	3,703	4,036	4,684	5,078	5,609	5,886	6,983	7,693
DENMARK	52,589	52,702	52,546	53,801	53,198	53,692	54,733	55,293	56,528	58,033	60,110	60,179
ESTONIA	5,418	5,406	5,477	5,656	5,909	6,231	6,668	7,125	7,585	8,075	8,816	9,779
FINLAND	19,059	19,990	20,311	20,519	20,917	21,307	21,693	21,989	22,502	23,147	23,988	24,224
FRANCE	16,677	17,132	15,966	16,202	16,766	17,343	18,328	19,302	20,526	21,542	22,839	23,970
GERMANY	17,379	17,636	17,926	18,280	18,792	19,272	19,968	20,879	22,045	23,449	25,132	26,563
GREECE	8,553	8,173	7,840	7,710	7,545	6,893	6,616	6,400	5,947	5,204	3,494	3,416
HUNGARY	2,681	2,453	2,269	2,106	1,837	1,728	1,683	1,687	1,701	1,653	1,827	1,779
IRELAND	29,324	28,380	27,542	26,156	25,146	24,354	23,409	22,919	22,045	21,498	20,893	20,215
ITALY	7,454	7,401	7,277	7,094	7,147	7,294	7,408	7,478	7,633	7,798	8,216	8,572
LATVIA	3,494	3,150	3,019	2,841	2,750	2,729	2,737	2,603	2,676	2,699	2,935	3,103
LITHUANIA	2,368	2,375	2,404	2,487	2,573	2,778	3,069	3,364	3,673	3,984	4,442	4,965
LUXEMBOURG	50,225	52,227	54,839	57,208	59,127	61,324	64,541	68,145	71,839	76,906	82,597	85,310
MALTA	8,578	9,061	9,468	10,174	10,768	11,280	11,910	12,481	13,206	13,462	14,884	18,047
NETHERLANDS	52,234	52,381	51,443	51,338	51,507	51,925	52,189	52,656	52,877	53,442	55,442	56,915
POLAND	2,328	2,564	2,602	2,656	2,840	2,879	2,991	3,110	3,351	3,370	3,604	3,453
PORTUGAL	13,180	12,791	12,382	11,951	11,523	11,169	11,032	11,007	10,980	11,211	11,417	11,668
ROMANIA	465	539	570	624	714	804	895	996	1,079	1,170	1,308	1,400
SLOVAKIA	2,824	3,124	3,477	3,937	4,460	5,085	5,726	6,373	6,985	7,613	8,502	9,450
SLOVENIA	3,039	3,089	3,117	3,140	3,244	3,359	3,512	3,669	3,847	3,920	4,250	4,746
SPAIN	15,973	15,455	14,853	14,480	13,808	13,421	13,039	12,908	12,631	12,355	12,441	12,391
SWEDEN	41,152	44,281	44,624	44,089	48,348	49,451	50,763	51,241	52,434	57,562	59,876	57,490
EURO AREA 19	16,074	16,190	15,898	15,940	16,157	16,441	16,867	17,381	18,020	18,663	19,624	20,457
EU 27	14,120	14,315	14,108	14,171	14,462	14,744	15,165	15,626	16,221	16,882	17,782	18,433
ICELAND	34,822	33,628	36,932	37,318	38,894	46,846	46,762	46,073	47,430	51,647	51,471	54,326
NORWAY	59,715	67,412	62,481	60,540	60,047	67,159	65,455	67,321	70,932	70,456	76,732	75,252
SWITZERLAND	103,789	108,093	109,474	114,579	126,332	129,371	120,543	128,737	136,950	n/a	n/a	n/a
UNITED KINGDOM	28,908	29,913	29,332	31,620	34,125	29,827	29,550	29,975	32,344	31,490	35,012	n/a
AUSTRALIA	34,650	35,443	29,881	31,003	55,279	59,133	59,093	57,790	57,930	59,687	65,430	67,576
BRAZIL	563	668	720	918	791	1,048	943	870	900	704	803	1,016
JAPAN	16,818	14,939	11,898	11,967	13,430	14,533	13,598	15,000	15,950	15,784	n/a	n/a
RUSSIA	358	495	577	486	486	679	725	774	1,060	987	1,345	1,683
TURKEY	599	708	711	831	829	795	742	538	508	510	322	292
SINGAPORE	13,233	15,617	15,619	17,952	19,248	19,973	19,989	21,029	21,157	19,908	23,608	25,337
SOUTH KOREA	6,471	6,972	6,886	8,200	9,097	10,106	10,529	10,912	11,186	11,583	12,398	12,674
USA	33,424	31,686	29,917	33,574	37,467	39,186	34,701	37,532	n/a	n/a	n/a	n/a

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

1) Time series breaks:

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

- Singapore
- South Korea

3) Notes:

- For further details on the methodologies, please see "Annex: Explanatory Note on data"
- n/a: figure not available
- Please note that the population concerns residents who are more than 18 years old

B — THE HOUSING MARKET

11. Owner Occupation Rate

%

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
AUSTRIA	52.4	57.5	57.3	57.2	55.7	55.0	55.0	55.4	55.2	55.3	54.2	51.4
BELGIUM	71.8	72.4	72.3	72.0	71.4	70.9	72.4	72.3	71.3	71.1	71.3	72.5
BULGARIA	87.2	87.4	85.7	84.3	82.3	82.3	82.9	83.6	84.1	84.3	84.9	85.0
CROATIA	90.1	89.6	88.5	89.7	90.3	90.0	90.5	90.1	89.7	91.3	90.5	91.1
CYPRUS	73.5	73.2	74.0	72.9	73.0	72.5	70.7	70.1	67.9	68.6	69.8	69.6
CZECHIA	80.1	80.4	80.1	78.9	78.0	78.2	78.5	78.7	78.6	78.9	78.3	77.1
DENMARK	68.7	66.0	64.5	63.3	62.7	61.7	62.2	60.5	60.8	59.3	59.2	59.6
ESTONIA	83.5	82.2	81.1	81.5	81.5	81.4	81.8	82.4	81.7	81.4	81.6	82.0
FINLAND	74.1	73.9	73.6	73.2	72.7	71.6	71.4	71.6	71.1	70.7	70.3	69.5
FRANCE	63.1	63.7	64.3	65.0	64.1	64.9	64.4	65.1	64.1	63.6	64.7	63.4
GERMANY	53.4	53.3	52.6	52.5	51.9	51.7	51.4	51.5	51.1	50.5	49.5	46.7
GREECE	75.9	75.9	75.8	74.0	75.1	73.9	73.3	73.5	75.4	73.9	73.3	72.8
HUNGARY	89.3	89.8	88.7	88.2	86.3	86.3	85.2	86.0	91.7	91.3	91.7	90.1
IRELAND	70.2	69.6	69.9	68.6	70.0	69.8	69.5	70.3	68.7	69.3	70.0	70.4
ITALY	73.2	74.2	73.3	73.1	72.9	72.3	72.4	72.4	72.4	75.1	73.7	74.3
LATVIA	82.8	81.5	81.2	80.9	80.2	80.9	81.5	81.6	80.2	81.2	83.2	83.1
LITHUANIA	92.2	91.9	92.2	89.9	89.4	90.3	89.7	89.9	90.3	88.6	89.0	88.6
LUXEMBOURG	68.2	70.8	73.0	72.5	73.2	73.9	74.7	71.2	70.9	68.4	71.1	72.4
MALTA	80.2	81.8	80.3	80.0	80.8	81.4	81.3	81.6	79.8	81.9	81.9	82.6
NETHERLANDS	67.1	67.5	67.1	67.0	67.8	69.0	69.4	68.9	68.9	69.1	70.1	70.6
POLAND	82.1	82.4	83.8	83.5	83.7	83.4	84.2	84.0	84.2	85.6	86.8	87.2
PORTUGAL	75.0	74.5	74.2	74.9	74.8	75.2	74.7	74.5	73.9	77.3	78.3	77.8
ROMANIA	96.6	96.6	95.6	96.2	96.4	96.0	96.8	96.4	95.8	96.1	95.3	94.8
SLOVAKIA	90.2	90.4	90.5	90.3	89.3	89.5	90.1	91.3	90.9	92.3	92.9	93.0
SLOVENIA	77.5	76.2	76.6	76.7	76.2	75.1	75.6	75.1	74.8	74.6	76.1	75.4
SPAIN	79.7	78.9	77.7	78.8	78.2	77.8	77.1	76.3	76.2	75.1	75.8	76.0
SWEDEN	69.7	70.1	69.6	69.3	66.2	65.2	65.2	64.1	63.6	64.5	64.9	64.2
EURO AREA 19	66.9	67.2	66.9	66.9	66.4	66.3	66.1	66.2	65.8	66.0	65.8	n/a
EU 27	70.8	71.0	70.7	70.7	70.2	70.1	70.0	69.9	69.8	70.0	69.9	69.1
ICELAND	77.9	77.3	77.5	78.2	77.8	78.7	74.1	73.6	73.6	73.6	73.6	n/a
NORWAY	84.0	84.8	83.5	84.4	82.8	82.9	81.5	81.3	80.3	80.8	n/a	n/a
SWITZERLAND	43.8	43.8	44.0	44.5	43.4	42.5	41.3	42.5	41.6	42.3	42.2	n/a
UNITED KINGDOM	67.9	66.7	64.6	64.4	63.5	63.4	65.0	65.2	65.2	65.2	65.2	64.3
AUSTRALIA	68.8	67.5	67.2	67.2	67.5	67.5	66.2	66.2	66.3	66.3	n/a	n/a
TURKEY	59.6	60.7	60.7	61.1	60.4	59.7	59.1	59.0	58.8	57.9	57.5	n/a

Source: *Eurostat*

1) Time series breaks:

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

- France
- Greece

3) Notes

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

12. Building Permits

Number issued

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
AUSTRIA	46,402	41,249	47,144	50,011	52,275	61,380	71,805	59,718	69,642	63,581	60,146	46,922
BELGIUM	44,352	46,811	49,141	54,903	46,181	50,977	50,388	62,656	55,851	55,299	57,633	51,584
BULGARIA	10,973	10,616	12,278	15,848	17,264	18,157	5,562	5,956	5,980	5,860	7,074	8,169
CROATIA	13,470	9,742	7,744	7,743	6,950	9,398	12,509	11,719	15,370	14,083	16,654	18,700
CYPRUS	7,506	7,172	5,341	4,933	5,014	5,354	5,728	6,408	7,218	7,023	8,164	7,604
CZECHIA	39,656	34,006	29,475	28,127	28,886	31,002	32,069	30,702	31,606	31,747	33,995	31,990
DENMARK	18,930	13,720	12,338	17,422	24,301	32,023	28,289	41,848	39,752	36,317	35,047	32,802
ESTONIA	2,830	3,035	3,049	3,941	5,588	6,021	7,877	6,990	8,025	8,833	8,773	6,763
FINLAND	34,567	31,825	26,680	29,370	32,014	40,208	48,353	41,137	37,754	39,986	45,045	37,072
FRANCE	517,800	480,800	423,900	382,000	406,000	465,200	494,500	464,700	452,200	393,900	469,500	485,700
GERMANY	228,311	241,090	272,433	285,079	313,296	375,388	347,882	346,810	360,493	368,589	380,736	354,162
GREECE	15,114	9,066	5,675	4,620	4,618	4,305	4,930	5,685	6,044	6,915	9,888	9,793
HUNGARY	12,488	10,600	7,536	9,633	12,515	31,559	37,997	36,719	35,123	22,556	29,941	35,002
IRELAND	12,522	6,741	7,199	7,411	13,044	15,950	20,776	28,939	38,461	42,371	42,991	34,177
ITALY	112,391	82,058	53,408	46,796	42,920	44,583	51,859	54,664	55,104	49,100	59,839	60,381
LATVIA	2,022	2,262	2,369	2,295	2,193	1,998	2,766	2,750	2,973	2,670	2,967	2,941
LITHUANIA	4,951	5,768	7,118	6,868	7,028	8,397	7,682	8,082	7,651	9,021	12,297	8,426
LUXEMBOURG	4,323	4,305	3,761	6,360	4,558	4,846	5,048	5,468	5,619	5,112	6,105	4,709
MALTA	3,955	3,064	2,705	2,937	3,947	7,508	9,822	12,885	12,485	7,837	7,578	9,523
NETHERLANDS	55,804	39,354	27,233	41,320	55,599	53,567	69,741	70,034	58,108	67,151	75,833	64,508
POLAND	85,270	75,923	67,175	65,449	72,293	80,796	89,888	95,463	101,595	107,590	133,270	98,040
PORTUGAL	17,481	11,430	7,416	6,858	8,169	8,219	14,044	20,046	23,835	24,791	28,060	29,963
ROMANIA	39,424	37,852	37,776	37,672	39,112	38,653	41,603	42,694	42,541	41,311	51,287	43,660
SLOVAKIA	11,641	11,614	13,180	14,310	17,642	20,224	18,472	20,574	20,385	19,050	22,915	19,201
SLOVENIA	3,285	2,700	2,549	2,359	2,441	2,617	2,713	2,834	2,572	2,583	2,914	3,128
SPAIN	78,286	44,162	34,288	34,873	49,695	64,038	80,786	100,733	106,266	85,535	108,318	108,923
SWEDEN	29,512	26,006	34,476	43,140	57,150	66,844	73,489	64,056	55,286	66,365	76,699	60,000
NORWAY	27,735	30,142	30,252	27,130	30,927	36,530	35,294	31,527	31,774	29,931	30,126	29,864
SWITZERLAND	n/a	n/a	n/a	n/a	51,126	51,653	49,985	48,305	43,953	44,378	n/a	n/a
AUSTRALIA	153,755	157,676	183,275	210,007	239,735	234,869	224,609	211,539	176,611	186,961	227,856	190,903
SINGAPORE	20,551	18,441	18,034	8,454	5,438	7,452	5,103	20,227	16,282	n/a	n/a	n/a
SOUTH KOREA	549,594	586,884	440,116	515,251	765,328	726,048	653,441	554,136	487,975	457,514	545,412	521,791
TURKEY	650,127	771,878	839,630	1,031,754	897,230	1,006,650	1,405,447	669,165	319,720	555,132	724,096	693,698
USA	624,100	829,700	990,800	1,052,124	1,182,582	1,206,037	1,281,214	1,328,335	1,385,202	1,471,100	1,737,000	1,665,100

