HYPOSTAT 2022

FUNDING THE REAL ECONOMY

HYPOSTAT **2022** | A REVIEW OF EUROPE'S MORTGAGE AND HOUSING MARKETS

European Mortgage Federation

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

A new mortgage scenario emerges amid unprecedented challenges

2021 was hoped to mark the start of the post-pandemic rebound in Europe. Despite the lingering social and economic effects of the pandemic, which were still quite persistent in the first half of the year, the former statement was true to a large extent. Indeed, most European countries experienced significant economic growth compared to the previous year, with businesses restarting their activities and consumers driving demand, especially as lockdown and social distancing measures were gradually rolled back.

Against this backdrop, mortgage lending activity expanded once more, hitting record-breaking mortgage stock and gross lending values. The spill-over effects of this are clear: a larger number of housing transactions, a relatively improved construction output, especially after a downturn, and more possibilities for banks to expand their businesses. This also translates into greater access to housing for many European citizens, more opportunities to move up the social ladder, particularly for the young, or simply the chance to fulfil the dream of becoming a homeowner. The economic impact of our sector has a social dimension, one that sets it apart from others. After the pandemic, this bears a greater, more profound meaning.

The apparent shift in the pandemic cycle has nevertheless given way to new, unparalleled challenges that we, as an industry, must face moving forward. The first one that will resonate with all readers is, undoubtedly, inflation. Consumer prices increased, on average, by approximately 2.8% in 2021 in the EU27 area, marking the largest single year increase in a decade. Inflation remains one of the key economic concerns in the first half of 2022, especially considering the energy supply and geopolitical uncertainties that have shaken the world this year. This means that many households will lose purchasing power and that the positive post-pandemic economic prospects might be cut short.

The interest rate environment seems to be changing at a fast pace as well, in line with price developments. As a general trend, interest rates in Europe had been decreasing consistently since 2012, facilitating consumer and mortgage lending, and further supporting economic growth since the Global Financial Crisis (GFC) of 2008. Today, the mortgage credit industry must face a more volatile scenario, with potential interest rate hikes in the short-term and no clear monetary policy to pursue. In concert, the inflationary drive that is sweeping across Europe, may have serious implications for the industry, limiting banks' lending capabilities. Likewise, this scenario may critically hinder consumers' purchasing power and ability to make deposits, as homes will become less affordable for families and household savings will lose value relative to consumer prices. In this context, access to wholesale funding through long-term financial strategies for lenders, particularly covered bond funding, represents, more than ever, a crucial component of European capital markets.

Beyond the strictly macroeconomic aspects, the European mortgage industry must also meet a key institutional hurdle, namely the implementation of the international Basel III agreement. At the time of writing, the European Union is still debating on how best to integrate the new banking rules into EU law. The process promises to be long and complex, with contending views on the future of European banking. As policymakers and stakeholders examine the nuances and technicalities of upcoming legislation and the different proposals, the European mortgage industry must strive for a compromise that both protects residential mortgages, one of the safest financial products in the market, and ensures that future borrowers have the best possible access to proper residential funding. Historically, mortgages have played a key role in achieving Europe's economic and social progress. A harsher regulation on this asset would be counterproductive for banks and borrowers alike, and it would also disrupt a legal framework that has proven to be robust, stable and efficient over the years.

This argument is further bolstered by two ongoing processes that are changing the core structure of the mortgage market in Europe, which policymakers should carefully consider: firstly the urgent need for a transition to energy efficient housing and, secondly, the demographic changes facing the Old Continent.

As the EU endeavours to promote sustainable economic activities across Members States and to improve the energy performance of the European building stock, particularly residential dwellings, it is necessary to mobilise the European mortgage sector to support this goal. But this can only be achieved if the legal framework is clear and stable, and if the right incentives are in place. To further expand "green lending", a stronger ecosystem will be needed, allowing for the exchange of information and best practices between banks, institutions and consumers. Additionally, to fully support the emerging energy efficient mortgage market, sustainable finance legislation and European banking and prudential rules must be aligned. The success of the EU's energy efficient roadmap cannot be achieved by merely developing an energy efficient mortgage market in individual jurisdictions; it will also require a consistent finance and lending framework, effective support measures, and the active involvement of mortgage banks, given their technical and market-level know-how.

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. Given the variety of family structures in Europe, housing needs and preferences are today more diverse than ever. Furthermore, in today's rapidly changing economic scenario, younger borrowers who enter the market for the first time will likely encounter greater difficulties to access residential credit. This is why the industry and policymakers need to work together to make certain that mortgages remain an accessible financial instrument for all citizens, and especially one that does not disadvantage newer generations.

The 2022 edition of the European Mortgage Federation's (EMF) Hypostat attempts to shed light on these topics. The EMF's flagship report 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 seek 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 covering more than 40 countries. These experts share with us 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 mortgage lending. Thus, the changes taking place on the mortgage side will surely have an impact on the covered bond side. The opposite equally holds true. As both industries adjust to the latest inflationary and interest rate trends, new legal frameworks (namely, the new Capital Requirements Regulation/Capital Requirements Directive (CRR/CRD) and the revised Covered Bond Directive), and social and environmental demands, it is imperative that we share a comprehensive and integrated view of mortgage and covered bond value chains. This year's Fact Book and Hypostat are a great example of this.

The efforts of the EMF in the field of energy efficiency also deserve a few words, as they demonstrate the industry's commitment to overhauling Europe's rapidly aging residential building stock. Mortgage banks are at the forefront of efforts to finance the transition towards a zero-carbon economy, continuously improving market practices through an assortment of ESG initiatives and projects, the most well-known of which is the Energy Efficient Mortgages Initiative (EEMI). Actions to curtail energy consumption and CO_2 emissions are becoming increasingly urgent, more so if we consider the dramatic increases in energy prices since the first quarter of 2022. Banks, as we have said before, can help drive the green transformation of European houses, support the implementation of energy efficient financial products and stimulate new renovation initiatives, whether national or regional.

One of the most successful of these market-led initiatives is the EMF-ECBC's Energy Efficient Mortgage (EEM) Label. Launched in February 2021 with the support of the European Commission, the EEM Label, a key component of the broader Energy Efficient Mortgages Initiative (EEMI), is a quality instrument that allows for the transparent identification of energy efficient mortgages in banks' mortgage portfolios by market stakeholders. The Label is furthermore a catalyst of consumer demand and a driver of the qualitative upgrade of the energy profile of lending institutions' portfolios and of 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 and green securitisations, 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 EEM Label brings together 38 financial institutions from 14 different jurisdictions, covering 53 labelled products, plus an additional three complementary loan products.

Furthermore, as the focus on sustainable finance grows, transparency and disclosure are now at the core of the discussion. In this context, the new Harmonised Disclosure Template (HDT) allows for improved comparability of energy efficiency mortgages, facilitate the exchange of up-to-date qualitative and quantitative information between investors, regulators and other relevant market actors. This, in turn, facilitates regulatory reporting, improves transparency and establishes a more standardised approach to examine and evaluate EEM products, thereby enhancing market conditions.

All in all, the EMF-ECBC's expertise and think-tank approach to market questions helps deliver solid insights on the mortgage lending market, while setting standards and developing solutions that improve the market.

The EMF Hypostat report will continue to be at the forefront of this first angle of the EMF-ECBC's work.

Hypostat brings together over 30 contributors, commenting on an annual data series of 30 indicators, covering, where data is available, the 27 Member States of the European Union and an additional twelve 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 respective markets and outline developments observed over the past year.

Additionally, the 2022 edition of Hypostat includes an overview of the Energy Efficient Mortgages Initiative as well as three external articles focusing on key market developments:

- S&P Global examines the role of covered bonds, a typically European means of funding, in non-European markets.
- This year's report also includes a joint study by the London School of Economics (LSE) and Organisation for Economic Cooperation and Development (OECD) on the challenges relating to investments in sustainable energy and improvements in the energy efficiency of buildings, especially in the context of rising energy prices.
- Lastly, an article written by Copenhagen Economics, which outlines the potential impact of the new Basel III framework on the European mortgage market.

On behalf of the EMF Research & Data Committee and its Chairman, Mr Gyula Nagy, we would like to thank most sincerely all contributors for making the publication of Hypostat 2022 possible.

We trust you will find this publication interesting and useful.

Luca Bertalot, EMF-ECBC Secretary General

MACROECONOMIC SITUATION

- In 2021, EU27 GDP grew by 7.9% compared to 2020, surpassing the levels of pre-pandemic 2019. The recovery was driven was the restart of business activities and the overall easing of lockdown measures. Most EU27 Member States saw their GDP levels recover from the 2020 shock, except for Spain, Italy, Greece and Portugal.
- The euro area recorded a growth rate of 7.5%, supported by the stocks of raw materials, semi-finished goods finished goods, private consumption and the external balance of goods and services.
- Unemployment levels have progressed at a different pace across the Member States. However, both the EU27 and euro zone average unemployment rates fell in 2021, closing the year with a rate of 7% and 7.7%, respectively.
- EU27 public spending increased by 5% in 2021, reaching EUR 7.4 tn. In the meantime, total public sector debt government debt relative to GDP fell by -1.9 pps, leading to 88% ratio by end 2021.
- Inflation stood at 2.9% in the euro area by end 2021, the sharpest single-year inflation rate since 2011, after recording an average HICP rate of 0.6% in 2020. Inflationary developments varied across Hypostat jurisdictions, although the increase in consumer prices was widespread.

HOUSING MARKET

- The European housing market also showed significant signs of growth. EU27 investment in dwellings as aggregated volumes increased by 12.5% in 2021, as well as the Euro area (12.3% y-o-y).
- Residential building production increased during the first four months of the year, peaking in April 2021, and, after following a decreasing trend until August, it expanded once more until October. Business confidence in the construction sector recovered as the economic situation improved.
- On average, the total number of building permits issued increased by 11.2% in the EU, for a total amount of more than 1.78 mn permits, the highest level ever reached. Most of the jurisdictions also report an increasing number of licenses, save for Estonia, Malta and Austria. Over the last 10-year period (2012-2021), overall EU building permits grew by almost 40%. Residential transactions increased in 2021, after the fall in 2020.
- In 2021, newly issued building permits represented 0.86% of the combined EU27 and UK building stock, 0.12 pps more than in 2020. The bulk of EU houses dates to the 1946-1981 period, although significant national differences can be seen, as explained in the report.
- 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 energy efficient requirements, to contribute towards meeting the EU's climate goals. Secondly, the diverse age structure of and the technical differences between buildings shows the need for an approach that considers the specific traits of the dwelling stock of each country. Lastly, the demographic changes in Europe, namely the increase of childless households and the aging population, will likely have an impact on the future housing needs and preferences of Europeans, bearing on the future growth opportunities of the industry.
- The average, unweighted EU27 house price index grew by 11.3% in 2021, after a 4.8% increase in 2020, continuing a trend that began in 2013.
- Between 2012 and 2021, 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.
- Across the EU, the HPI of capital cities increased by 8.2% in 2021, 3.6 pps less than the HPI of the country.

MORTGAGE MARKETS

- The latest figures from 2020, the last year for which there is full data available, suggest that 70% of the EU27 population were homeowners. Furthermore, 29.4% of European households reported having a mortgage o similar financial product.
- Over the last decade, the proportion of European homeowner with a mortgage has increased by around 1 pps, while the proportion of homeowners without mortgages or loans decreased by around 2 pps.
- On average, a European adult has an average mortgage loan of more than EUR 17,782, an increase of 5% from 2020. Luxembourg continues to have the highest mortgage debt per capita at nearly EUR 83,000.
- Adjusting the average mortgage per capita to the proportion of homeowners with mortgages shows that on average mortgage holders in the EU are burdened with EUR 87,000, while in Luxembourg, Denmark and Sweden, this amount is over EUR 100,000.
- In 2021, EU27 outstanding mortgage loans surpassed EUR 6.3 tn, a 2.7% y-o-y increase. Adding the UK, Norway and Iceland to the stock, the figure reached EUR 8.7 tn outstanding, a new all-time high.
- The EU mortgage market is dominated by a handful of countries, the UK, Germany, France, the Netherlands, Spain, and Sweden which, considered altogether, represent more 75% of the outstanding mortgage market of the EU27 and UK.
- The average European interest rates on mortgages continued the downward path started in 2019, as the average rate reached 2.07%, 5 bps lower than in 2019.
- In the EU27 and UK, variable interest rate mortgages represented slightly over 15% of total new mortgages, continuing a ten-year-long declining trend since 2010, when it was 37%. In absolute terms, new variable interest lending was more than EUR 242 bn, indicating an increase from 2020.
- The proportion of variable interest rates mortgages (with an initial fixated period of up to 1 year) varies considerably by country, as the report shows.