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

1) Time series breaks:

- Austria: 2005 (source was changed from 2005 onwards)
- Denmark: 2012 (source was changed from 2012 onwards)

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

- Australia
- Austria
- Belgium
- Denmark
- Turkey

3) Notes:

- For further details on the methodologies, please see “Annex: Explanatory Note on data”
- n/a: figure not available
- For Ireland: new data series taking into account the number of dwelling units
- For Italy: 2017 figure takes into accout the first 9 months

13. Housing Starts

Number of projects started per year

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
BELGIUM	41,574	44,818	44,696	52,826	43,520	n/a	n/a	n/a	n/a	n/a	n/a	n/a
BULGARIA	7,096	6,789	7,669	8,355	12,308	12,495	3,681	3,824	4,223	4,116	5,084	5,468
CZECHIA	27,535	23,853	22,108	24,351	26,378	27,224	31,521	33,121	38,677	35,254	44,992	41,546
DENMARK	18,753	15,134	11,491	17,227	20,622	29,186	25,793	36,698	40,456	35,755	38,972	29,967
ESTONIA	1,150	1,577	2,343	3,841	3,882	2,706	3,611	n/a	n/a	6,833	10,433	4,716
FINLAND	33,014	30,040	27,841	25,109	31,893	36,490	44,251	45,676	39,110	40,662	47,894	37,752
FRANCE	431,100	382,800	358,000	337,100	341,400	370,500	435,400	402,700	387,500	351,400	391,600	369,300
GREECE	29,974	18,817	11,748	9,619	9,264	9,286	10,336	13,337	17,432	19,731	29,124	29,124
HUNGARY	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
IRELAND	4,365	4,042	4,708	7,717	8,747	13,234	17,572	22,467	26,237	21,686	30,724	26,957
ITALY	123,499	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
MALTA	3,955	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
POLAND	162,200	141,798	127,392	148,122	168,403	173,932	205,990	221,907	237,281	223,842	277,400	200,300
ROMANIA	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
SLOVAKIA	12,740	13,090	14,758	15,836	19,640	21,441	19,930	22,055	21,516	19,744	24,497	20,608
SLOVENIA	3,844	3,066	3,142	2,762	2,749	2,975	3,231	3,765	3,438	3,819	4,423	5,410
SPAIN	86,238	51,735	35,721	38,018	50,565	66,906	68,905	103,380	108,608	87,475	113,675	107,506
SWEDEN	26,684	21,314	30,472	36,717	48,152	61,365	63,681	53,127	49,358	55,448	67,645	56,400
ICELAND	142	466	769	582	1,612	1,133	2,836	2,525	3,792	2,406	4,338	n/a
NORWAY	28,225	29,202	27,634	25,404	30,150	31,278	30,719	29,496	25,037	23,695	25,425	23,199
UNITED KINGDOM	113,270	101,030	124,790	140,760	148,160	155,150	164,110	168,610	153,000	129,700	177,920	178,110
AUSTRALIA	154,801	154,104	171,934	203,799	227,495	234,113	216,550	223,888	175,356	182,523	230,730	182,908
BRAZIL	395,433	371,284	342,283	295,914	263,157	217,437	226,208	277,295	282,718	266,664	505,847	n/a
CANADA	193,950	214,827	187,923	189,329	195,535	197,916	219,763	212,843	208,685	217,880	271,198	261,849
JAPAN	841,246	893,002	987,254	880,470	920,537	974,137	946,396	952,936	883,687	812,164	865,909	860,828
SINGAPORE	20,736	21,395	20,357	11,571	8,082	6,918	5,397	13,121	19,467	n/a	n/a	n/a
SOUTH KOREA	424,269	480,995	425,944	507,666	716,759	657,956	544,274	470,706	478,949	526,311	583,737	383,404
USA	609,000	780,000	925,000	1,003,000	1,112,000	1,174,000	1,203,000	1,249,900	1,290,000	1,379,600	1,601,000	1,552,600

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

1) Time series breaks
- Denmark: 2012 (source was changed from 2012 onwards)

2) The series has been revised for at least two years in:
- Denmark
- Spain
- Sweden
- United Kingdom
- Australia

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

14. Housing Completions

Number of projects completed per year

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
AUSTRIA	37,200	40,600	40,300	60,400	47,700	47,700	52,100	52,100	56,200	55,200	63,600	n/a
BULGARIA	13,953	9,970	9,250	9,993	7,806	9,342	2,205	2,324	3,052	3,376	3,898	5,390
CROATIA	12,390	11,792	10,090	7,805	8,059	7,809	8,496	10,141	11,726	11,957	n/a	n/a
CYPRUS	9,091	6,565	3,833	2,718	2,390	2,570	2,993	3,866	4,420	6,351	7,457	n/a
CZECHIA	28,630	29,467	25,238	23,954	25,095	27,322	28,575	33,868	36,406	34,412	34,581	39,460
DENMARK	13,417	17,632	16,644	15,704	15,007	21,138	24,459	28,889	34,362	38,300	36,569	39,701
ESTONIA	1,918	1,990	2,079	2,756	3,969	4,732	5,890	6,472	7,014	7,579	6,735	6,521
FINLAND	32,571	32,597	29,071	28,907	27,448	29,593	34,934	42,010	42,892	38,536	37,148	41,460
FRANCE	381,620	399,056	404,355	404,355	413,627	399,564	n/a	n/a	n/a	n/a	n/a	n/a
GERMANY	183,110	200,466	214,817	245,325	247,722	277,691	284,816	287,352	293,002	306,376	293,393	295,275
GREECE	53,099	32,999	19,773	11,680	7,739	6,425	6,342	7,016	8,707	10,684	13,291	16,909
HUNGARY	12,655	10,560	7,293	8,382	7,612	10,032	14,389	17,681	21,127	28,158	19,898	20,540
IRELAND	6,994	4,911	4,575	5,518	7,219	9,842	14,321	17,899	21,047	20,514	20,473	29,822
ITALY	123,499	133,900	118,600	103,600	86,200	81,600	n/a	n/a	n/a	n/a	n/a	n/a
LATVIA	2,662	2,087	2,201	2,630	2,240	2,197	2,271	2,966	3,315	3,101	2,853	3,140
LITHUANIA	3,733	3,198	3,467	4,456	5,707	7,051	6,420	6,434	6,510	6,814	6,492	8,694
LUXEMBOURG	2,162	2,304	2,642	3,357	3,091	3,856	n/a	n/a	n/a	n/a	n/a	n/a
NETHERLANDS	57,703	48,668	49,311	44,041	48,381	54,849	62,982	66,585	71,548	69,985	71,221	74,560
POLAND	131,148	152,904	145,388	143,235	147,821	163,394	178,342	185,170	207,224	221,401	234,916	238,621
PORTUGAL	26,069	19,671	12,713	8,297	7,126	7,867	8,156	10,627	12,591	16,914	19,081	19,742
ROMANIA	45,419	44,016	43,587	44,984	47,017	52,206	53,301	59,725	67,488	67,816	71,420	n/a
SLOVAKIA	14,608	15,255	15,100	14,985	15,471	15,672	16,946	19,071	20,171	21,490	20,649	20,220
SLOVENIA	5,468	4,307	3,484	3,163	2,776	2,975	3,044	3,037	3,415	3,540	4,032	4,286
SPAIN	157,405	114,991	64,817	46,822	45,152	40,119	54,610	64,354	78,789	85,945	91,390	89,107
SWEDEN	20,064	25,993	29,225	29,164	34,603	42,441	48,227	54,876	55,659	50,479	50,089	54,300
ICELAND	565	1,076	934	1,149	1,120	1,513	1,768	2,303	3,033	3,816	3,190	n/a
NORWAY	20,046	26,275	28,456	28,072	28,265	29,286	31,470	32,830	30,397	29,164	28,398	28,010
SWITZERLAND	47,174	43,134	50,166	49,162	53,126	52,034	50,209	53,199	48,040	49,577	45,908	46,505
UNITED KINGDOM	114,020	115,590	109,450	117,820	142,480	141,880	162,470	165,490	177,880	146,630	174,930	177,820
AUSTRALIA	154,374	146,227	153,827	177,814	197,253	213,644	213,181	219,588	202,308	181,501	178,774	172,388
CANADA	175,623	180,093	185,494	181,428	194,461	187,605	190,923	200,262	187,177	198,761	222,670	219,942
RUSSIA	786,000	838,000	929,000	1,124,000	1,195,000	1,167,000	1,139,000	1,075,741	1,120,333	1,121,601	1,204,647	1,290,006
SINGAPORE	12,469	10,329	13,150	19,941	18,971	20,803	16,449	9,112	7,527	4,061	6,388	9,526
SOUTH KOREA	338,813	365,053	395,519	431,339	460,153	514,775	569,209	636,494	518,084	471,079	431,394	413,798
TURKEY	556,769	556,331	726,339	777,596	732,948	754,174	833,517	894,240	738,816	599,999	626,910	642,269
USA	585,000	649,000	764,000	884,000	968,000	1,059,000	1,153,000	1,184,900	1,255,100	1,286,900	1,341,000	1,390,500

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

1) Time series breaks
- Denmark: 2012 (source was changed from 2012 onwards)
- Netherlands: 2012 (due to a change in methodology)

2) The series has been revised for at least two years in:
- Australia
- Denmark
- Portugal
- United Kingdom

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

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
AUSTRIA	2.9	-1.4	-0.2	-0.4	1.0	2.3	6.3	2.0	3.9	1.6	1.7	-3.3
BELGIUM	-2.6	0.2	-2.8	5.7	1.0	2.9	0.8	2.6	4.7	-7.2	8.5	0.6
BULGARIA	-14.2	-26.7	-4.0	-3.3	-10.3	102.1	19.2	-2.2	6.6	0.7	-11.0	-9.2
CYPRUS	-16.1	-19.0	-25.6	-7.9	-4.5	29.8	16.0	37.5	21.3	-5.9	-2.6	6.0
CZECHIA	-5.9	2.7	-7.7	10.2	15.6	5.3	10.6	5.2	2.0	3.8	-1.6	-1.4
DENMARK	15.8	-5.5	-7.8	6.8	5.3	4.7	11.1	4.8	6.3	9.1	9.9	7.8
ESTONIA	9.7	10.5	15.4	19.6	7.5	16.5	11.1	-1.5	11.7	14.0	-7.7	6.5
FINLAND	5.9	-1.6	-5.5	-5.4	1.7	10.6	4.1	4.7	-4.2	-3.2	5.8	7.0
FRANCE	0.9	-2.2	-0.4	-1.9	-1.1	2.8	6.1	3.2	2.5	-12.2	14.8	-1.8
GERMANY	10.0	3.3	-0.8	2.9	-0.7	5.0	0.9	3.0	1.5	3.4	0.7	-2.1
GREECE	-14.6	-37.9	-31.1	-53.3	-25.8	-11.5	-7.0	22.5	16.9	14.6	27.3	36.1
HUNGARY	-27.4	-9.9	-6.0	11.0	16.8	9.7	16.0	11.3	7.0	21.5	-10.4	12.3
IRELAND	-30.1	-24.3	5.8	15.1	6.5	21.1	21.7	20.4	-0.3	-7.5	2.2	28.2
ITALY	-6.6	-9.0	-5.4	-7.9	-2.4	0.1	1.1	1.1	-0.8	-7.4	25.9	10.3
LATVIA	-1.8	25.8	-6.6	10.9	5.3	-17.7	-0.2	26.3	3.8	-1.9	-15.4	-11.2
LITHUANIA	1.0	2.3	11.5	16.9	14.9	6.8	-4.6	5.9	14.7	4.1	-1.4	18.2
LUXEMBOURG	5.0	4.5	21.1	11.2	8.9	9.4	-8.8	3.3	8.3	-7.0	3.0	-6.9
MALTA	5.8	-23.9	-2.8	-0.2	33.7	26.6	36.4	20.3	0.1	-21.3	4.2	-3.5
NETHERLANDS	-3.6	-12.9	-12.2	6.1	20.1	21.7	12.3	9.3	3.4	-0.6	3.3	0.7
POLAND	1.2	5.1	0.9	8.4	-11.5	-2.9	-2.6	-10.1	4.3	-0.3	11.5	-0.6
PORTUGAL	-11.7	-7.3	-14.2	-0.8	1.0	6.3	8.7	6.6	1.4	-6.6	8.9	3.6
ROMANIA	-10.2	5.1	-11.2	4.5	5.2	12.1	10.0	-24.9	23.7	6.6	5.6	10.5
SLOVAKIA	4.7	4.8	12.0	-15.1	-1.6	24.3	0.0	9.4	2.9	9.7	3.4	4.1
SLOVENIA	-12.4	-12.5	-7.6	-6.7	0.7	-0.8	5.3	1.9	8.4	-0.2	0.5	8.9
SPAIN	-12.2	-5.3	-7.6	9.9	-3.2	8.9	13.4	13.0	6.6	-11.2	-5.3	3.1
SWEDEN	9.3	-13.9	4.0	18.2	15.8	9.8	7.1	-6.4	-6.5	1.6	10.3	5.1
EU 27	-0.6	-3.5	-3.1	1.0	0.5	5.3	4.7	3.6	2.3	-3.3	6.6	1.5
EURO AREA 19	-0.9	-3.3	-3.1	0.0	-0.2	5.1	4.4	4.5	2.3	-4.2	6.7	1.1
ICELAND	5.4	7.2	10.5	15.1	-2.2	25.9	21.1	15.7	31.1	1.2	-4.4	-6.3
NORWAY	17.0	10.9	5.3	-1.4	3.2	6.6	7.3	-6.5	-1.1	-4.0	0.6	-1.4
SWITZERLAND	4.5	2.1	3.3	1.7	1.7	1.8	1.2	-1.9	-3.4	-1.1	n/a	n/a
UNITED KINGDOM	1.6	-2.4	5.7	5.0	5.3	3.9	9.2	5.1	0.1	n/a	n/a	n/a
TURKEY	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
UNITED STATES	-0.7	12.3	11.9	3.6	10.1	6.5	4.0	-0.5	-1.0	7.2	10.6	-10.7

Sources: *Eurostat, OECD, ONS*

1) Time series breaks:

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

- Austria
- Belgium
- Cyprus
- Denmark
- Estonia
- EU 27
- Euro area 19
- France
- Germany
- Greece
- Iceland
- Ireland
- Italy
- Latvia
- Lithuania
- Luxembourg
- Malta
- Norway
- Romania
- Slovenia
- Spain
- United Kingdom
- United States

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

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
AUSTRIA	4,441	4,474	4,519	4,562	4,608	4,656	4,707	4,758	4,821	4,875	4,938	n/a
BELGIUM	5,131	5,180	5,229	5,273	5,315	5,357	5,404	5,454	5,513	5,576	5,628	5,681
BULGARIA	3,900	3,909	3,918	3,928	3,935	3,944	3,951	3,959	3,971	3,985	4,002	n/a
CROATIA	1,924	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
CYPRUS	431	437	441	444	446	449	452	455	460	466	473	n/a
CZECHIA	4,700	4,729	4,754	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
DENMARK	2,786	2,797	2,812	2,827	2,844	2,861	2,878	2,901	2,919	2,941	2,749	2,780
ESTONIA	656	658	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
FINLAND	2,556	2,580	2,600	2,618	2,634	2,655	2,680	2,705	n/a	2,770	2,794	2,816
FRANCE	32,860	33,212	34,378	34,750	35,182	35,425	35,720	36,330	36,609	36,997	37,196	37,553
GERMANY	40,630	40,806	40,995	41,221	41,446	41,703	41,968	42,235	42,513	42,804	43,082	43,362
GREECE	6,425	6,458	6,478	6,489	6,497	6,504	6,510	6,517	6,526	6,536	6,550	6,567
HUNGARY	4,349	4,394	4,402	4,408	4,415	4,420	4,427	4,439	4,455	4,474	4,501	4,593
IRELAND	1,997	1,997	1,998	1,999	2,002	2,008	2,018	2,032	2,049	2,065	2,081	2,100
ITALY	31,791	31,576	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
LATVIA	1,019	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
LITHUANIA	1,283	1,289	1,298	1,403	1,413	1,428	1,445	1,451	1,501	1,517	1,534	1,556
LUXEMBOURG	223	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
MALTA	224	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
NETHERLANDS	7,266	7,386	7,449	7,535	7,588	7,641	7,741	7,815	7,892	7,966	8,046	8,125
POLAND	13,560	13,723	13,853	13,983	14,119	14,272	14,440	14,615	14,813	15,015	15,340	n/a
PORTUGAL	5,879	5,898	5,910	5,920	5,926	5,933	5,942	5,955	5,968	n/a	n/a	n/a
ROMANIA	8,722	8,761	8,800	8,841	8,882	8,929	8,977	9,031	9,093	9,156	9,587	n/a
SLOVAKIA	2,036	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
SLOVENIA	845	n/a	n/a	845	n/a	n/a	n/a	852	n/a	n/a	845	n/a
SPAIN	25,209	25,271	25,245	25,209	25,171	25,129	25,097	25,075	25,067	25,068	25,076	n/a
SWEDEN	4,524	4,551	4,634	4,669	4,717	4,796	4,859	4,925	4,978	5,037	5,096	5,159
ICELAND	131	131	132	132	134	135	138	140	144	146	151	159
NORWAY	2,369	2,399	2,427	2,456	2,485	2,516	2,548	2,582	2,610	2,638	2,667	2,694
SWITZERLAND	4,131,3	4,177,5	4,235	4,289	4,352	4,421	4,469	4,529	4,582	4,637	4,688	4,694
UNITED KINGDOM	26,855	27,008	27,151	27,306	27,498	27,713	27,954	28,203	28,472	28,740	28,793	n/a
AUSTRALIA	7,760	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
BRAZIL	62,117	63,768	65,130	67,039	68,037	68,899	69,471	71,015	72,395	n/a	n/a	n/a
JAPAN	n/a	n/a	60,629	n/a	n/a	n/a	n/a	62,407	n/a	n/a	n/a	n/a
RUSSIA	60,800	61,500	61,300	62,900	64,000	64,900	65,900	66,900	67,500	69,000	70,200	71,200
SINGAPORE	269	278	289	309	327	348	364	370	374	376	382	391
SOUTH KOREA	17,739	18,082	18,414	18,742	16,367	16,692	17,123	17,633	18,127	18,526	18,812	n/a
TURKEY	19,482	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
USA	132,168	132,600	133,199	133,946	134,764	135,660	136,570	138,489	139,641	140,803	141,947	143,445

Source: *European Mortgage Federation National Experts, National Statistics Offices, Japanese Ministry of Internal Affairs and Communication, US Bureau of Census*

1) Time series breaks
- Denmark: 2007 (due to a change in methodology)
- Netherlands: 2012 (due to a change in methodology)
- Norway: 2006 (due to a change in methodology)

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

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

17. Number of Transactions

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
BELGIUM	128,621	124,358	124,356	135,180	103,514	119,064	123,851	130,326	149,667	122,501	143,327	150,625
CROATIA	2,169	2,357	1,997	2,410	1,672	2,791	2,429	2,880	3,458	3,458	n/a	n/a
CYPRUS	7,018	6,269	3,767	4,527	4,952	7,063	8,734	9,242	10,366	7,968	10,347	13,409
DENMARK	44,064	45,506	46,566	52,490	63,186	63,679	69,818	68,602	70,851	82,263	88,448	61,499
ESTONIA	23,327	26,760	30,141	31,093	33,081	33,410	51,780	59,303	59,188	60,180	71,732	61,092
FINLAND	69,099	71,645	63,440	58,520	61,954	61,334	62,654	60,800	63,298	70,794	76,281	70,630
FRANCE	1,092,500	938,900	716,000	689,000	795,000	843,000	964,000	975,000	1,077,000	1,024,000	1,174,000	1,115,000
GERMANY	571,000	576,000	565,000	562,000	577,000	575,000	567,000	575,000	608,000	599,000	600,000	480,000
GREECE	83,665	57,650	49,774	43,443	54,631	60,540	69,826	79,532	96,662	74,769	104746	n/a
HUNGARY	110,024	105,700	104,129	127,592	154,212	160,975	165,782	172,846	154,940	145,300	168,000	142,000
IRELAND	17,571	22,101	26,305	38,955	47,330	46,416	52,119	53,644	57,654	49,711	58,168	63,544
ITALY	598,224	444,018	403,124	417,524	444,636	516,574	542,700	578,647	603,541	557,926	748,523	784,486
LATVIA	42,051	43,941	49,141	49,973	48,397	52,152	52,640	49,093	49,890	50,839	56,502	52,752
LUXEMBOURG	5,749	5,474	5,471	6,477	6,269	6,333	7,404	7,545	7,295	6,835	6,836	5,872
MALTA	n/a	n/a	n/a	n/a	n/a	6,502	n/a	n/a	n/a	n/a	n/a	n/a
NETHERLANDS	120,739	117,261	110,094	153,511	178,293	214,793	241,860	221,603	221,012	236,841	226,087	193,103
POLAND	86,897	116,555	124,685	130,656	160,789	173,467	188,596	211,597	213,763	204,709	248,694	n/a
PORTUGAL	76,928	62,585	66,058	69,839	90,509	107,490	129,834	151,209	154,865	137,513	165,682	167,900
ROMANIA	371,569	434,954	473,319	454,001	483,699	521,805	587,017	603,592	622,260	589,748	712,313	702,731
SLOVENIA	7,634	10,571	9,239	10,364	12,030	14,018	15,246	13,902	14,071	11,612	13,927	12,869
SPAIN	349,118	363,623	300,568	365,621	401,713	457,738	532,261	582,888	569,993	487,354	674,249	717,558
SWEDEN	144,946	143,675	151,582	159,536	168,298	160,200	164,735	158,233	163,784	173,602	187,624	163,261
ICELAND	5,970	6,749	7,459	8,314	10,247	11,164	10,546	11,169	10,904	12,749	14,257	10,315
NORWAY	110,844	113,276	109,437	112,147	119,681	121,578	114,382	118,196	119,950	125,302	128,113	110,788
UNITED KINGDOM	884,790	932,480	969,750	1,218,750	1,229,580	1,235,020	1,223,090	1,191,510	1,176,860	1,045,130	1,476,020	1,242,880
AUSTRALIA	397,086	403,675	469,584	511,653	521,214	471,267	478,410	432,340	434,412	470,264	636,884	514,971
BRAZIL	946,633	921,879	996,719	991,933	894,125	785,160	653,291	769,200	762,332	840,365	1,222,656	1,097,689
JAPAN	166,800	154,900	169,467	155,900	154,200	158,100	147,500	159,867	n/a	n/a	n/a	n/a
RUSSIA	2,745,842	3,063,489	3,032,834	3,448,283	2,806,901	2,861,989	2,863,164	3,122,824	3,025,069	3,130,095	3,575,093	2,815,558
SINGAPORE	32,640	37,873	22,728	12,848	14,117	16,378	25,010	22,139	19,150	20,909	33,557	21,890
TURKEY	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	1,499,316	1,491,856	1,485,622
USA	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	6,462,000	6,891,000	6,410,000

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

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

2) The series has been revised for at least two years in:
- Belgium
- Brazil
- Denmark
- Greece
- Ireland
- Spain
- United Kingdom