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 2022", focuses on developments that took place in 2021, a year on since the onset of the pandemic and the apparent start of the recovery phase.

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

Impact of Final Basel III on the EU Mortgage Sector

Implications for competitive dynamics and credit provision

1. INTRODUCTION

In December 2017, the Basel Committee concluded their work on updating and completing the Basel III international regulatory framework for banks. A key objective of the reform is to reduce excessive variability of banks' capital requirements primarily driven by internal models, used by most large banks to estimate capital requirements. Here, policymakers' concern has been that the variation in the risk estimated by internal models, is not linked to corresponding variations in the underlying risks.

To address this, the Basel Committee has, amongst other things, suggested the implementation of a so-called output floor, providing a minimum level of capital that a bank must hold, thus working as a back-stop for estimated risk. The European Commission recently released Banking Package 2021 with a proposal on how to implement the Final Basel III agreement in the EU. It introduces key changes to credit risk, operational risk and market risk and suggests implementing the output floor in accordance with what was suggested by the Basel Committee.

Previous studies conducted show strong evidence that the output floor will significantly impact low-risk business, such as mortgage lending. On the back of this, the EMF-ECBC commissioned Copenhagen Economics to assess the impact of Banking Package 2021 on the EU mortgage market.

In this article, we outline the results of the recently conducted study and discuss the wider implications of implementing Banking Package 2021. The article consists of two parts: Part 1, by Copenhagen Economics, outlines the key findings of the study. Part 2, by Wolfgang Kälberer, focuses on the wider implications for the banking sector.

Part 1

By Astrid Leth Nielsen and Jonas Bjarke Jensen, Copenhagen Economics

2. IMPACT ON CAPITAL REQUIREMENTS FOR THE EU MORTGAGE SECTOR

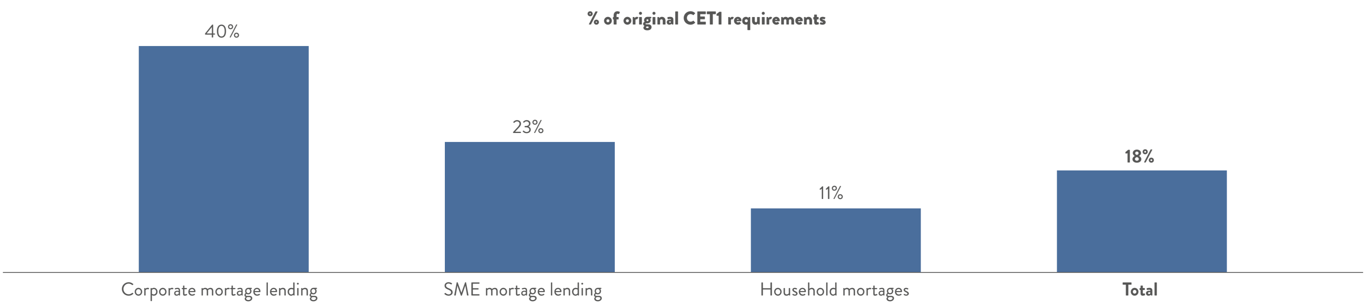
2.1 MAIN FINDINGS

In the study, we estimated that capital requirements for the EU mortgage portfolios[1] will increase by an estimated 18% compared to the end of 2020. This corresponds to EUR 22 bn in extra capital. Fully restoring capital ratios to the pre-package level would require an additional EUR 17 bn, leaving a total extra capital need of up to EUR 39 bn.

However, the average impact of 18% includes substantial variation across institutions and depends crucially on two dimensions: 1) the type of lending and 2) which approach is taken by the institutions to model risks. In other words, the average impact is not very reflective of how institutions actually will be impacted; some institutions might see very strong impact, while other institutions in fact will see a decline in capital requirements for their mortgage portfolios.

To illustrate this, we can first look across different types of mortgage lending, where we found large discrepancies, see Figure 1. For corporate mortgage lending we estimated that capital requirements will increase by 40% on average. On the other hand, household mortgages will be less impacted with an increase on 11%. This should be seen in the light of the focus of Banking Package 2021, which has been in favour of lighter treatment of households, compared to the original Basel proposal. Under the standardised approach (applicable when the output floor is binding) the risk weight on 20% applied to exposures secured by residential real estate is thus significantly lower than the risk weight on 60% applied to exposures secured by commercial real estate.

FIGURE 1 | INCREASE IN CAPITAL REQUIREMENTS FOR DIFFERENT PORTFOLIOS

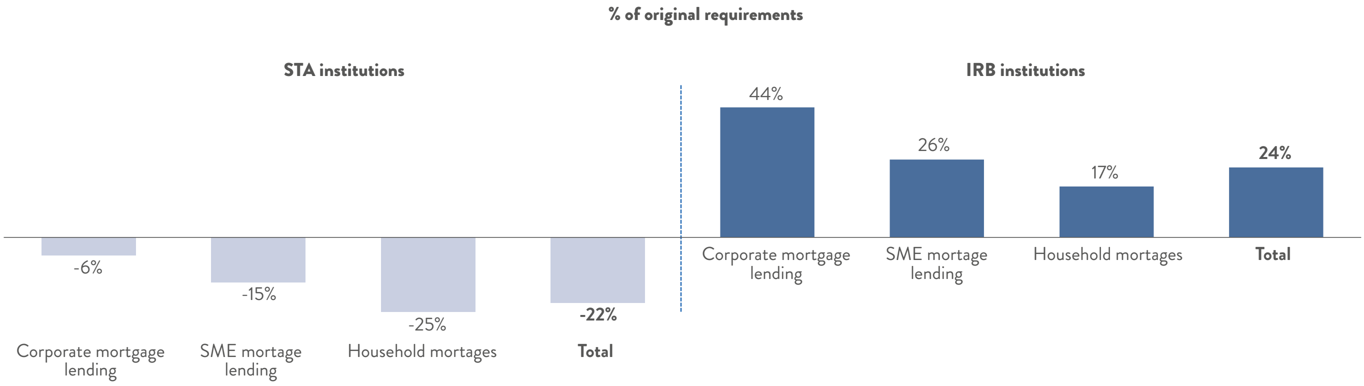


Source: Copenhagen Economics (2022) Impact of Final Basel III on the EU mortgage sector

[1] We analyse assets included in the EBA transparency exercise, i.e., we assess the impact on 80 of the largest credit institutions in 13 major mortgage markets in the EU. Our country selection covers 93% of the EU mortgage market.

Another relevant split is based on the approaches taken by institutions to model risk today; where IRB institutions on average had an increase in capital requirements of 24%, we found that STA institutions actually will experience a decrease in capital requirements of 22%, see Figure 2. This is based on the more preferential treatment of STA RW laid out with the loan-splitting approach in Banking Package 2021. Again, corporate mortgage lending at IRB institutions will be impacted the most with an increase on 44%. The impact for SME exposures is in general lower due to the SME supporting factor continued from the current regulation in Banking Package 2021.

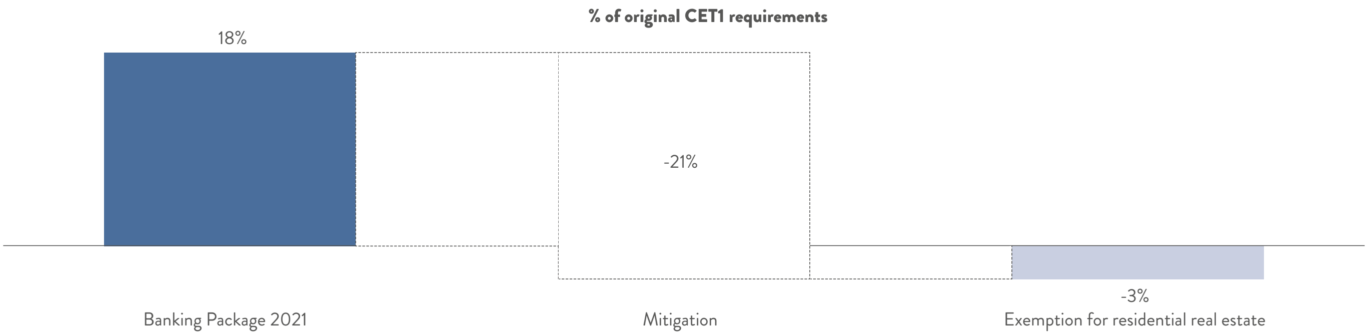
FIGURE 2 | INCREASE IN CAPITAL REQUIREMENTS



Source: Copenhagen Economics (2022) Impact of Final Basel III on the EU mortgage sector

Banking Package 2021 could be implemented in ways that could temporarily mitigate the estimated increase in capital requirements. For example, the EU Commission has suggested a transitional arrangement for mortgage loans secured by residential real estate – conditional on banks passing the so-called hard test (demonstrating low losses during the last 6 years). This could practically neutralize the impact of the package, as it would significantly reduce the number of banks being bound by the output floor. Assessing the impact on top of fully-loaded capital requirements, we find a small decline in capital requirements for the EU average mortgage portfolio of around 3% as shown in Figure 3.

FIGURE 3 | CHANGE IN CAPITAL REQUIREMENTS WHEN EXEMPTION FOR RESIDENTIAL REAL ESTATE IS IN EF-FECT (ON TOP OF FULLY-LOADED REQUIREMENTS), CONDITIONAL ON PASSING THE HARD TEST

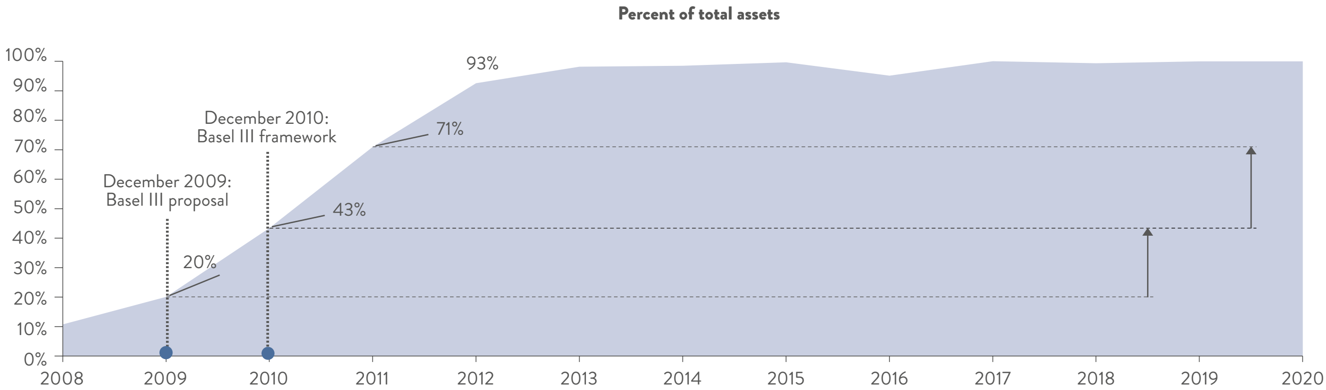


Source: Copenhagen Economics (2022) Impact of Final Basel III on the EU mortgage sector

To have any significant impact on the capital need of institutions, we would expect that the temporary exemption would have to be made permanent. There is strong evidence that banks adjust to capital requirements shortly after the announcement of a reform, for instance due to market expectations. This was the case after the proposal and announcement of the Basel III framework in 2009 and 2010 – here, most European banks complied with Basel III capital requirements already in 2012 see Figure 4, even though they were only to be fully phased in, in 2019.[2]

[2] See for instance Copenhagen Economics (2021) EU implementation of the Final Basel III standard – impact on the European banking sector and the real economy.