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

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
AUSTRIA	81.6	87.6	92.1	95.3	100.0	108.5	114.3	119.6	123.7	132.4	148.0	163.2
BELGIUM	93.5	97.4	99.2	100.7	100.0	104.4	108.8	113.1	119.4	121.1	131.5	142.7
BULGARIA	100.0	98.1	95.9	97.3	100.0	107.0	116.3	122.7	128.5	129.7	135.6	156.2
CROATIA	110.7	108.9	104.6	103.0	100.0	100.9	104.8	111.1	121.1	130.4	145.0	170.1
CYPRUS	128.6	121.4	113.9	104.2	100.0	98.2	98.7	99.9	101.9	102.6	102.7	106.7
CZECHIA	93.2	92.4	92.5	96.1	100.0	111.0	120.3	132.1	143.9	156.8	197.3	211.0
DENMARK	95.9	91.6	92.3	93.8	100.0	103.7	108.4	112.8	116.0	121.0	135.2	136.5
ESTONIA	69.3	74.4	82.3	93.6	100.0	104.8	110.5	117.4	125.3	132.8	152.8	186.8
FINLAND	98.2	99.8	101.4	100.8	100.0	100.9	101.9	103.0	103.9	105.1	109.1	109.4
FRANCE	107.3	105.0	103.8	101.9	100.0	100.9	104.0	107.1	110.6	116.8	124.6	132.4
GERMANY	87.4	90.0	92.7	95.6	100.0	106.0	112.1	120.7	128.9	138.5	154.1	168.0
GREECE	144.4	127.6	113.7	105.3	100.0	97.5	96.6	98.3	105.4	110.1	118.5	132.4
HUNGARY	93.1	88.3	81.8	84.9	100.0	117.7	134.3	160.1	192.2	205.5	234.8	285.4
IRELAND	87.8	75.9	77.0	89.7	100.0	107.5	119.1	131.3	134.4	134.8	146.0	164.0
ITALY	119.7	116.7	109.1	104.0	100.0	100.3	99.2	98.6	98.5	100.4	103.0	106.9
LATVIA	85.6	90.8	98.2	93.8	100.0	107.8	116.2	129.2	139.9	145.8	162.1	184.5
LITHUANIA	89.8	89.6	90.7	96.5	100.0	105.4	114.8	123.2	131.6	141.2	163.8	195.0
LUXEMBOURG	83.1	86.6	90.9	94.9	100.0	106.0	112.0	119.9	132.0	151.1	172.2	188.6
MALTA	105.9	92.4	92.2	94.5	100.0	105.5	111.0	117.4	124.7	128.9	135.4	144.5
NETHERLANDS	110.2	103.1	96.3	97.2	100.0	105.0	112.9	123.1	131.6	141.9	163.4	185.6
POLAND	107.9	100.7	95.5	98.5	100.0	100.7	107.3	116.9	129.3	145.0	160.6	177.4
PORTUGAL	102.1	94.9	93.1	97.0	100.0	107.6	118.9	129.9	143.4	154.8	172.8	192.4
ROMANIA	104.8	99.5	99.3	97.2	100.0	106.0	112.4	118.6	122.7	128.4	134.1	143.7
SLOVAKIA	100.7	99.6	99.0	98.3	100.0	104.9	111.9	118.1	126.9	142.1	175.5	212.9
SLOVENIA	120.4	112.1	106.2	99.2	100.0	103.3	111.8	121.6	129.7	135.7	151.3	173.7
SPAIN	118.0	107.7	101.4	98.9	100.0	101.9	104.3	107.8	111.3	110.0	112.4	118.0
SWEDEN	82.6	81.7	84.5	90.4	100.0	108.4	117.4	117.4	120.5	128.6	150.3	156.8
EU 27 (simple average)	100.8	97.5	96.3	97.1	100.0	104.9	111.1	118.2	125.8	133.0	147.9	164.6
Euro area 19 (simple average)	101.0	98.7	97.6	98.0	100.0	104.0	109.4	115.7	119.9	126.0	138.8	158.3
ICELAND	75.4	80.6	85.2	92.4	100.0	109.8	131.2	142.0	148.3	157.8	177.6	214.8
NORWAY	82.4	88.7	88.0	95.6	100.0	112.2	111.1	114.3	117.5	127.9	134.9	137.3
SWITZERLAND	87.9	92.1	94.9	97.5	100.0	98.5	102.1	104.6	106.9	112.5	112.5	119.8
UNITED KINGDOM	84.8	85.2	87.4	94.4	100.0	107.0	111.9	115.4	116.5	119.9	130.6	143.7
AUSTRALIA	79.6	81.2	87.1	93.0	100.0	106.5	112.8	108.1	112.3	120.8	149.9	145.1
BRAZIL	75.2	84.4	92.3	99.0	100.0	97.4	95.4	95.6	98.7	106.1	115.0	117.8
JAPAN	99.4	98.3	99.9	99.5	100.0	101.1	101.7	102.6	102.3	101.8	108.7	115.5
RUSSIA	77.7	87.7	94.1	99.6	100.0	97.3	96.4	99.2	105.0	112.7	135.0	165.9
SINGAPORE	101.4	103.8	107.1	104.0	100.0	96.9	95.8	104.3	107.1	109.5	121.1	131.5
SOUTH KOREA	96.1	94.7	95.0	96.6	100.0	100.7	102.2	103.3	103.0	108.5	119.2	113.7
TURKEY	60.6	66.8	75.3	86.6	100.0	112.2	122.4	127.8	140.6	183.3	292.8	784.3
UNITED STATES	81.6	84.0	90.1	94.8	100.0	105.6	112.2	119.1	125.2	135.0	157.7	179.6

Sources: *European Mortgage Federation, National Statistics Offices, OECD, Central Statistical Bureau of Latvia (LV), Federal Housing Finance Agency (US), Ministry of Land Infrastructure Transport and Tourism (JP)*

1) Time series breaks

- Croatia: 2022 (change of source)
- Czech Republic: 2008 (change in source)
- Iceland: 2005 (change of source)
- Portugal: 2005
- Australia: 2010

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

- Australia
- Brazil
- Cyprus
- Estonia
- Greece
- Hungary
- Ireland
- Norway
- Poland
- Slovakia
- United Kingdom

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 Czechia, the index covers second-hand flat prices in CZ and also new flat prices Prague.
- For Denmark, second homes and flats are included.
- For Estonia, both new and existing dwellings are included.
- For Finland, the index covers the change in the prices of single-family houses and single-family house plots.
- For France, the index covers the weighted average of existing homes and the price index for new housing.
- For Greece, the index covers only urban areas.
- For Poland, the index includes only transactions in the secondary market, covering the 7 biggest cities in Poland.
- For Sweden, the index covers one- and two-dwellings buildings.
- For the UK, the index covers only market prices, self-built dwellings are excluded
- For Australia, the index is a weighted average of the seven largest cities
- For Japan, the index covers monthly price indices for detached houses.
- For Brazil: Prices grew fast due to pent-up demand unleashed after 2006, when inflation and interest rates where controled.
- For US: the index includes purchase-only

19. Nominal House Price Index - cities

2015 = 100

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
AUSTRIA												
Vienna	74.6	86.4	93.8	97.8	100.0	103.8	105.4	110.9	116.3	124.1	137.5	150.9
Rest of the country	81.1	89.9	92.3	95.1	100.0	109.0	114.4	124.1	127.4	137.0	154.5	171.3
BELGIUM												
Brussels	93.4	97.5	101.5	97.2	100.0	103.0	104.3	106.9	112.7	121.9	126.4	n/a
BULGARIA												
Sofia	92.1	91.1	90.3	92.9	100.0	111.0	123.1	131.3	141.8	133.6	140.3	163.5
Varna	93.9	90.3	89.5	91.9	100.0	107.6	119.0	124.2	133.1	120.0	126.3	142.7
Plovdiv	98.1	94.3	91.7	90.8	100.0	105.6	115.9	123.2	135.0	132.0	136.9	153.6
CROATIA												
Zagreb	112.1	109.9	103.5	102.2	100.0	100.7	105.1	116.4	131.8	142.5	158.3	193.9
Adriatic Coast	110.7	108.7	105.5	103.4	100.0	101.3	105.7	111.4	119.1	126.6	142.5	160.9
Rest of the country	108.6	108.0	103.6	102.8	100.0	99.2	99.7	100.3	104.1	114.5	124.4	146.2
CYPRUS												
Nicosia	129.7	124.1	115.4	105.6	100.0	97.6	98.5	99.9	101.5	102.7	102.2	105.2
Limassol	123.6	118.9	113.2	104.1	100.0	99.1	101.3	104.8	109.8	111.7	115.5	123.2
Larnaca	138.1	126.9	115.7	104.9	100.0	98.8	98.0	99.6	102.4	104.7	106.3	109.7
CZECHIA												
Prague	91.3	93.3	95.2	96.0	100.0	110.7	119.6	131.6	n/a	n/a	n/a	n/a
DENMARK												
Copenhagen	80.3	77.9	83.6	90.4	100.0	106.0	113.1	122.8	125.5	134.1	160.8	160.3
Aarhus	90.4	90.1	91.6	92.7	100.0	102.9	105.5	110.7	113.1	119.4	133.1	137.1
Odense	93.6	90.8	92.9	95.0	100.0	104.6	107.0	113.4	118.2	120.9	133.4	133.7
FINLAND												
Helsinki	93.1	95.4	99.2	99.7	100.0	102.8	106.3	122.8	126.9	132.5	140.7	139.9
Tampere	95.0	96.7	98.1	99.1	100.0	101.1	103.0	120.5	122.9	126.7	133.5	136.0
Turku	92.6	94.2	96.1	99.2	100.0	100.9	104.3	104.4	109.5	112.3	118.9	120.7
FRANCE												
Paris	104.5	103.4	103.5	101.6	100.0	103.1	110.5	117.8	125.4	134.3	134.3	132.8
Marseille	116.2	111.6	107.7	103.7	100.0	97.7	101.5	103.8	108.1	113.2	121.2	132.9
Lyon	96.6	100.6	100.4	100.4	100.0	102.8	110.0	119.7	132.4	146.2	153.1	153.8
GERMANY												
Aggregate seven largest Germany cities	77.1	81.9	86.7	92.1	100.0	109.8	122.4	132.2	137.4	144.1	158.2	170.7
GREECE												
Athens	150.6	132.9	116.5	105.6	100.0	98.1	97.1	99.8	110.4	119.0	130.5	148.5
Thessaloniki	144.0	124.5	113.2	105.7	100.0	96.6	95.2	96.3	103.0	108.1	116.2	130.7

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
HUNGARY												
Budapest	84.6	81.3	77.8	82.8	100.0	124.0	143.9	175.7	214.5	221.8	240.6	290.6
Debrecen	85.9	85.3	82.2	87.0	100.0	116.1	132.5	156.8	197.2	204.5	236.2	297.8
Szeged	93.2	90.7	87.5	90.4	100.0	114.7	135.7	160.9	206.0	215.2	252.5	328.8
ITALY												
Rome	113.0	113.5	109.3	105.4	100.0	95.1	92.0	89.8	87.5	86.1	85.7	87.0
Milan	101.1	100.8	99.1	100.5	100.0	99.2	99.3	100.2	101.9	103.5	106.1	114.9
Naples	108.9	106.2	100.8	101.5	100.0	97.6	96.9	96.8	96.5	92.2	93.4	92.3
IRELAND												
Dublin	75.5	66.7	73.2	91.0	100.0	105.1	115.0	124.9	124.9	124.2	133.3	147.0
NETHERLANDS												
Amsterdam	97.0	91.5	86.7	91.1	100.0	113.6	129.5	146.0	154.3	162.1	180.2	200.1
The Hague	108.3	100.8	93.9	96.2	100.0	108.3	120.3	135.4	146.1	157.1	179.9	199.7
Rotterdam	105.0	99.8	94.3	95.8	100.0	107.1	121.0	138.6	149.9	162.6	185.3	208.2
POLAND												
Cracovia	107.3	100.4	94.0	99.2	100.0	100.5	106.2	114.6	127.1	140.5	154.4	166.6
Lodz	104.4	101.3	95.6	96.1	100.0	95.9	101.0	107.0	115.3	131.4	156.4	177.3
Warsaw	113.5	103.6	101.1	101.7	100.0	98.7	108.5	123.7	139.2	158.4	173.8	193.9
PORTUGAL												
Lisbon	110.1	99.2	95.7	96.4	100.0	103.3	114.8	126.6	132.8	144.7	n/a	n/a
ROMANIA												
Bucarest	104.7	106.8	96.9	96.7	100.0	107.5	116.4	121.6	125.6	126.6	138.0	142.4
SLOVAKIA												
Bratislava	99.1	98.1	98.0	97.4	100.0	105.7	112.0	116.5	124.1	137.8	166.9	198.2
Košice	103.1	102.7	98.1	97.2	100.0	98.5	107.3	113.3	109.3	140.1	190.1	246.8
Prešov	110.3	107.8	105.5	102.7	100.0	105.2	111.7	117.3	139.0	154.1	211.3	276.8
SLOVENIA												
Ljubljana	123.7	116.2	102.8	95.0	100.0	106.0	120.0	134.5	137.9	142.8	161.1	183.8
SPAIN												
Barcelona	111.7	100.2	97.5	97.1	100.0	104.5	110.3	119.7	126.6	125.4	129.0	138.7
Madrid	123.5	110.3	100.3	98.7	100.0	106.2	113.0	120.5	126.1	124.3	126.3	132.1
Valencia	123.3	108.8	102.0	99.5	100.0	102.6	101.7	105.2	110.3	109.9	114.7	121.3
SWEDEN												
Stockholm	76.6	76.3	79.4	87.7	100.0	108.7	114.9	108.7	109.3	116.2	137.8	142.7
Malmö	91.9	88.4	90.1	93.7	100.0	111.3	121.8	126.0	131.6	142.1	167.8	174.9
Göteborg	83.1	82.4	85.6	90.6	100.0	106.6	117.6	118.5	122.3	129.2	147.6	154.5