FIGURE 4 | BANKING ASSETS COMPLIANT WITH BASEL III CET1 CAPITAL REQUIREMENTS



NOTE: The minimum CET1 capital requirements under Basel III assumed here are the ones mentioned in the original publication on Basel III. This results in a fully phased in CET1 requirement of 9.5%, assuming a coun-tercyclical capital buffer equal to the maximum value of 2.5%.

Source: S&P Global Market Intelligence database; BCBS (2009) – Strengthening the resilience of the banking sec-tor, BCBS (2010) – Basel III: A global regulatory framework for more resilient banks and banking systems.

2.2 HOW WE DID IT

First, please note that our study only explores the effects of Banking Package 2021 on the European mortgage sector. Thus, we estimated **the contribution of the mortgage portfolio** to lenders' total capital requirements. An estimated decline or increase in capital requirements for the mortgage portfolio, should thereby not be seen as the total impact for the lender. The reason being a mortgage lender often will have many other exposure types, which will likely see an increase in capital requirements due to Banking Package 2021.[3]

We estimated the impact of Banking Package 2021 for the mortgage portfolio (covering households, SMEs and corporates) for some 90% of the total EU mortgage market. The development in data on the banking sector in recent years, made it possible for us to carry out the study without requiring any confidential data from lenders. Instead, we were fortunate: 1) that the EBA transparency exercise gave us much of the data needed[4] made our study possible and 2) pillar 3 reports and other public available information have to disclose information on e.g., LTVs, classification of lending and average sizes of loans, which we used to estimate risk weights applicable to the different exposures.

As mentioned, the study only covered the mortgage sector. However, we still had to estimate capital requirements on a group level, because the output floor is binding on an aggregate level. We did so, by first implementing measures not related to the output floor, e.g., changes to market risk, operational risk and the standardized approach. Second, we estimated capital requirements under the output floor for the lender as a whole, thereby including all portfolios. Finally, we assessed which of the two capital requirements was highest; if the floored capital requirements were higher than unfloored, the lender would be bound by the output floor, and we would apply floored risk weights to the mortgage portfolio.

3. IMPLICATIONS FOR COMPETITIVE DYNAMICS

The impact of the package could very well reach beyond the need for institutions to recapitalise. The large divergence in how hard institutions is affected could entail that the package has broader ramifications in how competitive different banks are in servicing different types of clients. Or rather it speeds up an already ongoing process the previous decade where regulatory overhaul has initiated a disentangling of underlying risks and capital costs.

Going back to basic banking, one would expect there to be a clear relation between underlying risks, capital allocated and passed-on capital costs. In a world without regulation, this would be the case as banks would allocate more capital buffer to more risky clients – a capital cost that the client would likely need to pay for.

The current IRB framework somewhat simulates this basic banking principle – although admittedly in a quite complex manner: When the fundamentals of a client worsen, say lower revenue-to-debt, the PD of the client will worsen in the internal models of the bank, leading to higher risk weights. The higher risk weights would increase the capital costs for that client.

Most large IRB approved banks would have internal capital costs allocation models that would distribute the higher capital costs to that client (of group of clients). Of course, there are many considerations in a pricing decision, but on average we should expect coherency between capital costs for individual clients and the prices that they pay.

To sum up, with the current framework we have that higher risk, leads to higher capital requirements, which leads to higher capital costs being passed on. The Final Basel III package – and particular the way it is being implemented in EU – challenges this coherency.

[3] For instance because of higher RW's for unrated corporates and market risk.

[4] Our study thus covers the 80 financial institutions for the 13 biggest mortgage markets in the EU, included in the EBA transparency exercise.

FIGURE 5 | DISENTANGLING OF RISK, CAPITAL REQUIREMENTS AND PRICING OF BANK PRODUCTS

Source: Copenhagen Economics

3.1 DISENTANGLEMENT OF UNDERLYING RISKS AND CAPITAL REQUIREMENTS

Let us start with the first break in this coherency; disentanglement of underlying risks and capital requirements. For around 2/3 of IRB institutions the output floor will be binding, as a result of the Final Basel III package, cf. Figure 6. This means that floored risk weights will be applied based on the standardised approach, where LTV is the only input factor. As a result, higher risk of default for the underlying asset will not have any implications for capital requirements.

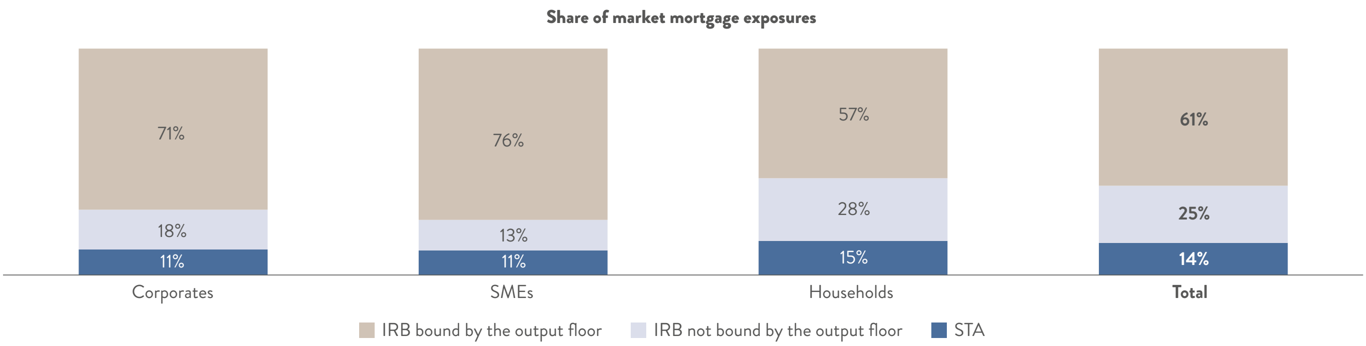
This will change the strategic choice for lenders of which customer groups to pursue, with larger incentives – everything else being equal – to pursue high risk customers. For example, when bound by the output floor, a large renowned unrated corporate with billions in revenue and a 50-year history of no default will have the same capital requirements as a newly started online retailer.[5] In turn, this will imply that lenders will become less competitive in servicing large corporates, which might look for funding elsewhere, e.g. issuing debt on capital markets; it is not given that large corporates are willing to pay the price for the higher capital requirements, if passed on – as these are out of sync with risk fundamentals.

3.2 DISENTANGLEMENT OF CAPITAL REQUIREMENTS AND PASSED ON CAPITAL COSTS

As mentioned, the 18% average impact covers very large divergency among institutions: in our sample, more than 15% of all institutions will experience increases in capital requirements of more than 30% – in some cases we see increases in capital requirements of more than 70%. At the same time, around 1/3 of IRB banks will not be bound by the output floor, implying little change to capital requirements. In some cases, both end of the scale is operating on the same market.

This could shift the competitive dynamics on the markets they operate in. In particular because the output floor is binding on a group level. Thus, even though a given bank might not experience large changes on the aggregate level, a binding output floor could still significantly change the implied capital costs for individual customer groups.

FIGURE 6 | AROUND 2/3 OF IRB EXPOSURES WILL BE BOUND BY THE OUTPUT FLOOR

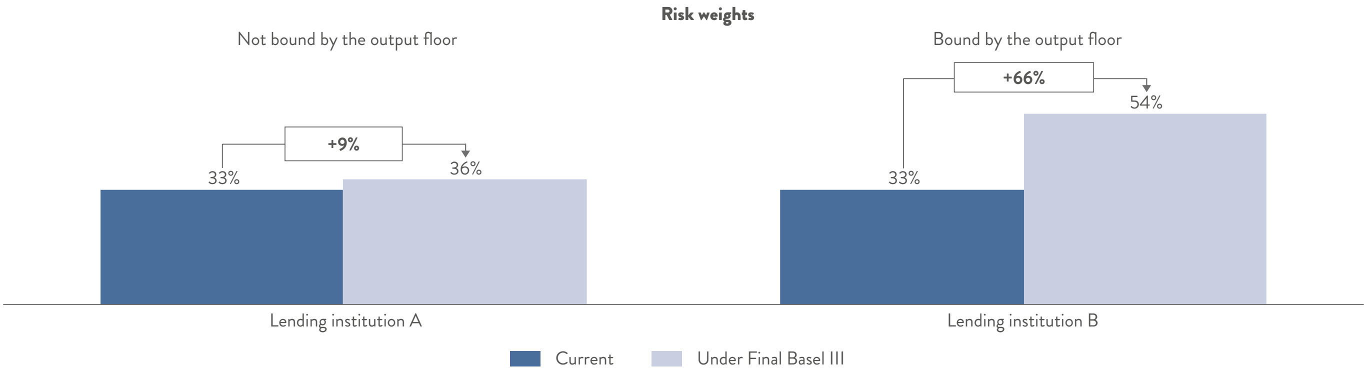


Source: Copenhagen Economics (2022) Impact of Final Basel III on the EU mortgage sector

To see this, consider a stylised example of two lending institutions (A and B), which have identical corporate portfolios. However, lending institution A has a larger residential mortgage portfolio, where institution B has almost no residential exposure. As a result, institution B will see a strong increase in capital requirements for the corporate portfolio, whereas institution A will not – even though they have identical corporate portfolio. This is illustrated in Figure 7.

[5] Given it is large enough to not receive a SME discount.

FIGURE 7 | INCREASE IN RISK WEIGHTS FOR THE CORPORATE PORTFOLIO – ILLUSTRATIVE EXAMPLE



Source: Copenhagen Economics

The reason is as follows: in the EU implementation, capital requirements for the residential portfolio are significant lower compared to corporate exposures. Thus, because of the large residential portfolio, institution A will not be bound, implying very limited impact on capital requirements. Institution B – with a completely identical corporate portfolio – would on the other hand be bound by the output floor and experience a strong increase in capital requirements for the corporate portfolio – in this example of 66%. This will make institution A more competitive in servicing corporate clients. This leaves institution B the difficult strategic question of whether it will fully pass-on the capital costs, take a cut in return on equity or seek to move exposures off the balance sheet, e.g. pushing corporates clients towards capital markets.

Before the package, competitive dynamics would make sure that differences in capital costs passed on for a given customer segment will not be too large, since this represents business opportunities for new entrants, which could service the given customer segment.

However, this was in a situation where capital requirements for the large IRB institutions was quite homogenous; the same customer would have the same capital requirements at the different banks. What will happen when the Final Basel III package will break this homogeneity? This is a difficult question to answer and will be based on individual lending institutions strategy and business model. Our expectation is that we will move towards a situation where capital costs are less likely to be passed on 1:1 to the customer segments that experience the highest increases, but instead be more broadly spread out on customers, while considering price sensitivities of different segments.

From tax incident literature, we know that smaller clients, households and SMEs typically have smaller price sensitivity. They do not have the same professional setup in investigating optimal funding opportunities, and have fewer financing choices, e.g. cannot issue debt on capital market. Consequently, we could end up in a situation where households and SMEs eventually will end up with a significant portion of the bill of Final Basel III – despite the fact that exactly these customer groups have been imposed less strict requirements to begin with.

Part 2

by Wolfgang Kälberer, EMF-ECBC Strategic Adviser

4. CONCLUSIONS FOR BUSINESS MODELS AND MORTGAGE MARKETS

It is worthwhile recalling that the European banking industry requested that the output floor (OF) be introduced as one of three approaches to calculate capital requirements, the so-called parallel stacks approach. The highest capital requirements resulting from either the IRB risk based approach (unfloored), the 72.5% floored risk weights based on the Basel III requirements only or from the leverage ratio would be applicable. As the use of IRB models is de facto already subject to two backstops (PD & LGD input floors and the leverage ratio), the introduction of a 'gold plated' European OF of 72.5% essentially represents a third backstop which is considered by the Industry to be unnecessary and will ultimately penalise primarily low risk business such as mortgage lending.

The research carried out by Copenhagen Economics shows that the whole value chain from lending to funding is impacted by the OF. Based on their analysis, the following five conclusions on the preferable implementation of the package can be provided.

4.1 CONCLUSION N°1: THE OUTPUT FLOOR (OF) OF 72.5% PROVES TO BE PARTICULARLY DETRIMENTAL FOR A MAJORITY OF MORTGAGE MARKETS WITH SUBSTANTIAL IRB EXPOSURES

Whereas the overall Banking Package triggers an average capital increase for the entire banking sector of 6-8%, there is strong evidence that certain types of mortgage lending are impacted much more significantly: the average additional capital needs for mortgage portfolios are expected to increase by 18%. The main driver for such an incommensurate capital increase is the output floor of 72.5%. Around two-thirds of IRB exposures in the mortgage market of the European Union (EU) are bound by the output floor.

An 18% capital increase is almost 2 times higher than the average weighted capital increase triggered by all other banking assets. It is furthermore far beyond the initial target ratio. At the beginning of the process, the G-20 mandate provided guidance that Basel III should not result in significant capital increases across the banking sector (below 10% additional capital). But in reality, an important share of banks' balance sheets is affected: the 18% increase, in the markets assessed, applies to 28% of the total EU credit assets (outstanding mortgage loans in the EU of around EUR 8 tn, equal to almost 50% of EU GDP).

The size of this increase is even more remarkable as mortgage lending is recognised as a low-risk business and is correlated with some of the lowest loss rates across the EU. But the OF impact does not reflect this correlation. To the contrary, the lower the risk of the underlying mortgage exposures, the higher the additional capital needs of IRB institutions could be. Banks might be inclined to reduce the percentage capital increase by adding higher risk exposures to their portfolio. Such a mechanism would not only set the wrong incentives but also points to a substantial misalignment between the risk profile of the underlying exposures and the design and calibration of the OF. The result is a significant loss of risk sensitivity, which translates in mortgage markets carrying some of the strongest additional capital burden triggered by the implementation of the OF.

An underlying justification for the introduction of the OF relates to the reliability of IRB models. However, these models and the associated data requirements are put through rigorous approval procedures. The ECB conducted a targeted review of internal models from 2016 to 2020 (TRIM). And the EBA designed a corresponding IRB Roadmap with new guidelines and standards that have been implemented by banks. IRB models are not only under constant monitoring and benchmarked by supervisory authorities, but the EBA already confirmed in 2016 that there is no robust evidence that IRB models are pro-cyclical.

4.2 CONCLUSION N°2: IRB BANKS EXPECT AVERAGE CAPITAL INCREASES OF 24%

Focusing the impact assessment on IRB banks, the additional capital needs are even higher: these banks will be confronted with an average capital increase of 24% for their mortgage loan books. Distributing this figure between the different customer types, it can be concluded that:

- household mortgages carry capital increases of 17% (11% including banks using the standardised approach/STA banks)
- SME mortgages carry capital increases of 26% (23% including STA banks) what represents a substantial additional capital burden to the detriment of the backbone of the European economy
- corporate or commercial mortgage loans carry capital increases of 44% (40% including STA banks). Such an increase could constitute a serious challenge for the funding of the real economy of the EU.

4.3 CONCLUSION N°3: A PERMANENT FAVOURABLE REGIME FOR LOW-RISK RESIDENTIAL MORTGAGES IS REQUIRED IN ORDER TO MITIGATE MAJOR NEGATIVE CONSEQUENCES FOR CONSUMERS

It is vital that the transposition of the OF into the CRR is calibrated as neutrally as possible for residential mortgages. The target should be to avoid any substantial interest rate increases for private homeowners. Otherwise, the affordability of homeownership would be at stake.

In order to achieve this target, the proposed 'transitional arrangements' for low-risk residential mortgages must be maintained and turned into a permanent regime, and this across all Member States and not at Member State discretion. Permanence is all the more justified as mortgage lending is generally designed as a long-term business which remains on the balance sheet of lenders until full redemption of the loans. In contrast to the 'originate to distribute model', the balance sheet tradition acts as a very efficient consumer protection tool where lenders accompany households over decades, addressing problems where relevant and being available to find appropriate solutions.

Should IRB banks be forced to securitise their mortgage assets in order to reduce higher capital costs, consumers could find themselves in front of anonymous and possibly foreign Special Purpose Vehicles (SPV) holding their debt and primarily led by investment and profitability interests. Beyond off-balance funding schemes of mortgages, another potentially detrimental effect for consumers would consist of the risk of mortgage businesses be shifted from regulated lenders to non- or less regulated market participants. Consumers might ultimately be confronted with capital providers who are commonly allocated to the 'shadow banking market'.

A long-term relationship with households, alongside the dual recourse nature of mortgages, comes with a risk mitigation effect. There is no more robust and objective a tool for the measurement of the 'real' risk profile of exposures than loss rates (hard test requirement in Art. 465 par.5 CRR). In case of compliance the proposed treatment under Art. 465 par.5 CRR would be justified without time limitation.

Finally, a permanent favourable regime for household mortgages is fundamental in order to address the climate change challenges, i.e. the investment needs triggered by the decarbonisation of the building stock and building renovation. In a context where more than 220 million homes in Europe need to be renovated to meet the EU 2030 climate targets, this equates to renovation at a rate of in excess of half a million homes per week. The scale of the investment needed to meet this challenge is huge and cannot be achieved by the public sector alone. The EU's mortgage markets have a central role to play in this regard. The real breakthrough of a net-zero Europe will come through the large-scale use of green mortgages, as highlighted by the Energy Efficient Mortgages Initiative (EEMI), which seeks to introduce a greener, sustainability-focused approach to purchasing, renovating and living in homes by way of an 'ecosystem' aligning the interests of lenders, investors, SMEs, utilities and, above all, consumers. Higher capital costs for mortgage lenders triggered by a 72.5% OF would undermine this role and these efforts.

4.4 CONCLUSION N°4: AN AVERAGE CAPITAL INCREASE OF 44% FOR IRB COMMERCIAL MORTGAGE EXPOSURES REQUIRES A TREATMENT SIMILAR TO RESIDENTIAL MORTGAGE EXPOSURES BASED ON HARD TEST REQUIREMENTS

The traditional commercial mortgage business of IRB banks will be charged with a capital increase of 44%. Additional capital charges of 26% for mortgage loans to SMEs are also substantial, although these exposures benefit from the SME supporting factor. Both figures represent a material burden for the funding of the real economy. Many economic sectors and their growth capacities will be affected.

Corporate mortgage lending will be fundamental to the transition towards a climate-neutral economy and the implementation of national housing policies. It is a major catalyst for the development of an ecosystem comprising a broad spectrum of stakeholders which can support financial stability and the attainment of the 2050 emission targets, in line with the EU Green Deal and the Renovation Wave Strategy. More specifically, commercial mortgages, together with households, are paramount for the funding of the renovation of the EU's building stock, 35% of which is over 50 years old and almost 75% of which is energy inefficient. Disproportionate capital increases will hamper the release of funds needed to fight against climate change.

Again, there is no more robust and objective a tool for the measurement of the 'real' risk profile of exposures than loss rates (hard test requirements). Hence, there are no compelling supervisory reasons for not applying the hard test requirement to corporate mortgages as well. In case of compliance with the hard test requirements (0.25%), risk weights for corporate/commercial mortgages should be subject to a similar rationale, i.e. be calibrated in consistency with those for residential mortgages.

4.5 CONCLUSION N°5: THE INTRODUCTION OF AN OF OF 72.5% PRESENTS A SYSTEMIC CHALLENGE FOR LOW RISK ON-BALANCE MORTGAGE BUSINESS MODELS AND FOR COVERED BOND FUNDING

As referenced under the 1st conclusion, the research provides evidence that the more IRB mortgage lenders are specialised on secured real estate finance, the more constraint they are by the OF. This is particularly valid and possibly surprising compared to IRB institutions whose balance sheets consist of bigger shares of unsecured corporate exposures or even investment banking assets. It is therefore fundamental that legislators and bank supervisors consider the whole value chain of the mortgage lending process and their correlations. The main components are capital cost (profitability), risk profile, on-balance sheet lending, long-termism and long term funding through covered bonds. All these components are strongly correlated.

As regards capital cost, risk profile and on-balance sheet lending, a reduction in the profitability of the mortgage business could incentivise IRB banks to sell their mortgage assets to SPVs and/or reduce new lending. Off-balance sheet funding would reduce the availability of eligible cover assets for covered bond funding. This would not only represent a threat to the on-balance sheet nature of the EU mortgage business but also challenge the viability of covered bonds, which provide crucial long-term access to global capital markets.

It also appears conclusive that less risk sensitive capital requirements undermine the stimulus for IRB banks to lend to low risk customers but increase the incentives for higher-risk lending. This will not only put upward pressure on the cost of mortgage lending for both households and corporates. Higher-risk lending might also conflict with the conservative eligibility criteria for covered bond funding. Indeed, the OF primarily impacts on those low-risk mortgages which are eligible for covered bond funding in accordance with the new EU Covered Bond Directive (Directive (EU) 2019/2162 on the issue of covered bonds and covered bond public supervision).

It appears rather inconsistent to introduce higher capital requirements for those mortgage exposures which are considered particularly safe by European legislation and therefore suitable as cover assets for the issuance of "European Covered Bonds – Premium" thereby limiting future covered bond volumes and weakening one of the most crisis resilient funding instruments which on the other hand is supposed to be promoted and further strengthened by the EU Covered Bond Directive.

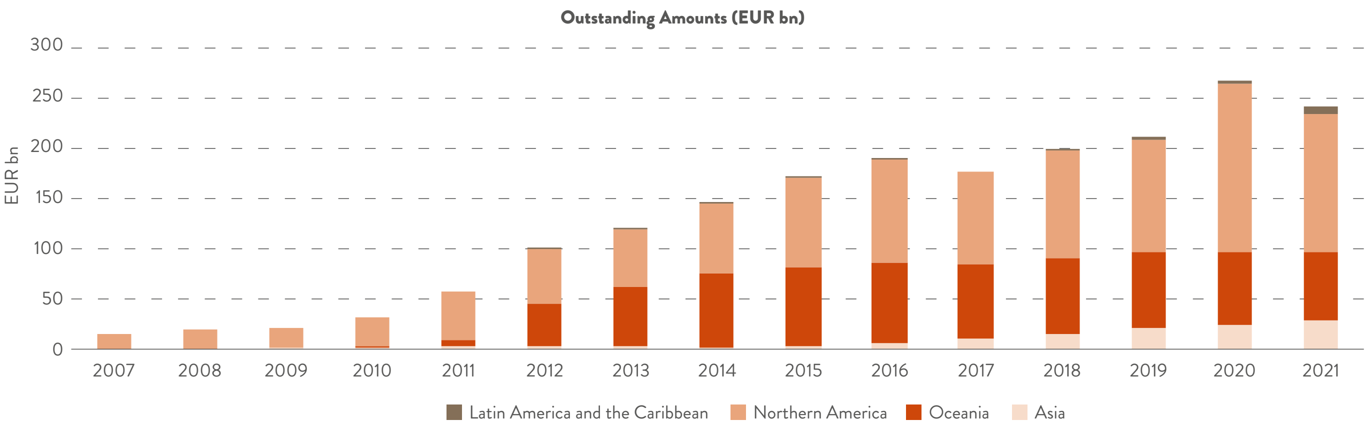
Covered Bonds And Global Mortgage Lending

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

Covered bonds – debt instruments secured by a pool of assets – have been an overwhelmingly European phenomenon for most of their 250-year history. However, things changed after the financial and eurozone crises, with banks issuing covered bonds for the first time in new markets such as Australia, Canada, and Singapore. Understanding the factors behind these success stories is key to understanding the role that covered bonds can play in financing housing markets outside Europe.