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
ICELAND												
Reykjavik	71.0	77.2	83.1	91.7	100.0	110.5	131.8	139.7	144.8	152.8	171.4	212.5
NORWAY												
Oslo	75.3	84.3	79.3	90.0	100.0	126.0	112.7	119.8	126.5	141.7	144.8	147.3
Bergen	81.8	88.3	88.9	98.8	100.0	101.0	101.0	102.9	105.7	114.7	122.2	122.8
Trondheim	81.6	89.6	91.3	97.3	100.0	104.6	107.0	106.2	107.5	115.7	125.7	127.5
UNITED KINGDOM												
London	68.3	71.5	77.4	90.8	100.0	110.0	113.0	112.4	110.8	113.8	117.9	124.9
AUSTRALIA												
Canberra	91.8	92.2	93.7	95.2	100.0	104.9	109.5	110.9	115.6	124.9	163.4	157.2
Sydney	68.5	71.9	79.4	88.7	100.0	109.8	116.0	108.1	113.0	121.8	154.6	144.1
Melbourne	81.3	80.6	86.4	91.0	100.0	108.3	119.9	113.8	120.3	127.2	151.2	144.1
BRAZIL												
São Paulo	n/a	n/a	n/a	97.6	100.0	98.9	97.8	98.9	102.3	117.0	137.2	161.0
Rio de Janeiro	n/a	n/a	n/a	100.5	100.0	97.5	93.7	91.2	90.8	93.9	102.6	119.7
Belo Horizonte	n/a	n/a	n/a	101.5	100.0	97.0	94.8	94.1	95.2	99.3	104.3	115.2
JAPAN												
Tokyo	96.7	94.5	96.8	96.0	100.0	102.8	104.4	106.7	105.9	105.8	115.2	123.7
Osaka	102.4	100.4	100.4	99.1	100.0	100.3	102.2	104.4	104.0	104.0	111.8	119.3
Aichi	99.7	97.7	98.2	97.6	100.0	102.6	103.2	103.5	105.5	106.1	110.9	111.8
RUSSIA												
Moscow	79.6	84.7	89.8	94.6	100.0	101.0	99.4	100.8	107.4	113.9	142.6	167.6
St. Petersburg	82.8	92.5	97.0	99.7	100.0	102.2	103.2	110.4	116.2	125.8	157.3	193.1
SOUTH KOREA												
Seul	100.7	95.9	94.5	95.6	100.0	102.1	105.9	112.4	113.8	116.9	124.4	118.5
Busan	98.1	95.8	95.6	96.7	100.0	103.2	105.6	104.0	102.7	108.7	120.5	115.0
TURKEY												
Ankara	65.4	72.8	80.9	88.7	100.0	109.1	116.7	118.5	130.5	169.9	264.7	721.8
Istanbul	49.3	55.0	66.1	81.2	100.0	112.8	117.8	118.9	123.2	157.6	257.1	704.9
Izmir	62.4	67.6	77.0	87.0	100.0	116.1	137.7	145.8	160.9	208.2	330.1	885.7
USA												
Washington - DC	70.7	76.3	85.4	94.5	100.0	103.6	107.7	112.0	116.1	125.6	140.3	149.9
New York	92.9	93.0	95.1	97.2	100.0	103.9	109.5	114.8	117.8	124.1	139.1	153.5
Los Angeles	74.3	75.9	85.9	93.0	100.0	107.2	116.1	123.3	128.3	139.2	162.8	178.0

Sources: *European Mortgage Federation National Experts, National Central Banks, National Statistics Offices, Federal Housing Finance Agency (US), Ministry of Land Infrastructure Transport and Tourism (JP)*

1) Time series breaks:
- Croatia: 2022 (change of source)

2) The series has been revised for at least two years in:
- Australia
- Cyprus
- Hungary
- Ireland
- Poland
- Slovakia
- United Kingdom

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

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
AUSTRIA	6.3	7.3	5.2	3.5	4.9	8.5	5.3	4.7	3.4	7.0	11.8	10.3
BELGIUM	4.0	4.1	1.9	1.5	-0.7	4.4	4.2	3.9	5.6	1.4	8.6	8.5
BULGARIA	-5.5	-1.9	-2.2	1.4	2.8	7.0	8.7	5.5	4.8	0.9	4.5	15.2
CROATIA	0.2	-1.6	-3.9	-1.6	-2.9	0.9	3.8	6.1	9.0	7.7	7.3	17.3
CYPRUS	-3.3	-5.3	-6.5	-8.8	-4.3	-1.8	0.5	1.2	2.0	0.7	0.0	3.9
CZECHIA	-0.6	-0.8	0.1	3.8	4.1	11.0	8.4	9.8	8.9	9.0	25.8	6.9
DENMARK	-3.6	-4.5	0.8	1.5	6.7	3.7	4.5	4.1	2.8	4.3	11.7	1.0
ESTONIA	8.5	7.3	10.7	13.7	6.9	4.8	5.4	6.2	-31.8	6.0	15.1	22.2
FINLAND	2.7	1.6	1.6	-0.6	-0.8	0.9	1.1	1.0	0.9	1.2	3.8	0.3
FRANCE	3.7	-2.1	-1.2	-1.8	-1.9	0.9	3.0	3.0	3.2	5.6	6.7	6.3
GERMANY	2.4	3.0	3.0	3.1	4.6	6.0	5.8	7.7	6.8	7.4	11.3	9.0
GREECE	-5.5	-11.7	-10.9	-7.5	-5.0	-2.5	-1.0	1.8	7.2	4.3	7.3	11.7
HUNGARY	-1.8	-3.0	-6.1	3.3	18.1	17.3	13.4	18.5	18.4	9.1	11.9	21.5
IRELAND	-17.1	-13.5	1.3	16.5	11.6	7.3	10.9	10.2	2.4	0.4	8.2	12.3
ITALY	1.4	-2.5	-6.5	-4.7	-3.8	0.3	-1.1	-0.6	-0.1	1.9	2.6	3.8
LATVIA	5.8	6.1	8.2	-4.5	6.6	7.8	7.9	11.2	8.2	4.2	11.2	13.9
LITHUANIA	6.6	-0.2	1.2	6.4	3.7	5.4	8.9	7.3	6.8	7.3	16.1	19.0
LUXEMBOURG	3.7	4.2	5.0	4.4	5.4	6.0	5.6	7.1	10.1	14.5	13.9	9.6
MALTA	-1.4	3.1	-0.4	2.6	5.8	5.5	5.3	5.8	6.1	0.4	3.7	6.7
NETHERLANDS	-2.4	-6.5	-6.6	0.9	2.9	5.0	7.5	9.0	6.9	7.9	15.2	13.6
POLAND	-0.6	-8.3	-1.0	1.8	1.1	0.7	6.6	8.9	10.6	11.7	9.6	10.4
PORTUGAL	-4.9	-7.1	-1.9	4.2	3.1	7.6	10.5	9.3	10.4	8.0	11.6	11.3
ROMANIA	-12.3	-5.1	-0.3	-2.1	2.9	6.0	6.0	5.6	3.4	4.3	7.5	7.2
SLOVAKIA	-3.1	-1.2	-0.9	-0.8	0.9	4.9	6.7	5.5	7.5	11.9	23.7	21.3
SLOVENIA	2.7	-6.9	-5.2	-6.6	0.8	3.3	8.3	8.7	6.7	4.6	11.5	14.8
SPAIN	-5.6	-8.7	-5.8	-2.4	1.1	1.9	2.4	3.4	3.2	-1.1	2.1	5.0
SWEDEN	0.8	-1.1	3.4	7.0	10.7	8.4	8.3	0.0	2.6	6.7	16.9	4.3
ICELAND	4.6	6.9	5.8	8.4	8.2	9.8	19.5	8.2	4.4	6.4	12.5	21.0
NORWAY	8.2	7.6	-0.7	8.7	4.6	12.5	-1.1	2.8	2.6	5.7	5.1	1.8
UNITED KINGDOM	-1.5	0.4	2.6	8.0	6.0	7.0	4.6	3.1	1.0	5.1	10.2	10.1
SWITZERLAND	6.4	4.8	3.0	2.7	2.6	-1.5	3.6	2.5	2.2	5.3	9.1	6.4
AUSTRALIA	-4.1	1.5	8.1	6.6	8.8	5.1	4.5	-4.8	2.3	3.0	22.1	-3.2
BRAZIL	16.3	10.1	8.7	5.0	-1.6	-2.6	-2.1	0.2	2.9	7.1	9.0	2.4
JAPAN	-0.5	-1.2	1.6	-0.3	0.5	1.1	0.6	0.9	-0.3	-0.5	5.2	6.3
RUSSIA	7.0	12.9	7.3	5.9	0.4	-2.7	-1.0	3.0	5.9	7.3	21.6	22.8
SINGAPORE	9.5	2.3	3.2	-2.9	-3.9	-3.1	-1.1	8.9	2.7	n/a	10.6	8.6
SOUTH KOREA	6.1	-1.4	0.3	1.7	3.5	0.7	1.5	1.1	-0.4	n/a	9.9	-4.7
TURKEY	6.5	10.1	12.7	15.0	15.5	12.2	9.1	4.5	10.0	30.4	59.7	167.9
USA	-4.1	3.0	7.2	5.2	5.5	5.6	6.2	6.2	5.1	7.9	16.8	13.9

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

1) Time series breaks

• See Table 18

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

• See Table 18

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

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
AUSTRIA	88.6	91.4	95.9	96.6	100.0	104.3	106.1	107.6	107.6	116.4	124.6	129.1
BELGIUM	100.2	101.4	101.9	102.2	100.0	101.4	101.7	102.5	104.0	103.2	107.9	108.6
BULGARIA	106.6	104.2	100.3	101.0	100.0	102.2	103.8	n/a	n/a	n/a	n/a	n/a
CROATIA	108.0	110.1	105.8	106.8	100.0	97.7	97.1	97.5	101.5	111.9	111.7	123.9
CYPRUS	111.5	108.7	107.3	104.5	100.0	92.7	87.5	83.0	78.6	79.7	76.7	73.2
CZECHIA	91.5	91.5	94.4	100.4	100.0	106.2	104.8	105.1	107.5	117.6	133.8	122.2
DENMARK	105.3	98.4	97.6	97.7	100.0	99.1	100.3	101.5	101.1	104.8	115.1	107.2
ESTONIA	86.7	90.0	91.9	98.7	100.0	99.6	97.0	93.7	93.5	97.9	104.0	112.4
FINLAND	106.5	105.2	104.2	102.5	100.0	99.0	97.6	95.4	93.3	93.4	93.9	91.6
FRANCE	110.7	107.3	106.4	103.1	100.0	99.1	99.6	99.5	99.4	103.8	106.5	107.6
GERMANY	95.9	96.5	97.8	98.3	100.0	102.5	104.8	108.4	113.1	119.6	129.6	131.2
GREECE	120.0	118.9	113.6	105.0	100.0	98.9	98.1	98.9	100.5	109.7	109.1	112.4
HUNGARY	92.9	91.5	85.2	87.8	100.0	112.3	116.2	127.7	142.8	160.5	164.0	184.1
IRELAND	96.1	80.6	81.9	93.5	100.0	102.5	106.9	112.7	108.4	101.7	103.0	107.3
ITALY	119.1	119.4	111.1	105.3	100.0	99.0	96.0	93.7	93.0	96.9	96.1	93.9
LATVIA	107.7	105.4	109.9	99.1	100.0	102.3	104.5	108.4	111.1	112.9	112.8	114.7
LITHUANIA	102.6	98.0	94.7	99.5	100.0	98.2	102.4	103.5	101.1	100.2	111.1	112.6
LUXEMBOURG	97.0	96.6	95.6	96.3	100.0	103.0	101.9	104.4	108.8	117.0	129.8	130.0
NETHERLANDS	117.2	108.6	100.5	99.0	100.0	102.1	107.3	111.4	113.2	117.5	128.2	142.0
POLAND	118.4	105.9	103.4	102.0	100.0	99.8	96.3	99.5	104.0	112.1	125.5	122.1
PORTUGAL	101.5	97.0	96.0	100.4	100.0	103.7	111.1	116.3	122.8	134.1	144.2	149.0
ROMANIA	121.4	118.7	107.2	104.3	100.0	96.6	90.1	88.2	82.1	84.0	85.4	86.9
SLOVAKIA	113.2	109.0	107.5	104.2	100.0	101.7	103.1	99.6	102.0	111.0	130.3	142.6
SLOVENIA	120.9	115.5	109.4	100.9	100.0	99.1	102.3	104.8	105.3	106.1	110.0	117.3
SPAIN	115.9	111.6	105.4	102.8	100.0	99.2	98.4	98.9	97.2	98.0	97.1	98.5
SWEDEN	91.7	83.5	83.7	91.3	100.0	105.0	111.2	113.2	115.1	120.8	128.5	131.2
NORWAY	90.6	88.6	86.5	96.1	100.0	114.5	109.3	111.8	112.9	130.0	120.8	127.5
UNITED KINGDOM	117.1	112.8	112.8	112.7	100.0	118.9	132.2	132.1	127.6	133.4	135.3	138.8
SWITZERLAND	106.6	107.8	110.8	110.9	100.0	99.3	104.7	109.6	106.1	104.7	104.3	100.5
JAPAN	83.6	76.2	97.9	105.3	100.0	89.7	94.2	96.9	89.0	85.0	99.2	107.1
UNITED STATES	81.6	84.0	90.1	94.8	100.0	102.4	106.0	111.6	105.9	108.1	123.0	121.5

1) Time series breaks
For all countries from 2015

2) The series has been revised for at least two years in:
For all countries from 2015