According to the European Mortgage Federation, covered bonds finance around 25% of European mortgage loans. Several factors explain their popularity with issuers and investors. Issuers like the ability to diversify their funding sources away from short-term deposits and toward longer-term instruments, which better match the maturity of their mortgage book. Covered bonds are cheaper and often come with longer maturities than other funding sources, such as unsecured bank debt. Investors like the additional security that comes from having dual recourse to both the issuing credit institution and a cover pool of financial assets, usually prime mortgage loans. Covered bonds generally have higher and more stable ratings than the issuing banks, and there are no known examples of covered bonds ever defaulting over their long history.

FIGURE 1 | COVERED BONDS ARE GROWING RAPIDLY OUTSIDE EUROPE



Sources: European Covered Bond Council, S&P Global Ratings.

Importantly, this perceived safety explains why covered bonds have proved to be a resilient source of funding in times of financial turmoil. Even banks in markets more affected by the eurozone sovereign debt crisis, such as Italy and Spain, were able to issue covered bonds when other sources of wholesale funding evaporated. Credit institutions and regulators outside the traditional European markets duly noted this, and expedited the approval of legislation governing covered bond issuance.

1. THE IMPORTANCE OF THE LEGAL FRAMEWORK

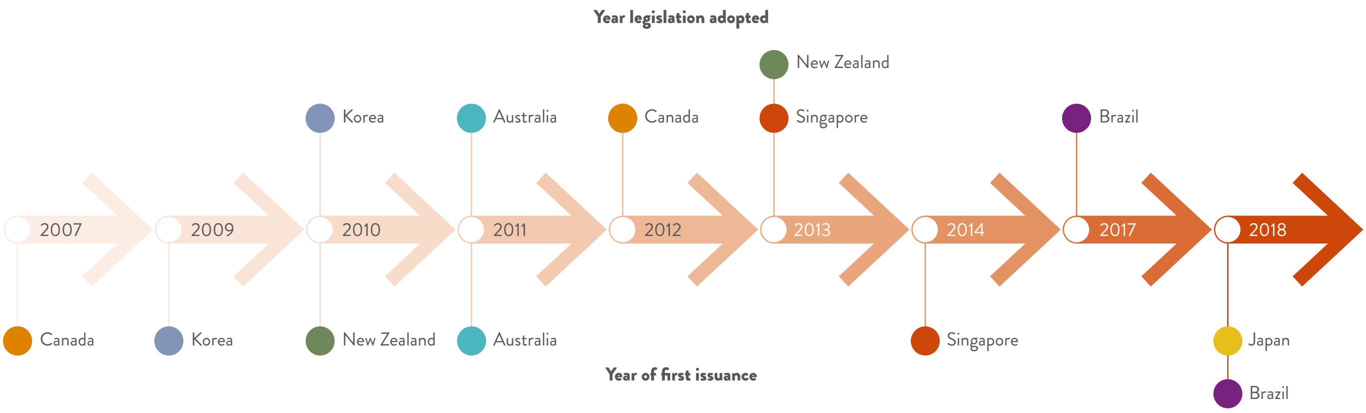
Even though there isn't just one recipe for the development of a new covered bond market, we know some of the ingredients. Three seem to matter the most: a robust legal framework, a convincing business case, and a strong credit story.

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

When the Australian federal government decided to expand the funding options available to local banks in the aftermath of the great financial crisis, it amended the country's Banking Act, allowing the issuance of covered bonds. Volumes have taken off rapidly since then. Similarly, authorities in Singapore and South Korea introduced dedicated frameworks as a first step toward creating local markets.

Exceptions are possible but uncommon. Issuers can establish programs that replicate the main features of a dedicated legal framework by means of contractual arrangements, issuing so-called structured covered bonds. From 2007 to 2012 Canadian banks issued covered bonds based on a contractual framework, but dedicated legislation was introduced in 2012. Similarly, the first two Japanese programs have been established based on a contractual structure, due to the lack of dedicated legislation, but many market participants expect that the authorities will step in and introduce a dedicated framework once issuance grows.

FIGURE 2 | STRUCTURED COVERED BONDS CAN PRECEDE LEGISLATIVE FRAMEWORKS BUT RARELY SUFFICE



Sources: European Covered Bond Council, S&P Global Ratings.

It is worth considering that the legislative process can take longer than expected, and even prove unsuccessful. Morocco was the first country in Africa to release draft covered bond legislation in 2013. However, the final law has still not been approved, a testament to the difficulties of navigating such a legislative process. Poland introduced dedicated legislation in 1997, but issuance only really took off in 2016, once substantial amendments came into force.

A robust legal framework appears to be a necessary condition for the success of a new covered bond market, but on its own 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.

2. THE BUSINESS CASE AND THE CREDIT STORY

Covered bonds can thrive when issuer and investor incentives are properly aligned. Banks find covered bonds attractive when their mortgage book is growing and alternative funding options are limited. This was the case for many issuers in Canada and Australia after the financial crisis: customer deposits financed a limited percentage of domestic loans by international standards, and alternative sources of funding, such as securitisation, proved to be less reliable than previously expected at a time of market stress.

Does it mean that issuers who fund most of their assets with customer deposits won't consider covered bonds? Not necessarily. Korea and Singapore pioneered covered bond issuance in developed Asia, even though local banks are mainly funded by customer deposits. Their primary motivation for launching covered bonds was to manage asset-liability mismatch risk, diversify their investor base, and lower their funding costs.

Central banks' quantitative easing measures have depressed bond yields in recent years, encouraging European investors to consider alternative—but not necessarily riskier—options, outside traditional markets. Most covered bonds outside Europe still come from banks located in countries with high sovereign ratings. This was probably inevitable, since investors needed to familiarise themselves with new issuers, legal frameworks, and mortgage markets. While this doesn't preclude future issuance from banks located in countries with lower sovereign ratings, it points to the importance of a strong credit story.

Market volatility may also complicate 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. While in more established markets financial institutions have been able to issue covered bonds even in times of market turmoil, this is not a foregone conclusion for new market entrants, especially lower down the rating scale. Turkey saw its first euro-denominated benchmark covered bond issuance in 2016, but market volatility and political uncertainty have prevented further international issuance since then.

3. CAUTIOUS OPTIMISM FOR ISSUANCE IN DEVELOPED MARKETS

Covered bonds are poised to play a greater role in mobilising private capital toward mortgage financing outside Europe, with significant differences between developed and developing markets. Since the potential for asset growth in developed countries is limited, we expect the stimulus for further issuance may come principally through regulatory initiatives and evolving market conditions.

Most developed countries have already adopted a covered bond framework. One exception is the U.S., where securitisation supported by the government agencies Fannie Mae and Freddie Mac limits the demand for alternative funding sources. Another exception is Japan, where the development of a local structured covered bond market could encourage the legislator to act. But regulatory developments may still affect issuance, even where a dedicated framework exists. First, asset encumbrance limits, which constrain volumes by capping the amount of banks' assets which can be included in cover pools, can be revised. The Monetary Authority of Singapore has recently increased the asset encumbrance limit to 10% from 4% of the issuer's total assets. This could lead to an increase in existing programs' sizes and might incentivize new banks to establish programs. Second, loss-absorbing rules can favor covered bonds over other debt instruments: in Europe covered bonds are exempt from bail-in, while senior unsecured debt is not. Similar regulation can be introduced elsewhere, making covered bonds more attractive for investors. The resolution regime that came into force in Canada in 2018 excluded covered bonds from bail-in, confirming the favorable regulatory treatment enjoyed there. Third, under the EU Capital Requirements Regulation, European covered bonds benefit from a preferential risk weight treatment. The latest round of Basel reforms could lead to other countries, such as Australia, Korea, and Singapore, providing for a similar preferential risk weight treatment for local covered bonds.

Current volatile market conditions, caused by geopolitical turbulence, tightening monetary policies, and a deteriorating economic outlook, could also support issuance in existing markets. Established, highly-rated issuers will probably use their covered bond programs more, especially if other sources of funding, such as senior unsecured bank debt, become relatively more expensive or difficult to place with investors. At the same time, market volatility may complicate issuance plans for programs in new jurisdictions.

TABLE 1 | STRONG GROWTH POTENTIAL BUT LEGISLATIVE SUPPORT NEEDED

COUNTRY	LONG-TERM SOVEREIGN CREDIT RATING	GROSS DOMESTIC PRODUCT (EUR BN)	EXPECTED POPULATION GROWTH 2020-2040 (%)	HOUSEHOLD DEBT (% OF GPD)	DOMESTIC LOANS (% OF DOMESTIC DEPOSITS)	DEDICATED COVERED BOND LEGISLATION	COVERED BONDS OUTSTANDING (EUR MN)
United States	AA+	20,217.10	10.75	77.98	111.45	No	--
China	A+	15,590.07	0.67	67.57	121.05	No	--
Japan	A+	4,339.98	-10.37	63.31	61.48	No	6,174
India	BBB-	2,183.50	15.41	22.86	78.05	No	--
Canada	AAA	1,750.08	15.22	107.48	160.32	Yes	138,436
Korea	AA	1,592.02	-2.90	108.39	113.95	Yes	9,966
Brazil	BB-	1,414.46	7.76	31.24	111.57	Yes	7,609
Australia	AAA	1,356.48	19.89	101.07	174.00	Yes	57,864
Mexico	BBB	1,135.89	16.15	16.29	114.94	No	--
Indonesia	BBB	866.54	16.49	10.02	96.75	No	--
Saudi Arabia	A-	732.77	22.00	39.12	108.72	No	--
Thailand	BBB+	444.81	-1.13	89.69	106.58	No	--
Nigeria	B-	379.79	59.63	1.30	88.41	No	--
Israel	AA-	424.07	30.93	44.41	101.77	No	--
Argentina	CCC+	429.77	15.71	6.10	55.11	No	--
Egypt	B	355.31	37.15	8.79	52.99	No	--
Philippines	BBB+	346.44	23.76	10.18	82.95	No	--
Singapore	AAA	349.00	10.17	68.16	91.63	Yes	11,087
Malaysia	A-	327.64	19.74	89.02	153.19	No	--

Sources: S&P Global Ratings, European Covered Bond Council.

4. GREATER POTENTIAL BUT ALSO BIGGER HURDLES FOR NEW MARKETS

Emerging covered bond markets have the greatest growth potential, but also formidable obstacles ahead of them.

The Brookings Institution forecasts that the share of middle-class purchasing power – as defined by individuals who have an income between USD 10 and USD 100 a day – will increase by 2030 to 22% of the global total in China, and to 17% in India, while decreasing to 20% in Europe and 10% in North America. A burgeoning middle class and a shortage of good quality housing should stimulate the expansion of mortgage financing, with household debt converging toward the levels reached in developed economies. And when mortgage lending grows faster than customer deposits, banks are incentivise to access the wholesale funding markets, using mortgage loans as collateral for issuing secured bonds – such as covered bonds or securitisations.

A major impediment to the development of covered bonds in new markets is the lack of dedicated legal frameworks, and we have learned how the legislative process can be complex and time-consuming. Despite the success of the first Japanese issuances, we don't believe that many financial institutions outside this country will establish programs based entirely on a contractual framework. Most potential new issuers will wait for the approval of a dedicated covered bond legal framework, or at least an appropriate supportive regulatory framework, in our view. At the same time, we are encouraged to see that a growing number of regulators, in China and India among others, are considering the product. And if it proves successful in Brazil, we expect to see similar legislative initiatives in other parts of Latin America.

Current market conditions could also impede issuance out of new countries, especially down the rating scale. Even when markets stabilise, issuers and regulators will have to work closely to create a compelling credit story for traditional covered bond investors. But history shows that it can been done.

Until two decades ago, more than 90% of outstanding covered bonds were issued out of three 'AAA'-rated countries: Germany, Denmark, and France; since then, issuance has expanded to many more countries with lower ratings, even sub-investment grade. Similarly, until the onset of the eurozone crisis, almost 90% of covered bonds were rated 'AAA'. Since then, investors have been investing more in non-'AAA' rated covered bonds, and we have seen issuance out of 'BBB'-rated programs.