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

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
AUSTRIA	17,174	17,010	18,854	22,450	27,345	30,894	31,915	42,001	49,124	59,601	71,142	74,522
BELGIUM	—	2,590	8,188	10,575	15,105	16,700	15,250	20,092	23,637	41,062	41,462	46,162
CYPRUS	5,200	4,550	1,000	1,000	650	650	650	650	650	650	650	650
CZECHIA	8,546	9,056	10,355	11,106	11,656	13,060	15,522	13,757	14,168	18,185	22,548	17,908
DENMARK	345,529	359,560	359,646	369,978	377,903	389,200	393,447	396,246	402,432	419,031	433,812	440,428
ESTONIA	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	850	850	2,100
FINLAND	18,839	26,684	29,783	32,031	33,974	33,822	34,625	37,257	37,774	43,855	47,119	51,817
FRANCE	189,395	208,297	202,822	188,925	188,669	177,813	185,820	194,227	209,294	221,821	226,893	244,263
GERMANY	223,676	215,999	199,900	189,936	197,726	207,338	215,199	233,372	239,570	246,311	264,016	281,505
GREECE	19,750	18,046	16,546	14,546	4,961	4,485	10,100	13,840	13,190	10,890	10,840	10,140
HUNGARY	5,175	4,958	4,016	3,272	3,022	2,189	2,641	3,762	3,868	4,526	4,483	4,840
IRELAND	30,007	25,099	20,827	18,473	16,916	17,062	16,416	20,788	19,337	16,816	14,433	12,229
ITALY	50,768	116,405	122,099	122,464	122,135	138,977	139,937	163,311	172,728	171,102	168,099	162,848
LATVIA	37	—	—	—	—	—	—	—	—	—	—	—
LUXEMBOURG	—	—	—	—	—	—	—	—	—	—	—	—
NETHERLANDS	51,970	59,822	61,015	58,850	61,101	67,604	72,880	94,797	118,969	154,505	172,181	197,002
POLAND	527	657	707	882	1,230	2,216	3,959	4,925	6,111	5,776	5,000	4,467
PORTUGAL	33,248	34,321	36,016	33,711	34,461	32,970	35,530	35,795	36,600	38,350	38,150	35,900
ROMANIA	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	200	200	200
SLOVAKIA	3,768	3,835	4,067	3,939	4,198	4,197	5,118	4,858	6,658	7,337	8,851	11,382
SPAIN	369,208	406,736	334,572	282,568	252,383	232,456	216,498	213,253	220,767	231,143	216,808	188,958
SWEDEN	208,894	220,374	217,854	209,842	221,990	222,444	219,212	217,979	235,111	247,713	242,018	225,212
ICELAND	808	893	803	927	1,205	1,902	2,506	3,123	3,071	3,330	4,270	5,725
NORWAY	91,852	107,242	105,202	102,704	107,694	113,051	113,359	119,398	123,023	131,713	130,030	133,012
SWITZERLAND	71,881	85,707	89,064	100,436	111,542	117,564	111,632	119,422	128,248	140,617	152,825	174,458
UNITED KINGDOM (regulated)	121,623	147,425	114,395	114,654	106,674	97,127	89,509	93,530	108,857	96,012	88,710	85,801
UNITED KINGDOM (non regulated)	63,429	37,818	18,077	16,143	8,236	—	—	—	—	1,112	2,380	4,510
AUSTRALIA	2,478	35,962	51,831	64,741	69,312	70,796	64,001	65,855	64,630	62,592	57,864	70,180
BRAZIL	n/a	n/a	n/a	n/a	n/a	n/a	n/a	454	2,487	3,199	7,609	16,133
CANADA	38,610	49,121	50,459	64,836	85,759	100,830	93,095	107,496	113,016	168,195	138,436	168,393
JAPAN	n/a	n/a	n/a	n/a	n/a	n/a	n/a	1,000	3,585	5,322	6,174	5,788
SINGAPORE	n/a	n/a	n/a	n/a	919	1,963	5,576	8,466	8,990	8,815	11,087	12,423
SOUTH KOREA	2,171	2,407	2,536	1,349	1,954	2,490	2,619	2,771	6,183	7,928	9,966	11,622
TURKEY	n/a	n/a	n/a	n/a	128	628	1,923	2,334	1,967	1,755	895	280
USA	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:

- United Kingdom

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

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
AUSTRIA	3,664	3,805	6,093	7,111	5,457	7,181	3,165	11,007	11,228	20,587	15,553	21,646
BELGIUM	—	2,590	5,598	2,387	4,530	2,345	1,050	5,842	5,000	19,250	2,500	7,700
CYPRUS	5,200	—	—	—	—	—	—	—	—	—	—	—
CZECHIA	770	1,309	1,791	2,188	2,729	1,693	4,074	2,573	1,516	6,412	10,415	4,435
DENMARK	145,147	185,845	149,989	154,310	163,050	130,329	123,205	113,441	165,208	124,013	121,724	149,201
ESTONIA	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	850	-	1,250
FINLAND	9,964	9,368	3,771	6,469	7,425	4,679	5,550	5,650	6,650	11,199	8,587	11,420
FRANCE	88,776	53,310	21,386	17,558	33,903	19,482	28,347	27,108	37,050	39,770	29,865	45,890
GERMANY	40,911	38,540	33,583	29,145	40,369	35,070	36,841	43,142	41,973	40,248	45,812	67,317
GREECE	5,000	—	—	750	—	3,675	7,375	6,650	200	—	600	—
HUNGARY	2,264	1,140	559	91	888	625	1,166	2,004	487	1,555	541	911
IRELAND	9,290	5,500	3,235	2,535	5,225	3,542	3,250	5,575	—	2,000	—	—
ITALY	29,261	70,768	24,520	39,475	27,650	41,780	19,180	45,200	27,000	26,100	22,500	20,760
LATVIA	—	—	—	—	—	—	—	—	—	—	—	—
LUXEMBOURG	—	—	—	—	—	—	—	—	—	—	—	—
NETHERLANDS	14,143	10,738	4,478	3,910	7,908	9,908	11,925	28,714	28,388	44,013	36,705	37,956
POLAND	269	228	116	269	416	1,099	2,048	1,244	1,284	22	454	650
PORTUGAL	8,450	4,850	4,500	3,825	8,675	5,950	8,200	2,350	4,800	1,500	—	3,550
ROMANIA	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	200	—	—	—
SLOVAKIA	867	785	841	654	1,159	751	1,316	800	2,250	1,500	2,000	3,250
SPAIN	72,077	98,846	22,919	23,038	31,375	31,393	30,000	19,935	19,435	14,560	12,720	22,350
SWEDEN	69,800	48,936	51,633	48,424	60,729	52,187	48,525	54,199	53,258	53,222	57,240	48,238
ICELAND	25	113	51	91	414	560	850	755	788	646	988	1,832
NORWAY	28,135	22,946	18,339	14,474	17,750	23,058	21,256	24,331	20,766	29,686	20,466	34,217
SWITZERLAND	15,379	19,723	13,583	19,193	15,840	16,106	12,922	13,725	15,360	20,508	19,297	25,490
United Kingdom (regulated)	36,983	37,109	1,480	12,529	15,015	9,599	11,563	14,916	22,959	9,089	9,783	15,977
United Kingdom (non regulated)	—	—	—	—	—	—	—	—	—	1,112	1,190	2,255
AUSTRALIA	2,478	33,484	15,868	13,253	10,004	11,382	7,351	11,075	9,511	4,594	6,825	24,509
BRAZIL	n/a	n/a	n/a	n/a	n/a	n/a	n/a	454	2,040	2,473	4,366	8,309
CANADA	19,977	12,937	9,354	19,275	29,287	28,148	12,441	24,384	23,647	79,834	31,820	70,170
JAPAN	n/a	n/a	n/a	n/a	n/a	n/a	n/a	1,000	2,585	1,850	750	—
SINGAPORE	n/a	n/a	n/a	n/a	919	1,014	3,753	3,762	914	1,000	3,702	3,910
SOUTH KOREA	1,051	178	466	-	919	949	417	587	3,369	2,921	2,847	2,092
TURKEY	n/a	n/a	n/a	n/a	128	500	1,334	766	256	—	16	—
USA	—	—	—	—	—	—	—	—	—	—	—	—

Source: *European Covered Bond Council*

1) Time series breaks

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

3) Notes
- For further details on the methodologies, please see "Annex: Explanatory Note on data"
- n/a: figure not available
- Please note that the conversion to euros was performed by the ECBC

24. Total Covered Bonds Outstanding

As a Percentage of GDP, Backed by Mortgages, %

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
AUSTRIA	5.5	5.3	5.8	6.7	7.9	8.6	8.6	10.9	12.4	15.7	17.7	16.7
BELGIUM	0.0	0.7	2.1	2.6	3.6	3.9	3.4	4.4	4.9	9.0	8.2	8.4
CYPRUS	26.3	23.4	5.6	5.7	3.6	3.4	3.2	3.0	2.8	3.0	2.8	2.4
CZECHIA	5.2	5.6	6.5	7.0	6.9	7.4	8.0	6.5	6.3	8.4	9.5	6.5
DENMARK	139.4	141.2	139.0	139.2	138.4	137.5	133.5	131.1	130.0	134.4	128.8	117.1
FINLAND	9.5	13.3	14.6	15.5	16.1	15.5	15.3	16.0	15.7	18.4	18.7	19.4
FRANCE	9.2	10.0	9.6	8.8	8.6	8.0	8.1	8.2	8.6	9.6	9.1	9.3
GERMANY	8.3	7.9	7.1	6.5	6.5	6.6	6.6	6.9	6.9	7.3	7.4	7.3
GREECE	9.7	9.6	9.2	8.2	2.8	2.6	5.7	7.7	7.2	6.6	5.9	4.9
HUNGARY	5.1	4.9	3.9	3.1	2.7	1.9	2.1	2.8	2.6	3.3	2.9	2.8
IRELAND	17.5	14.3	11.6	9.5	6.4	6.3	5.5	6.4	5.4	4.5	3.4	2.4
ITALY	3.1	7.2	7.6	7.5	7.4	8.2	8.1	9.2	9.6	10.3	9.5	8.5
LATVIA	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LUXEMBOURG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NETHERLANDS	8.0	9.2	9.2	8.8	8.9	9.5	9.9	12.2	14.6	19.4	20.1	20.9
POLAND	0.1	0.2	0.2	0.2	0.3	0.5	0.8	1.0	1.1	1.1	0.9	0.7
PORTUGAL	18.9	20.4	21.1	19.5	19.2	17.7	18.1	17.4	17.1	19.2	18.1	15.0
ROMANIA	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.0	0.0	0.1
SLOVAKIA	5.3	5.2	5.5	5.2	5.3	5.2	6.1	5.4	7.1	8.0	9.1	10.4
SPAIN	57.0	58.0	44.6	35.2	29.4	25.1	21.6	19.8	17.7	20.6	18.0	14.2
SWEDEN	50.6	51.2	49.3	47.8	48.7	47.7	45.7	46.3	49.3	51.5	45.0	40.1
ICELAND	7.4	7.8	6.6	6.9	7.6	10.1	11.4	14.0	13.9	17.6	19.8	21.6
NORWAY	25.6	27.0	26.7	27.3	31.0	33.9	32.1	32.2	34.0	41.4	31.9	24.1
SWITZERLAND	13.8	15.9	16.6	18.1	17.6	18.7	17.9	19.2	19.6	21.3	22.2	22.7
United Kingdom (regulated)	6.3	7.0	5.4	4.9	4.0	3.9	3.7	3.8	4.2	4.0	3.3	n/a
United Kingdom (non regulated)	3.3	1.8	0.9	0.7	0.3	0.0	0.0	0.0	0.0	0.0	0.1	n/a
AUSTRALIA	0.2	3.0	4.4	5.9	5.7	6.5	5.4	5.4	5.2	5.4	4.4	4.5
BRAZIL	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.0	0.1	0.3	0.6	0.9
CANADA	3.0	3.5	3.6	4.8	6.1	7.3	6.4	7.4	7.3	11.7	8.2	8.4
JAPAN	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.0	0.1	0.1	0.1	0.1
SINGAPORE	n/a	n/a	n/a	n/a	0.3	0.7	1.8	2.7	2.7	2.9	3.3	2.8
SOUTH KOREA	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.4	0.6	0.7	0.7
TURKEY	n/a	n/a	n/a	n/a	n/a	0.1	0.3	0.4	0.3	0.3	0.1	0.0
USA	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Source: *European Covered Bond Council, Eurostat*

1) Time series breaks

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

	2015	2016	2017	2018	2019	2020	2021	2022
AUSTRIA	1,576	1,438	1,292	1,142	1,142	n/a	n/a	n/a
BELGIUM	47,729	44,817	45,070	38,575	30,743	25,014	23,221	19,847
FINLAND	—	—	—	—	—	—	—	—
FRANCE	59,336	63,008	78,996	83,279	97,215	81,311	86,167	87,178
GERMANY	26,563	26,016	28,141	29,296	5,075	2,815	11,768	24,791
GREECE	2,600	1,315	1,208	1,093	385	321	284	247
IRELAND	31,532	30,282	27,895	26,961	21,987	23,181	28,813	27,357
ITALY	69,473	60,816	60,435	60,094	59,645	47,987	42,857	39,106
NETHERLANDS	209,590	192,470	164,846	167,214	159,005	150,368	132,188	95,364
PORTUGAL	22,736	19,237	17,369	16,755	12,168	12,634	11,481	6,702
SPAIN	118,604	126,112	126,644	112,336	104,652	113,477	108,858	92,480
SWEDEN	499	611	—	—	—	—	—	—
UNITED KINGDOM	160,668	146,197	142,546	152,819	175,973	144,370	139,783	132,962
RUSSIA	380	1,004	1,868	3,083	2,842	n/a	n/a	n/a

***Source:** Association for Financial Markets in Europe (AFME)*

1) Time series breaks

2) The series has been revised for at least two years in:
- Belgium
- Finland
- France
- Germany
- Greece
- Ireland
- Italy
- Netherlands
- Portugal
- Spain
- United Kingdom