If authorities want to reduce housing deficits and help financial institutions diversify their funding tools, they should create the right conditions for covered bonds to establish a foothold in new markets. The process will take time, several years in some instances. But with an appropriate framework, the right incentives, the right timing, and appropriate pricing, covered bonds could thrive, even in these new markets.

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

Accelerating the just energy transition in the real estate sector: Energy efficiency amid an energy crisis

By Luiz de Mello (OECD) & Danae Kyriakopoulou (LSE)

1. INTRODUCTION

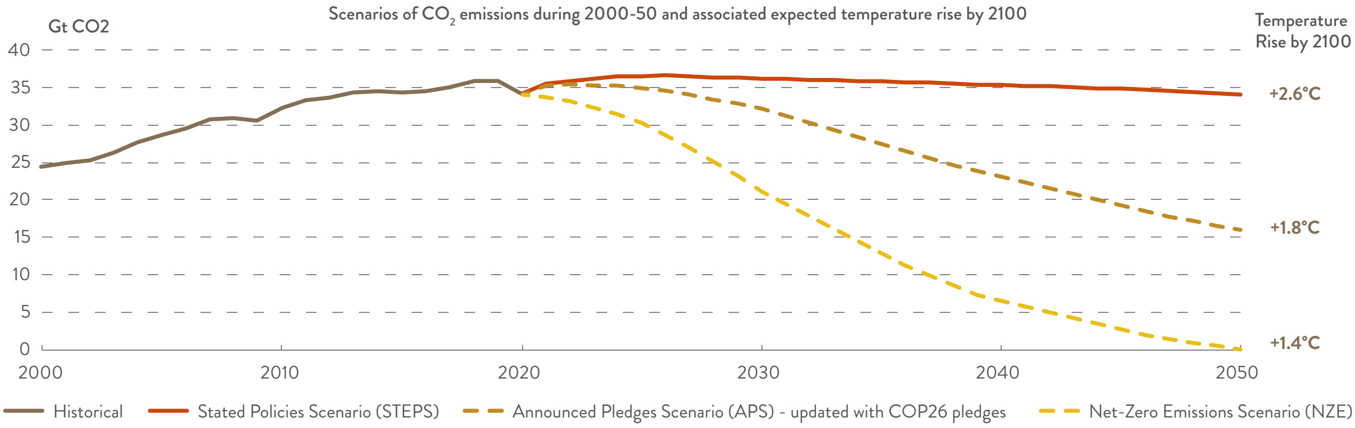
Economies across the world are facing the triple challenge of intensifying climate change, energy supply vulnerabilities due to the ongoing war in Ukraine and cost pressures to businesses and households as a result of rising interest rates and inflation, particularly in fuel and food. The imperative to accelerate the just energy transition is now even stronger in the face of these challenges.

This contribution presents data and evidence on the need for steadfast policy action to foster the transition to a low-carbon economy to meet agreed climate change targets within relevant timeframes. The real estate sector is particularly important in this endeavour, since it accounts for a large share of energy consumption and CO_2 emissions around the world, essentially in relation to the cooling and heating of buildings, as well as the use of domestic appliances. This transition will require investments in sustainable energy and improvements in the energy efficiency of buildings. Moreover, this contribution explores how to do so, focusing on the role of policy-makers and financial institutions and highlighting some of the opportunities and challenges, exploring how the latter can be addressed.

2. A SHIFTING MACROECONOMIC AND GEOPOLITICAL ENVIRONMENT

A major scale-up and transformation of energy markets is key to delivering both on climate change targets and economic development objectives globally. This transformation needs to be grounded in a just transition that ensures energy security, access and affordability for all to meet growing demand (particularly from emerging markets and developing economies), while at the same time reducing emissions. To achieve this, regulatory and fiscal incentives will be required to encourage a move towards alternative energy sources, develop secure clean energy and spur energy efficiency. Some progress in this direction has been made in recent public investment plans, but more needs to be done to honour the commitments made at COP26 (Figure 1).

FIGURE 1 | GLOBAL EMISSIONS OF GREENHOUSE GASES, 2000-50



NOTES: The Announced Pledges Scenario (APS) is updated with COP26 pledges as of November 3rd, 2021; the Net-zero Emissions Scenario (NZE) shows the global energy-related emission pathway developed by the IEA where technology, investments and policies are deployed in line with the objective of reaching net-zero emissions by 2050. Expected temperature rises by 2100 are relative to pre-industrial levels, and are subject to an upward risk due to uncertainties in the estimate and possible future changes in policy.

Sources: IEA (2021), CO_2 emissions in World Energy Outlook scenarios over time, 2000-2050, IEA, Paris; IEA (2021), Temperature rise in 2100, by scenario, IEA, Paris; and IEA (2021), World Energy Outlook 2021, IEA, Paris.

Bold policy changes will be necessary to deliver this outcome. Steadfast policy action is becoming even more pressing as climate change intensifies, as evidenced by the rising frequency and intensity of extreme weather events. Also, policy choices are becoming even more challenging amid upheaval in global energy markets. The war in Ukraine is driving up the price of fossil fuels and other commodities, bearing down on the recovery from the pandemic. Indeed, prior to the war, growth and inflation were returning to normality as economies reopened and pandemic-related supply-side constraints waned. Global GDP growth is now projected by the OECD to slow to close to 3% in 2022, about 1.5 pps lower than projected before the outbreak of war (OECD, 2022).

In addition to slower growth, the global economy will face much higher inflation than expected before the outbreak of war. Commodity prices have risen substantially, reflecting the importance of supply from Russia and Ukraine in many markets, especially food and energy. Together, both countries account for about 30% of global exports of wheat, 20% for corn, mineral fertilisers and natural gas, and 11% for oil. They are also important suppliers of metals and inert gases that are crucial for the deployment of clean energy technologies.

Supply-side pressures have also intensified as a result of continued shutdowns in major cities and ports in China due to the zero-Covid policy. The OECD now projects consumer price inflation at about 8% in the OECD area as a whole, before receding slowly in 2023, as supply-chain and commodity price pressures wane and as a result of monetary policy action.

The economic outlook is fraught with uncertainty, with a number of downside risks. They include greater than expected effects of the war in Ukraine, with more drastic energy supply disruptions and financial contagion. Inflationary pressures could also prove stronger than expected, prompting faster wage growth amidst tight labour markets and stronger policy responses, leading to tighter financial conditions that may expose vulnerabilities from high debt and asset prices. The evolution of the pandemic also poses risks associated with the emergence of new more aggressive or contagious variants.

3. HOW HAVE POLICY AND INVESTMENT REACTED?

The deterioration of the global outlook, with slower growth and higher inflation, is challenging the conduct of macroeconomic policy, both fiscal and monetary, as well as investor behaviour.

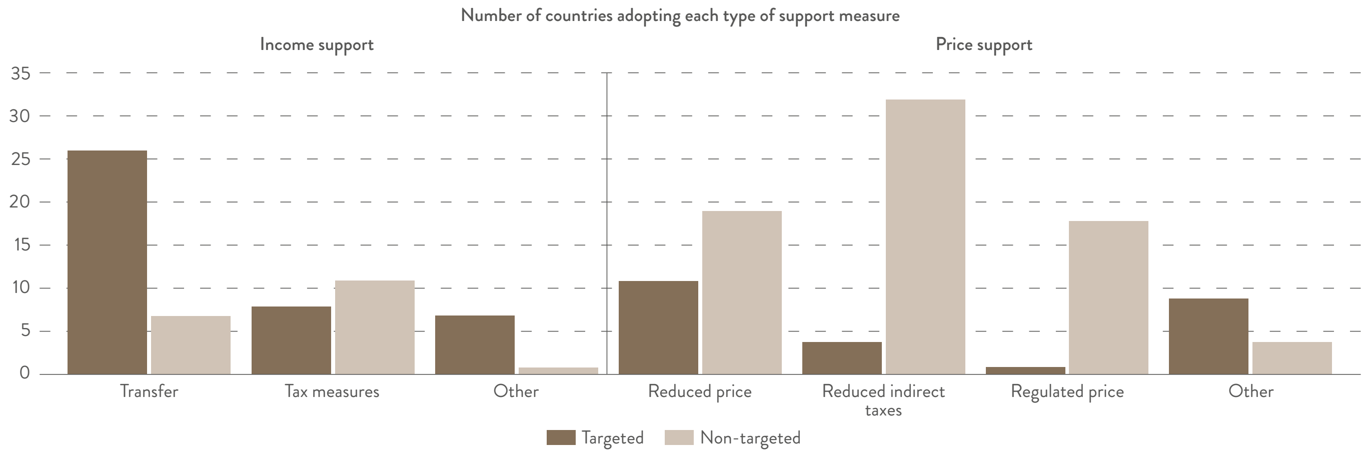
FISCAL AND MONETARY POLICY

Many countries have reconsidered their fiscal consolidation strategies. They have continued to withdraw pandemic-related support but have had to deal with new budget pressures linked to the provision of frontline services to Ukrainian refugees, as well as support for households and businesses to cope with surging energy and food prices. Especially in Europe, where gas prices have increased the most, countries have introduced a variety of targeted programmes involving means-tested transfers to vulnerable households, as well as measures related to the introduction of price caps for energy end-users and reductions of taxes on energy (OECD, 2022). To help finance those support schemes, a number of European countries have enacted windfall profit taxes on energy companies.

Policy interventions have highlighted the tensions that exist between shielding vulnerable social groups from the adverse effects of high energy prices and the transition to carbon neutrality (Figure 2 and Annex 1). Price measures, such as decreases in taxes on energy and the introduction of price caps, are costly to the budget and potentially regressive, as they benefit all consumers, economically vulnerable or not. These measures also weaken price signals and therefore incentives to reduce energy consumption and improve the energy efficiency of buildings and industry.

Against this background, there is significant scope to redirect budgetary resources to measures that support climate and economic development objectives at the same time, resolving the misperception around trade-offs between the two. A 2021 study by the International Monetary Fund (IMF) found that global fossil fuel subsidies amounted to around USD 6 tn in 2020, equivalent to around 7% of the global economy. More than 70% of this reflects undercharging for environmental costs (IMF 2021). Removing such subsidies and aligning fossil fuel prices with levels reflecting environmental and supply costs could help cut global carbon emissions by around a third. Additional public revenues could also be redirected to boost sustainable investments that help address climate and development objectives. These could include the ramp up of deployment of renewable energy and green hydrogen production and the electrification of the transport and industry sector. Rising energy prices have contributed to a surge in inflation, posing challenges for central banks operating in an environment of above-target price rises and slowing growth. Inflationary pressures were already proving stronger and more persistent than anticipated before the outbreak of war. Monetary policy normalisation has therefore intensified, with central banks raising policy interest rates and terminating or reducing net asset purchases in a growing number of major economies. Several central banks have also started to discuss or implement strategies for balance sheet reduction. Moving forward, central banks will need to ensure inflation expectations remain well hinged around targets and intervene if needed to ensure the smooth functioning of financial markets.

FIGURE 2 | SUPPORT TO ENERGY CONSUMERS



NOTE: The figure is based on data collected for 35 OECD member states plus Bulgaria, China, India and Romania up to 30 May 2022. Support measures fall under two categories: income support (including lump-sum transfers to consumers) and price support measures, which lower energy prices paid by consumers. For income support, 'Other' includes loan guarantees for energy companies. For price support, 'Other' includes energy market regulatory changes. Targeted measures resort to means-testing or benefit only certain categories of consumers based on their energy consumption and other criteria. Non-targeted measures apply to all consumers with no eligibility conditions.

Source: OECD Economic Outlook database.