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

	2015	2016	2017	2018	2019	2020	2021	2022
BELGIUM	1,216	3,636	6,680	—	6,960	59	—	—
FRANCE	11,362	10,360	28,212	13,640	21,810	12,150	12,352	25,583
GERMANY	20,487	—	2,500	—	—	—	9,000	13,059
GREECE	—	—	—	—	—	—	—	—
IRELAND	206	4,377	4,215	13,568	5,010	5,485	15,314	6,130
ITALY	6,589	6,760	12,880	11,940	13,586	578	8,277	853
NETHERLANDS	19,359	32,380	14,850	30,415	10,328	7,997	7,499	3,603
PORTUGAL	1,192	—	—	2,266	—	1,647	125	331
SPAIN	9,566	20,337	15,347	683	2,884	20,336	9,033	15,194
SWEDEN	358	214	313	—	—	—	—	—
UNITED KINGDOM	30,701	41,820	33,131	39,277	39,816	—	36,751	39,650

***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:

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

D — MACROECONOMIC INDICATORS

27. GDP at Current Market Prices

EUR million

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
AUSTRIA	310,129	318,653	323,910	333,146	344,269	357,608	369,362	385,274	397,170	381,043	406,149	446,933
BELGIUM	375,968	386,175	392,880	403,003	416,701	430,085	445,050	460,051	478,676	459,827	502,521	549,456
BULGARIA	41,479	42,257	42,050	43,026	45,812	48,773	52,531	56,225	61,559	61,639	71,077	84,561
CROATIA	45,550	44,621	44,437	43,989	45,258	47,339	49,986	52,747	55,644	50,451	58,291	66,939
CYPRUS	19,858	19,495	18,040	17,483	17,944	19,014	20,312	21,674	23,177	21,897	24,019	27,006
CZECHIA	165,202	162,588	159,462	157,821	169,558	177,439	194,133	210,971	225,614	215,805	238,250	276,606
DENMARK	247,880	254,578	258,743	265,757	273,018	283,110	294,808	302,329	309,526	311,760	336,719	376,087
ESTONIA	16,677	17,917	18,911	20,048	20,631	21,748	23,834	25,932	27,765	27,465	31,445	36,181
FINLAND	197,998	201,037	204,321	206,897	211,385	217,518	226,301	233,462	239,858	238,038	250,594	266,679
FRANCE	2,058,369	2,088,804	2,117,189	2,149,765	2,198,432	2,234,129	2,297,242	2,363,306	2,437,635	2,317,832	2,502,118	2,639,092
GERMANY	2,693,560	2,745,310	2,811,350	2,927,430	3,026,180	3,134,740	3,267,160	3,365,450	3,473,260	3,405,430	3,601,750	3,869,900
GREECE	203,308	188,381	179,884	177,236	176,369	174,494	176,903	179,558	183,351	165,406	181,675	208,030
HUNGARY	102,152	100,248	102,240	106,264	112,791	116,256	127,025	136,055	146,555	137,866	154,120	170,247
IRELAND	171,703	175,615	179,458	195,085	262,976	270,205	297,763	326,631	356,705	372,836	426,283	502,584
ITALY	1,648,756	1,624,359	1,612,751	1,627,406	1,655,355	1,695,787	1,736,593	1,771,391	1,796,649	1,661,020	1,787,675	1,909,154
LATVIA	19,666	22,098	22,791	23,626	24,572	25,371	26,984	29,154	30,679	30,265	33,617	39,063
LITHUANIA	31,317	33,410	35,040	36,581	37,346	38,890	42,276	45,515	48,916	49,829	56,154	66,791
LUXEMBOURG	44,324	46,526	49,095	51,791	54,142	56,208	58,169	60,121	62,374	64,781	72,295	78,130
MALTA	6,925	7,365	7,944	8,751	9,997	10,541	11,937	12,977	14,186	13,181	15,012	16,923
NETHERLANDS	650,359	652,966	660,463	671,560	690,008	708,337	738,146	773,987	813,055	796,530	855,470	941,186
POLAND	377,042	385,389	388,356	406,413	429,835	424,735	465,773	499,004	532,505	526,147	576,383	656,906
PORTUGAL	176,096	168,296	170,492	173,054	179,713	186,490	195,947	205,184	214,375	200,519	214,741	239,242
ROMANIA	138,521	139,320	142,929	150,522	160,288	167,494	186,399	206,072	224,179	220,487	241,268	285,885
SLOVAKIA	71,786	73,649	74,493	76,355	80,126	81,265	84,670	89,875	94,428	93,442	100,324	109,652
SLOVENIA	37,059	36,253	36,454	37,634	38,853	40,443	43,011	45,876	48,533	47,021	52,208	58,989
SPAIN	1,063,763	1,031,104	1,020,677	1,032,608	1,078,092	1,114,420	1,162,492	1,203,859	1,245,513	1,117,989	1,206,842	1,327,108
SWEDEN	412,845	430,037	441,851	438,834	455,495	466,267	480,026	470,673	476,870	480,556	540,734	560,959
EURO AREA 19	9,797,620	9,837,412	9,936,144	10,169,459	10,523,092	10,817,294	11,224,153	11,599,278	11,986,303	11,464,350	12,320,890	13,332,098
EU 27	11,328,291	11,396,450	11,516,211	11,782,085	12,215,146	12,548,706	13,074,833	13,533,353	14,018,753	13,469,061	14,537,732	15,810,287
ICELAND	10,934,3	11,479,9	12,132,9	13,472,6	15,795,3	18,804,2	21,917,7	22,238,3	22,028	18,881	21,611	26,479
NORWAY	360,552,4	399,069,2	395,856,8	378,456,4	349,756,7	335,396,5	356,288,5	372,657,6	365,131	322,824	414,395	551,409
SWITZERLAND	515,771	534,013	531,729	548,015	625,533	621,765	615,776	614,304	644,443	648,913	676,775	767,616
UNITED KINGDOM	1,912,869	2,111,029	2,096,338	2,311,080	2,644,717	2,434,119	2,359,790	2,420,897	2,526,615	2,371,130	2,641,049	2,921,382
AUSTRALIA	1,004,244	1,203,696	1,186,910	1,104,633	1,217,246	1,090,148	1,174,544	1,209,593	1,243,370	1,162,525	1,304,354	1,570,803
BRAZIL	1,879,423	1,918,764	1,861,923	1,848,734	1,624,346	1,622,272	1,826,604	1,623,145	1,673,326	1,268,224	1,360,431	1,800,202
CANADA	1,288,309	1,423,075	1,390,405	1,359,240	1,402,892	1,380,427	1,459,915	1,460,905	1,556,065	1,440,574	1,683,235	2,006,225
JAPAN	4,477,836	4,881,976	3,924,650	3,686,108	4,006,247	4,520,442	4,364,732	4,265,737	4,576,434	4,412,632	4,174,704	3,966,943
RUSSIA	1,469,774	1,718,786	1,726,130	1,550,050	1,228,915	1,153,480	1,393,467	1,403,327	1,512,384	1,303,031	1,501,480	2,100,527
SINGAPORE	200,683	229,676	231,591	236,997	277,606	288,041	303,792	319,219	335,393	302,308	335,662	437,642
SOUTH KOREA	900,304	995,040	1,032,148	1,117,289	1,321,112	1,355,237	1,437,463	1,460,496	1,475,143	1,433,983	1,520,702	1,561,265
TURKEY	600,961	683,587	719,727	707,001	777,042	785,619	760,497	658,544	679,132	626,576	685,765	849,417
USA	11,206,701	12,650,975	12,682,171	13,210,900	16,409,212	16,889,611	17,243,180	17,381,165	19,091,177	18,292,544	19,443,730	23,872,773

Sources: *Eurostat, World Bank, ONS (UK)*

1) Time series breaks:

- For all counties: 2003 and onwards
- UK: Since 2020

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

3) Notes:

- For further details on the methodologies, please see "Annex: Explanatory Note on data"
- n/a: figure not available
- Please note that the GDP at current prices has been taken in euros directly from Eurostat.
- 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

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
AUSTRIA	189,400	196,900	197,400	202,900	205,600	214,000	221,400	228,700	236,500	233,800	244,300	260,000
BELGIUM	225,100	231,600	234,800	237,600	241,200	248,300	257,900	266,100	277,000	283,100	293,900	316,900
BULGARIA	25,700	25,800	26,200	26,400	27,400	28,700	30,700	n/a	n/a	n/a	n/a	n/a
CROATIA	28,600	27,600	27,600	26,900	27,900	28,800	30,100	31,800	33,300	32,500	36,200	38,300
CYPRUS	13,700	13,300	12,600	11,800	11,800	12,500	13,300	14,200	15,300	15,200	15,800	17,200
CZECHIA	91,300	90,600	87,900	85,800	89,700	93,700	103,000	112,800	120,100	119,600	132,300	154,800
DENMARK	120,800	123,500	125,600	127,300	132,700	138,900	143,500	147,500	152,300	153,200	155,800	169,000
ESTONIA	9,200	9,500	10,300	10,900	11,500	12,100	13,100	14,400	15,400	15,600	16,900	19,100
FINLAND	114,300	117,700	120,700	122,000	124,000	126,400	129,500	133,800	138,000	139,600	144,000	148,100
FRANCE	1,334,900	1,349,100	1,343,500	1,361,600	1,377,400	1,402,400	1,438,600	1,482,300	1,532,000	1,549,600	1,611,800	1,695,400
GERMANY	1,716,100	1,758,500	1,787,400	1,834,100	1,884,800	1,949,000	2,014,700	2,098,400	2,148,000	2,182,000	2,241,100	2,413,900
GREECE	141,900	126,500	118,100	118,200	117,900	116,300	116,100	117,200	123,700	118,400	128,100	138,800
HUNGARY	60,700	59,800	60,300	60,500	62,700	65,700	72,500	78,600	84,400	80,300	89,800	97,200
IRELAND	84,700	87,300	87,100	88,800	92,700	97,200	103,300	108,000	114,900	122,900	131,400	141,700
ITALY	1,125,600	1,094,800	1,100,000	1,106,900	1,120,400	1,134,800	1,158,100	1,178,800	1,187,200	1,161,000	1,200,500	1,275,000
LATVIA	12,000	13,000	13,500	14,300	15,100	15,900	16,800	18,000	19,000	19,500	21,700	24,300
LITHUANIA	20,300	21,200	22,200	22,500	23,200	24,900	26,000	27,600	30,200	32,700	34,200	40,200
LUXEMBOURG	17,300	18,100	19,200	19,900	20,200	20,800	22,200	23,200	24,500	26,100	26,800	29,300
NETHERLANDS	328,100	331,200	334,600	342,700	348,900	358,700	367,300	385,600	405,500	421,500	444,600	455,900
POLAND	232,600	238,600	242,000	249,800	257,500	259,600	286,900	302,400	320,000	333,100	329,500	374,200
PORTUGAL	127,300	123,800	122,700	122,400	126,600	131,400	135,500	141,400	147,900	146,200	151,700	163,500
ROMANIA	72,200	70,100	77,400	77,900	83,600	91,700	104,200	112,400	125,000	127,900	131,200	138,200
SLOVAKIA	42,100	43,200	43,400	44,400	46,700	48,200	50,700	55,400	58,100	59,800	62,900	69,700
SLOVENIA	23,600	23,000	23,000	23,300	23,700	24,700	25,900	27,500	29,200	30,300	32,600	35,100
SPAIN	694,500	658,200	655,900	656,200	682,200	700,600	723,000	743,600	780,900	765,700	789,300	817,500
SWEDEN	204,900	222,400	229,400	225,200	227,400	234,700	240,100	235,800	238,100	242,100	265,900	271,900
EURO AREA 19	6,208,700	6,214,000	6,245,100	6,336,700	6,471,400	6,633,400	6,854,200	7,090,200	7,314,700	7,353,200	7,646,100	8,141,679
EU 27	7,070,100	7,088,100	7,135,300	7,219,400	7,376,900	7,576,400	7,827,900	8,096,800	8,375,900	8,402,300	8,782,200	9,436,970
ICELAND	4,600	5,100	5,300	6,000	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
NORWAY	154,100	169,500	172,300	168,600	169,400	166,000	172200	173,200	176,300	166,700	189,200	182,400
SWITZERLAND	323,000	334,800	335,500	344,100	391,700	388,300	381800	373,700	394,800	420,900	422,600	466,800
UNITED KINGDOM	1,283,000	1,433,300	1,422,300	1,547,800	1,823,600	1,641,200	1,542,900	1,592,500	1,665,900	1,638,800	1,759,800	1,888,100
JAPAN	2,901,500	3,143,800	2,488,300	2,306,400	2,439,400	2,748,700	2,632,700	2,584,700	2,803,100	2,923,300	2,673,700	2,630,500
TURKEY	413,200	463,300	496,000	488,600	535,800	538,700	519,100	n/a	n/a	n/a	n/a	n/a
UNITED STATES	8,748,500	9,970,800	9,679,800	10,199,200	12,707,100	13,111,900	13,439,800	13,559,600	15,014,300	15,865,800	16,290,800	18,789,500

Source: *European Commission (AMECO Database), Eurostat, National Statistical Offices*

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 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