INVESTOR BEHAVIOUR

The current crisis has highlighted and exposed the vulnerability of investors to sustainability-related risks and financial materiality. In response to the crisis, and even before the introduction of sanctions against Russia, many investors including big pension funds began considering divesting their Russian-related assets that risk becoming stranded. Looking ahead, many investors are also preparing for climate change by adapting their investment strategies to manage risks from potential stranded assets in the fossil fuel industry. According to the Global Fossil Fuel Divestment Commitments Database, there are currently over 1500 institutions totally worth over USD 40 tn that are partially or wholly divesting their fossil fuel investments. At the same time, many investors are shifting towards sustainable investments, which are quickly becoming the norm: according to the Global Sustainable Investment Alliance, sustainable investment assets under management grew to USD 35.3 tn in 2020, up from USD 30.7 tn in 2018 (GSIA, 2021).

4. THE IMPERATIVE OF ENERGY EFFICIENCY: IMPLICATIONS FOR THE REAL ESTATE SECTOR

Policies aimed at improving energy efficiency can deliver on both climate and economic development objectives. The IPCC highlights energy efficiency as one of the critical channels that can enable the transition of the energy sector and contribute to the reduction of greenhouse gas emissions (IPCC, 2022). Not only that, but energy efficiency improvements can also help reduce fossil fuel import dependence and make energy systems more resilient, as well as lower costs for vulnerable households and contribute to sustainable and inclusive development objectives. Still, improvements in energy efficiency need to intensify to align with the ambition for Net Zero Emissions by 2050. In the scenarios reported by the IEA, the rate of improvement in global energy intensity would need to double from current levels. This compares to very slow progress so far at 1.3% per year on average between 2016-21 (IEA, 2021).

The real estate sector in particular is a heavy energy user with significant scope for efficiency gains: buildings account for about one-third of total energy consumption worldwide, essentially because of the use of electricity for heating, cooling, lighting and use of domestic appliances (Figure 3). Energy consumption also depends on the thermal capacity of buildings, as well as habits and behaviour. As a result of its energy consumption, the real estate sector accounts for a large share of emissions of greenhouse gases.

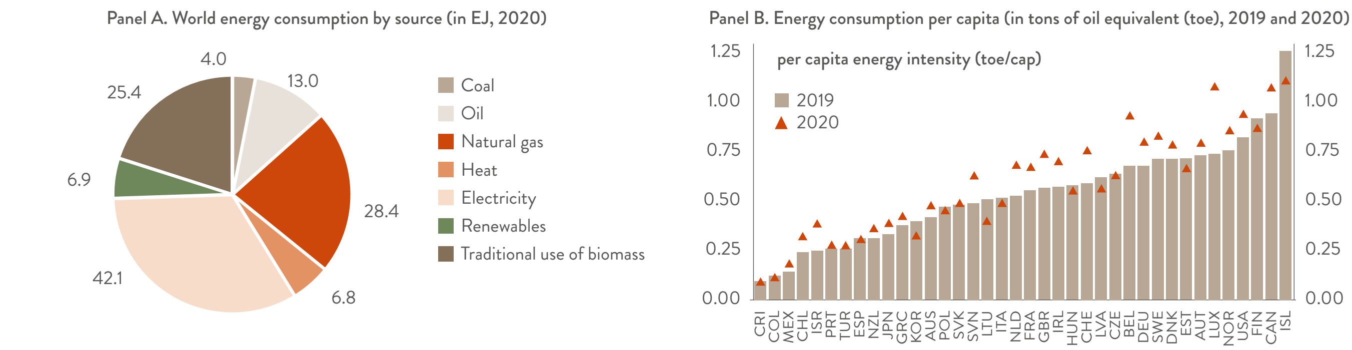
Energy efficiency is therefore a crucial element of carbon abatement strategies for the real estate sector.[1] In the case of new buildings, energy efficiency can be regulated through norms and standards embedded in building codes. Indeed, energy efficiency standards will need to be raised for new buildings since demand for real estate will continue to increase, especially in emerging-market and developing countries, where populations are growing and standards are low.[2]

As for existing buildings, which account for the bulk of the real estate sector, energy efficiency improvements require considerable energy retrofitting. Currently, less than 1 per cent of buildings are retrofitted on average per year in the advanced economies, whereas achieving net zero by 2050 would require an average retrofit rate of about 2.5 per cent in 2030, or the equivalent of 10 million dwellings, according to the IEA projections.[3] However, investment in energy efficiency improvements is discouraged by a mismatch of incentives along the tenure spectrum, which ranges from owner-occupiers and landlords to renters in the residential market. For example, landlords are discouraged from investing if they cannot capitalise the associated costs in higher selling prices or rents.

Moreover, investment in energy retrofitting is held back by a dearth of finance. Asymmetries of information between borrowers and lenders increase the cost of capital and limit access to affordable financing from market sources. For example, banks cannot evaluate the effect of lower energy costs on credit quality if they do not have information on the energy performance of buildings or modelling capacity to use the information, where available, in their underwriting practices. Efforts to improve energy labelling and certification of buildings and make the information available to lenders are steps in the right direction. The latest revision to the European Union's Energy Performance of Buildings Directive (EPBD), launched in December 2021, is a case in point by introducing new energy performance standards, including minimum standards for existing buildings, zero-emission standards for new buildings from 2030, and new standards for data collection and dissemination.

Policy action in complementary areas would also help. For example, improving taxonomies and disclosure standards for environmental, social and governance (ESG) investment more broadly would help to reduce the cost of capital for lenders. In addition, green mortgages and other innovations have a role to play, along with continued government support for borrowers who do not have access to finance from market sources, including through government-financed energy retrofitting investments in the social housing sector.

FIGURE 3 | REAL ESTATE SECTOR: FINAL ENERGY CONSUMPTION



NOTE: In panel B, energy consumption includes space heating and cooling, water heating, cooking and appliances.

Source: IEA (2021a); Energy Efficiency Indicators, IEA, 2020 edition.

[1] See de Mello, L. (2022), "Real estate in a post-pandemic world: How can policies make housing more environmentally sustainable and affordable?", *Hacienda Pública Española*, forthcoming.

[2] See OECD (2021), *Brick by Brick: Building Better Housing Policies*, OECD, Paris.

[2] See IEA (2021a), *Net Zero by 2050, A Roadmap for the Global Energy Sector*, IEA, Paris.

BOX 1: JAPAN CASE STUDY

The 2011 'Great East Japan Earthquake' and associated Fukushima nuclear disaster created new and unexpected challenges for the country's economy and energy system. Nuclear energy at the time met around 30% of national demand, and the disaster created a big hit on Japan's conventional generation capacity, creating significant risks of power cuts.

In response, the "Setsuden" ("saving electricity") movement was born, with citizens and businesses encouraged to change their behaviour and conserve energy. Many changes were voluntary, but the government also introduced temporary policies aimed at improving energy efficiency to support the drive towards greater energy efficiency. For example, buildings with electrical usage exceeding 500 kilowatts at any time were mandated to reduce electricity usage by 15% and even 30% in the case of some larger companies, or risk fines up to JPY 1 mn. The running of public infrastructure was adjusted for energy conservation, with trains and escalators running more slowly.

Businesses and households responded with measures such as adjusting the dress code, office hours and vacation days in offices and using plants or curtains and paper fans to manage higher temperatures, and cutting down on lighting, including by switching to fluorescent or LED bulbs.

Overall, the substitution of electricity due to lost nuclear electricity was in its majority achieved through energy efficiency and saving (57%), with a further 30% met through increase in fossil fuel generated electricity and 13% through renewable energy (Kaberger et al., 2017).

What's more, the temporary measures in response to a disaster and emergency situation became long-lasting, as the events dramatically increased the awareness of energy use and energy efficiency and as companies invested in measures that supported this shift. The Japanese experience illustrates the power of behavioural change as energy-conscious practices became ingrained and led to permanent efficiency gains. The experience has also continued to shape policy as Japan's government has maintained a focus on energy efficiency measures. More recently, in April 2022, the government introduced a law that requires new homes from 2025 to meet energy saving standards to improve the energy efficiency of buildings.

BOX 2: CHILE CASE STUDY

Chile faced a double crisis of energy supply in 2007-08 as it lost most of its gas imports from Argentina (its sole supplier) at a time when its hydroelectric production was severely affected by drought.

The government's response was a policy package designed to incentivise energy saving through communication campaigns raising awareness about electricity consumption among households, delivering energy-efficient light bulbs to low-income families, and cutting electricity consumption in the government's own operations and offices, among others.

BOX 2: CHILE CASE STUDY (CONT.)

The strategy also focused on advancing the use of energy efficiency labels for household appliances. This is an area of strength for Chile, with the IEA commending the country in its 2018 review as a world leader in energy efficiency labelling for appliances (at the time labelling was mandatory for close to 30 products). Standards were also introduced for buildings, particularly social housing and private residential buildings.

Other measures included extending the daylight saving time to provide more light for households in the afternoon when electricity consumption was higher than average.

More recently, the country introduced the Chilean Law on Energy Efficiency (CLEE) in 2021 to establish a National Energy Efficiency Plan, a consumer registry with energy management capacity, and an energy efficiency label and rating report for buildings.

5. THE IMPORTANCE OF A JUST TRANSITION & THE CO-BENEFITS OF IMPROVING ENERGY EFFICIENCY

Delivering the transition to net zero for the energy and real estate sectors as outlined so far will require significant upfront investment and finance. Such financing commitments are sizeable, but they are still well below the social and economic costs associated with climate inaction. Still, the policy path towards decarbonisation is fraught with political economy challenges, as long-term benefits must be weighed against short-term social and economic costs.

In the current context of distress in energy markets and rising cost of living, it is particularly challenging to muster public opinion support for sustainability and climate action. In particular, concerns about the costs of delivering the net zero transition, and that these costs may be borne disproportionately more by vulnerable households, have emerged in the political debate in many countries.

While the benefits of action far outweigh the cost and risks of inaction, it is important that these are shared evenly. This is why ensuring that the energy transition is not just green, but also just and fair, is key. Measures directed at reducing emissions must simultaneously also be tailored to protecting vulnerable households in the face of the energy crisis. This includes housing and energy policies, where energy efficiency should be a key pillar.

Understanding the co-benefits, and linking through them climate action to issues that the public care about, can help policy-makers prioritise policy options that have a greater chance of public support for such changes (Dechezlepretre et al., 2022). These range from health and social benefits, to benefits to the economy and long-term security and resilience (for a summary see Figure 4).

HEALTH

The 2009 Commission on Climate Change, held jointly between The Lancet and University College London, identified climate change as 'the biggest global health threat of the 21st century' (The Lancet, 2009). Climate change affects health outcomes both directly and indirectly through socioeconomic and demographic drivers including through impacts on food security, climate-related migration and climate-sensitive diseases.

Among direct impacts, exposure to extreme temperature events such as heatwaves is one of the primary health risks, including via physiological stress and increased risk of cardiovascular disease, particularly among elderly and vulnerably groups. The WHO estimated that 1700 needless deaths were associated with the summer 2022 heatwave in Spain and Portugal alone (WHO 2022).

Energy efficiency measures can help reduce the health impacts of climate change. They contribute both to climate change mitigation by reducing energy use, and to adaptation to more extreme temperatures by creating healthier indoor environments in terms of temperature, air quality, noise and humidity levels (IEA, 2019). This has significant benefits both to physical and mental health and well-being. Such benefits are most noted when it comes to energy efficiency improvements in buildings, whether residential or commercial, in hot or warm climates.

By reducing the need for electricity generation, energy efficiency measures for buildings and transport also help reduce air pollution. Buildings (excluding their construction) are responsible for around 27% of global CO_2 emissions (UNEP, 2021). Improvements in energy efficiency can therefore also help improve air quality – a major cause of respiratory and other health issues – through a reduction in emissions. This has been a key driver of energy efficiency improvements in China where air pollution is particularly serious as a cause of more than 2 million premature deaths annually. In response the government has introduced mandatory energy savings programmes, building retrofits and heat-metering reforms that have helped create savings of 11% of total primary energy supply between 2000-14 (IEA, 2019).