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
AUSTRIA	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	7,358,443	7,388,778	7,427,239
BELGIUM	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	9,202,196	9,233,555	9,289,646
BULGARIA	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	5,761,802	5,726,002	5,650,134
CROATIA	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	3,360,840	3,344,506	3,195,690
CYPRUS	661,878	684,689	690,884	687,113	677,766	679,378	686,783	695,662	706,661	717,452	724,531	731,677
CZECHIA	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	8,694,474	8,683,168	8,513,726
DENMARK	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	4,666,625	4,687,050	4,721,691
ESTONIA	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	1,071,932	1,071,841	1,072,458
FINLAND	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	4,476,235	4,492,267	4,512,724
FRANCE	50,561,775	50,783,443	51,023,819	51,422,252	51,675,217	51,855,973	52,064,447	52,304,601	52,551,448	52,780,048	53,179,816	53,438,508
GERMANY	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	69,488,809	69,411,087	69,373,865
GREECE	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	8,864,187	8,841,684	8,711,062
HUNGARY	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	8,060,478	8,024,087	7,981,992
IRELAND	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	3,762,805	3,811,534	3,864,876
ITALY	49,321,210	49,396,435	49,662,299	50,624,663	50,699,447	50,657,518	50,678,735	50,677,616	50,243,518	50,208,329	49,885,100	49,811,219
LATVIA	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	1,548,218	1,534,689	1,518,893
LITHUANIA	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	2,295,269	2,297,362	2,310,380
LUXEMBOURG	403,289	415,783	426,500	437,663	449,861	461,711	474,986	485,200	496,015	506,569	513,736	522,754
MALTA	337,240	340,819	346,271	353,065	362,652	372,709	381,876	396,538	413,363	432,616	433,970	438,294
NETHERLANDS	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	14,070,340	14,164,193	14,289,828
POLAND	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	31,044,901	30,917,547	30,743,972
PORTUGAL	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	8,578,859	8,596,565	8,715,904
ROMANIA	16,336,812	16,254,443	16,234,182	16,204,893	16,135,980	16,036,403	15,939,348	15,845,966	15,757,669	15,684,219	15,550,331	15,304,495
SLOVAKIA	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	4,437,897	4,431,608	4,402,238
SLOVENIA	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	1,724,466	1,734,767	1,730,790
SPAIN	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	39,006,858	39,156,568	39,294,807
SWEDEN	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	8,147,081	8,189,892	8,254,086
EURO AREA 19	272,236,147	273,064,508	273,827,319	275,354,521	276,197,818	277,317,471	278,053,375	278,864,527	279,472,341	280,531,528	280,903,651	281,457,162
EU 27	357,794,859	358,687,425	359,569,876	361,128,437	361,987,905	363,020,091	363,690,571	364,397,887	364,945,490	365,951,948	366,026,234	365,822,948
ICELAND	238,035	239,724	242,099	245,631	249,094	252,974	258,565	268,067	276,283	282,770	286,356	292,624
NORWAY	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	4,248,972	4,279,679	4,316,747
SWITZERLAND	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	7,063,672	7,114,731	7,166,168
UNITED KINGDOM	49,807,566	50,186,865	50,573,874	50,995,424	51,440,174	51,848,594	52,214,424	52,538,553	52,838,551	53,024,019	53,205,127	n/a
AUSTRALIA	17,201,150	17,527,223	17,864,524	18,161,523	18,442,951	18,728,518	19,030,549	19,302,642	19,580,683	19,823,122	19,827,997	20,325,498
BRAZIL	139,135,882	141,419,604	143,699,113	145,991,070	148,303,931	150,513,547	152,719,888	154,877,611	156,961,315	158,962,081	160,832,999	162,313,886
CANADA	27,397,195	27,765,009	28,137,348	28,493,563	28,764,287	29,153,504	29,549,312	30,007,036	30,479,422	30,870,500	31,029,510	31,638,861
JAPAN	107,210,100	107,115,522	107,055,355	107,028,454	107,060,040	107,141,775	107,222,661	107,269,248	107,299,859	107,151,131	106,840,540	107,313,813
RUSSIA	116,744,580	116,700,140	116,556,750	116,317,882	115,977,920	115,522,277	115,036,018	114,479,945	113,936,015	113,241,614	112,428,172	113,598,345
TURKEY	50,052,111	51,067,549	52,134,613	53,242,109	54,384,935	55,558,001	56,768,703	57,962,976	59,074,052	60,057,715	60,933,038	61,705,777
SINGAPORE	4,251,842	4,382,333	4,473,253	4,548,998	4,622,462	4,719,440	4,745,653	4,781,703	4,847,799	4,839,217	4,628,474	4,820,950
SOUTH KOREA	40,053,366	40,573,723	41,057,070	41,611,415	42,127,150	42,548,821	42,923,252	43,349,560	43,704,075	43,918,622	43,999,642	44,310,225
USA	236,015,617	238,632,708	241,188,554	243,829,673	246,425,206	248,938,024	251,131,223	253,029,308	254,771,044	257,916,716	258,558,208	260,033,904

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
- Singapore
- South Korea
- Turkey
- United Kingdom
- USA

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-YEAR	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
EU 27												
Bulgarian lev	1.9558	1.9558	1.9558	1.9558	1.9558	1.9558	1.9558	1.9558	1.9558	1.9558	1.9558	1.9558
Croatian kuna	7.5370	7.5575	7.6265	7.6580	7.6380	7.5597	7.4400	7.4125	7.4395	7.5519	7.5156	7.5365
Czech koruna	25.787	25.151	27.427	27.735	27.023	27.021	25.535	25.724	25.408	26.242	24.858	24.116
Danish krone	7.4342	7.461	7.4593	7.4453	7.4626	7.4344	7.4449	7.4673	7.4715	7.4409	7.4364	7.4365
Hungarian forint	314.58	292.30	297.04	315.54	315.98	309.83	310.33	320.98	330.53	363.89	369.19	400.87
Polish zloty	4.4580	4.0740	4.1543	4.2732	4.2639	4.4103	4.1770	4.3014	4.2568	4.5597	4.5969	4.6808
Romanian leu	4.3233	4.4445	4.471	4.4828	4.5240	4.5390	4.6585	4.6531	4.783	4.8683	4.949	4.9495
Swedish krona	8.9120	8.5820	8.8591	9.393	9.1895	9.5525	9.8438	10.2548	10.4468	10.0343	10.2503	11.1218
NON-EU												
Australian dollar	1.2723	1.2712	1.5423	1.4829	1.4897	1.4596	1.5346	1.622	1.5995	1.5896	1.5615	1.5693
Brazilian real	2.4159	2.7036	3.2576	3.2207	4.3117	3.4305	3.9729	4.444	4.5157	6.3735	6.3101	5.6386
Canadian dollar	1.3215	1.3137	1.4671	1.4063	1.5116	1.4188	1.5039	1.5605	1.4598	1.5633	1.4393	1.444
Icelandic krona	158.98	168.89	158.29	154.31	141.38	119.15	124.21	133.21	135.85	156.10	147.60	151.50
Japanese yen	100.20	113.61	144.72	145.23	131.07	123.40	135.01	125.85	121.94	126.49	130.38	140.66
Norwegian krone	7.7540	7.3483	8.3630	9.0420	9.6030	9.0863	9.8403	9.9483	9.8638	10.4703	9.9888	10.5138
Russian rouble**	41.7650	40.3295	45.3246	72.3370	80.6736	64.3000	69.3920	79.7153	69.9563	91.4671	85.3004	79.2258
Singapore dollar	1.7489	1.6055	1.6619	1.6823	1.5255	1.5275	1.5588	1.5591	1.5111	1.6218	1.5279	1.4300
South Korean won	1 498.69	1 406.23	1 450.93	1 324.80	1 280.78	1 269.34	1 279.61	1 277.93	1 296.28	1 336.00	1 346.38	1 344.09
Swiss franc	1.2154	1.2072	1.2276	1.2024	1.0835	1.0739	1.1702	1.1269	1.0854	1.0802	1.0331	0.9847
Turkish lira	2.4432	2.3551	2.9605	2.832	3.1765	3.7072	4.5464	6.0588	6.6843	9.1131	15.2335	19.9649
UK pound sterling	0.8353	0.8161	0.8337	0.7789	0.734	0.8562	0.8872	0.8945	0.8508	0.899	0.8403	0.8869
"US dollar	1.2939	1.3194	1.3791	1.2141	1.0887	1.0541	1.1993	1.1450	1.1234	1.2271	1.1326	1.0666

YEARLY AVERAGE	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
EU 27												
Bulgarian lev	1.9558	1.9558	1.9558	1.9558	1.9558	1.9558	1.9558	1.9558	1.9558	1.9558	1.9558	1.9558
Croatian kuna	7.4390	7.5217	7.5786	7.6344	7.6137	7.5333	7.4637	7.4182	7.4180	7.5384	7.5284	7.5349
Czech koruna	24.590	25.149	25.980	27.536	27.279	27.034	26.326	25.647	25.67	26.455	25.640	24.566
Danish krone	7.4506	7.4437	7.4579	7.4548	7.4587	7.4452	7.4452	7.4532	7.4661	7.4542	7.4370	7.4396
Hungarian forint	279.37	289.25	296.87	308.71	310.00	311.44	309.19	318.89	325.30	351.25	358.52	391.29
Polish zloty	4.1206	4.1847	4.1975	4.1843	4.1841	4.3632	4.2570	4.2615	4.2976	4.443	4.5652	4.6861
Romanian leu	4.2391	4.4593	4.419	4.4437	4.4454	4.4904	4.5688	4.6540	4.7453	4.8383	4.9215	4.9313
Swedish krona	9.0298	8.7041	8.6515	9.0985	9.3535	9.4689	9.6351	10.2583	10.5891	10.4848	10.1465	10.6296
NON-EU												
Australian dollar	1.3484	1.2407	1.3777	1.4719	1.4777	1.4883	1.4732	1.5797	1.6109	1.6549	1.5749	1.5167
Brazilian real	2.3265	2.5084	2.8687	3.1211	3.7004	3.8561	3.6054	4.3085	4.4134	5.8943	6.3779	5.4399
Canadian dollar	1.3761	1.2842	1.3684	1.4661	1.4186	1.4659	1.4647	1.5294	1.4855	1.5300	1.4826	1.3695
Icelandic krona	161.49	160.93	162.20	154.85	144.39	131.01	120.54	127.89	137.28	154.59	150.15	142.24
Japanese yen	110.96	102.49	129.66	140.31	134.31	120.20	126.71	130.40	122.01	121.85	129.88	138.03
Norwegian krone	7.7934	7.4751	7.8067	8.3544	8.9496	9.2906	9.327	9.5975	9.8511	10.7228	10.1633	10.1026
Russian rouble**	40.8846	39.9262	42.337	50.9518	68.072	74.1446	65.9383	74.0416	72.4553	82.7248	87.1527	74.1251
Singapore dollar	1.7489	1.6055	1.6619	1.6823	1.5255	1.5275	1.5588	1.5926	1.5273	1.5742	1.5891	1.4512
South Korean won	1 541.23	1 447.69	1 453.91	1 398.14	1 256.54	1 284.18	1 276.74	1 299.07	1 305.32	1 345.58	1 354.06	1 358.07
Swiss franc	1.2326	1.2053	1.2311	1.2146	1.0679	1.0902	1.1117	1.155	1.1124	1.0705	1.0811	1.0047
Turkish lira	2.3378	2.3135	2.5335	2.9065	3.0255	3.3433	4.1206	5.7077	6.3578	8.0547	10.5124	17.4088
UK pound sterling	0.8679	0.8109	0.8493	0.8061	0.7258	0.8195	0.8767	0.8847	0.8778	0.8897	0.8596	0.8528
US dollar	1.3920	1.2848	1.3281	1.3285	1.1095	1.1069	1.1297	1.1810	1.1195	1.1422	1.1827	1.0530

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

** Data for 2022 is retreived via Bloomberg

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).

Japan: The outstanding balance of commercial loans is of major and regional banks and credit unions, which covers only rental houses that are constructed by individuals. The data are available only from FY2009. No other statistics are available for this category. The Japanese Fiscal Year starts from April to March.

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. 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 m2 of new dwellings sold.

Cyprus: The indices are based on property valuation data collected since 2006 by the contracted banks, which receive the relevant information from independent property surveyors in connection with mortgage transactions, such as housing loans, mortgage refinancing and mortgage collateral. The data, which are representative of the Cyprus property market, cover all the areas under the effective control of the Republic of Cyprus (Nicosia, Limassol, Larnaca, Paphos and Famagusta) and refer to residential properties (houses and apartments). Source: Central Bank of Cyprus.

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 Fomento.

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.

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 Fomento.

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. The sources are the Associations of Real Estate Appraisers of respectively Tokyo, Osaka and Aichi

Norway: Source: Real Estate Norway

Turkey: Source: Central Bank of the Republic of Turkey

United 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 MARKETB HOUSING 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.

23. TOTAL COVERED BONDS ISSUANCE, BACKED BY MORTGAGES, EUR MILLION

See point 22.

24. TOTAL COVERED BONDS OUTSTANDING, BACKED BY MORTGAGES, TO GDP RATIO

Total Covered Bonds Outstanding (backed by mortgages) is provided by the European Covered Bond Council (Table 22). GDP at current prices is provided by Eurostat and the World Bank (Table 27).

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.

26. TOTAL RESIDENTIAL MORTGAGE-BACKED SECURITIES (RMBS) ISSUANCE, EUR MILLION

See point 25.

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

HYPOSTAT 2023

A REVIEW OF EUROPE'S MORTGAGE AND HOUSING MARKETS

September 2023

EMF

FUNDING THE REAL ECONOMY