SOCIOECONOMIC

Energy efficiency improvements lower the cost of energy and free up resources for households, businesses and governments. This is particularly important in the current juncture of rising energy costs. The IEA estimates that the cumulative efficiency improvements between 2000-17 in the UK cut households' annual energy expenditure by a fifth. It further estimates that if the world were to implement the cost-effective energy efficiency opportunities available today, savings could reach USD 201 bn for households by 2040 in the form of avoided expenditure on electricity and gas, and a further USD 365 bn for transport fuels (IEA, 2019).

The wider macroeconomy also benefits from energy efficiency improvements that raise employee productivity through better health and more pleasant working environments. The economy is further boosted through increased asset values for homeowners and commercial real estate owners and there is a rent and sales premium associated with improved energy performance of buildings.

Importantly, benefits from energy efficiency can be progressive, supporting vulnerable households, reducing fuel poverty and encouraging social mobility. Fuel poverty is becoming a particularly prevalent risk in the current context of the energy crisis. As noted above, governments can deploy a number of response measures to shield vulnerable social groups. A cost-benefit analysis of the 'Warm Up New Zealand: Heat Smart' programme found that support for energy efficiency retrofitting targeted to low-income housing delivered the greatest benefits. Studies have also shown that children living in inadequately heated households are more than twice as likely to suffer from asthma or bronchitis (Institute of Health Equity, 2011), and improvements in the ability to study at home can boost children's school performance and improve social mobility.

RESILIENCE AND SECURITY

The current energy crisis has exposed the vulnerability of energy systems to geopolitical events and disruptions to trade relations. Energy efficiency can help bolster resilience and energy security by reducing energy demand, in turn reducing reliance on energy imports and risks of black-outs and supply interruptions. As the IEA remarks, 'the only energy source that cannot be interrupted is the energy that is not used' (IEA, 2019).
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This applies both to households and businesses, who through energy efficiency improvements become less vulnerable to volatile energy prices, and to the wider macroeconomy (particularly energy importers) through improvements in the trade balance and reductions in the cost of energy storage and supply infrastructure.

FIGURE 4 | CO-BENEFITS OF IMPROVING ENERGY EFFICIENCY

POLICY ACTION	HEALTH	ECONOMIC	SOCIAL	RESILIENCE
Improve Energy Efficiency (e.g. enforce minimum energy efficiency standards, provide subsidies to encourage retrofits)	Reduced ill health through cold homes, increased wellbeing from access to more comfortable homes	Savings on fuel bills, especially for energy importers; Improvements in productivity from improved health; Improvements in housing affordability thanks to reduced cost of repairs	Reduced fuel poverty; Improved social mobility through improvements in ability to study at home; Protection from vulnerability to energy price increases	Resilience to future energy price increases and overheating; Reduce vulnerability to wider geopolitical events; Improve energy security and reliance on energy imports; Reduce risk of conflict over access to resources

Source: Authors' analysis

6. CONCLUSIONS

The coming decade is critical. The pandemic sharpened policy-makers awareness of the vulnerability of our economies to risks generated outside the financial system and created the imperative and opportunity of a strong and sustainable recovery, of 'building back better' for a more green, inclusive and resilient future. The war in Ukraine and the associated energy and cost of living crisis have thrown in new challenges to the sustainable development agenda, introducing false policy trade-offs between short term needs to 'keep the lights on' and actions to mitigate and adapt to an intensifying climate crisis.

Thankfully, across the financial industry and beyond, the debate has shifted from one on 'why' climate action is necessary to one of 'how' and 'how quickly' it can be delivered. A just energy transition will be central to meeting these challenges and will involve a substantial reduction in the use of fossil fuels, the increased use of alternative fuels (such as hydrogen) and renewables, and improvements in energy efficiency.

As argued above, the latter can tackle multiple crises at once: related to climate change, the economy and energy security. By reducing energy demand, energy efficiency improvements provide economic benefits to households, businesses and governments, while at the same time supporting emissions reductions and associated climate goals. At the same time, they offer important health and socioeconomic benefits, including potential improvements in productivity and social mobility. They also help to make energy systems resilient, reducing reliance and vulnerability to geopolitical events and disruptions in trade.

Initiatives, such as the Energy Efficiency Mortgages Initiative, presented in this report, can help accelerate the drive towards energy efficiency by enhancing the market infrastructure in the mortgages sector, introducing transparency and enabling the creation of incentives for both banks and their customers.

ANNEX 1. EUROPEAN RESPONSE TO ENERGY CRISIS

(i) EU-level measures

On 18 May 2022 the European Commission published its REPowerEU plan, which focuses on:

SAVING ENERGY

- The Commission proposed to enhance **long-term energy efficiency measures**, including an increase from 9% to 13% of the binding Energy Efficiency Target under the 'Fit for 55' package of European Green Deal legislation.
- It further published an 'EU Save Energy Communication' detailing short-term **behavioural changes which could cut gas and oil demand** by 5% and encouraging Member States to start specific communication campaigns targeting households and industry.

DIVERSIFYING SUPPLIES AND SUPPORTING OUR INTERNATIONAL PARTNERS

- The EU Energy Platform, supported by regional task forces, is designed to enable **voluntary common purchases** of gas, LNG and hydrogen by pooling demand, optimising infrastructure use and coordinating outreach to suppliers.
- As a next step, the Commission is considering the development of a '**joint purchasing mechanism**' which will negotiate and contract gas purchases on behalf of participating Member States.
- The Commission is also considering legislative measures to require **diversification of gas supply over time** by Member States. The Platform will also enable joint purchasing of renewable hydrogen.
- The package also included the adoption of the EU External Energy Strategy to facilitate **energy diversification and building long-term partnerships with suppliers, including cooperation on hydrogen or other green technologies**, including major hydrogen corridors in the North Sea and the Mediterranean.

ACCELERATING THE ROLLOUT OF RENEWABLES

The Commission proposed to increase the headline 2030 target for renewables from 40% to 45% under the Fit for 55 package, creating the framework for other initiatives, including:

- A dedicated **EU Solar Strategy** to double solar photovoltaic capacity by 2025 and install 600GW by 2030.
- A **Solar Rooftop Initiative** with a phased-in legal obligation to install solar panels on new public and commercial buildings and new residential buildings.
- Doubling of the rate of deployment of heat pumps, and measures to integrate geothermal and solar thermal energy in modernised district and communal heating systems.
- A Commission Recommendation to tackle slow and complex permitting for major renewable projects, and a targeted amendment to the Renewable Energy Directive to recognise renewable energy as an overriding public interest. Dedicated 'go-to' areas for renewables should be put in place by Member States with shortened and simplified permitting processes in areas with lower environmental risks. To help quickly identify such 'go-to' areas, the Commission is making **available datasets on environmentally sensitive areas as part of its digital mapping tool for geographic data related to energy, industry and infrastructure**.
- **Setting a target of 10 million tonnes of domestic renewable hydrogen production and 10 million tonnes of imports by 2030**, to replace natural gas, coal and oil in hard-to-decarbonise industries and transport sectors. To accelerate the hydrogen market increased sub-targets for specific sectors would need to be agreed by the co-legislators. The Commission is also publishing two Delegated Acts on the definition and production of renewable hydrogen to ensure that production leads to net decarbonisation. To accelerate hydrogen projects, additional funding of EUR 200 mn is set aside for research, and the Commission commits to complete the assessment of the first Important Projects of Common European Interest by the summer.
- A Biomethane Action Plan sets out tools including a **new biomethane industrial partnership and financial incentives to increase production** to 35 bcm by 2030, including through the Common Agricultural Policy.

REDUCING FOSSIL FUEL CONSUMPTION IN INDUSTRY AND TRANSPORT

- The Commission estimates that energy savings, efficiency, fuel substitution, electrification, and an enhanced uptake of renewable hydrogen, biogas and biomethane by industry could save up to 35 bcm of natural gas by 2030 on top of what is foreseen under the Fit for 55 proposals.
- The Commission will roll out **carbon contracts for difference to support the uptake of green hydrogen by industry and specific financing for REPowerEU under the Innovation Fund, using emission trading revenues to further support the switch away from Russian fossil fuel dependencies**.
- The Commission is also giving guidance on renewable energy and power purchase agreements and will provide a technical advisory facility with the European Investment Bank.
- To maintain and regain **technological and industrial leadership in areas such as solar and hydrogen**, and to support the workforce, the Commission proposes to establish an **EU Solar Industry Alliance** and a large-scale skills partnership. The Commission will also intensify work on the supply of critical raw materials and prepare a legislative proposal.
- To enhance energy savings and efficiencies in the transport sector and accelerate the transition towards zero-emission vehicles, the Commission will present a **Greening of Freight Package**, aiming to significantly increase energy efficiency in the sector, and consider a legislative initiative to increase the share of zero emission vehicles in public and corporate car fleets above a certain size.

- The EU **Save Energy Communication** also includes many recommendations **to cities, regions and national authorities** that can effectively contribute to the substitution of fossil fuels in the transport sector.

SMART INVESTMENT

- The Commission estimates that **delivering the REPowerEU** objectives requires an **additional investment of EUR 210 bn between now and 2027**. It expects that these investments are met by the **private and public sector, and at the national, cross-border and EU level**.
- To support REPowerEU, EUR 225 bn is already available in **loans under the RRF**. In addition, the Commission proposed to increase the RRF financial envelope with **EUR 20 bn in grants from the sale of EU Emission Trading System allowances** currently held in the Market Stability Reserve, to be auctioned in a way that does not disrupt the market.
- Under the current MFF, cohesion policy will already support decarbonisation and green transition projects with up to EUR 100 bn by investing in renewable energy, hydrogen and infrastructure. An additional EUR 26.9 bn from cohesion funds could be made available in voluntary transfers to the RRF. A further EUR 7.5 bn from the Common Agricultural Policy is also made available through voluntary transfers to the RRF. The Commission will double the funding available for the 2022 Large Scale Call of the Innovation Fund this autumn to around EUR 3 bn.

POLITICAL CONTEXT AND FURTHER PLANS:

- Countries like Italy and Spain (among others) are calling for **joint action at the EU level to implement strategic stocks and joint procurement of natural gas** while others, such as Hungary and Czechia, want to **rethink the Emissions Trading Scheme mechanism** and France is vocal about **reforming the pricing mechanism of the European energy market**.

(ii) Measures by national governments

Key measures by largest economies:

Germany:

- Electricity prices for German households are the highest in the European Union. Reuters indicates that some 4.2 mn German households will see their electricity bills rise by an average 63.7% in 2022 while 3.6 mn face gas bills 62.3% higher than in 2021 as suppliers pass on record wholesale costs.
- In April 2022, the Bundestag passed a law to **eliminate the Erneuerbare-Energien-Gesetz (EEG) surcharge** – a levy on the price of electricity, from July 2022. The measure will be financed by the federal budget and higher CO_2 pricing. The government claims that a typical family of four will benefit from that at around EUR 300 per year compared to 2021.
- The state has also offered a **EUR 130 mn package of one-time grants to low-income households**, which will be paid over the summer when households receive their bills from energy suppliers.
- A first relief package was passed on 24 February, which included an **increase in commuter allowance, a EUR 135 lump-sum payment for students and vulnerable citizens, tax reductions on income tax, increased payments for poor children (extra EUR 20/month per child), and a EUR 100 subsidy to unemployed people**.
- On 24 March, Germany's ruling coalition agreed on additional measures worth about EUR 15 bn, including a **temporary reduction in fuel prices** for three months through a tax cut (by 30 cents for gasoline and 14 cents for diesel). Other measures encompass a one-time payment of EUR 300, a EUR 100 cheque to boost child support and a monthly reduction to EUR 9/month for public transport.
- Other measures encompass a new subsidy program to replace gas boilers with heat pumps, the increase of the energy efficiency standard for new buildings to KfW55 by 2023, the obligation that newly installed heating systems need 65% renewables by 2024, and an increase in biogas production. These new measures will complement the already agreed subsidies for low-income households, the increase in allowance for commuters and the EEG surcharge cut.
- Chancellor Scholz indicated that **the overall cost of these policies bring the total cost of shielding consumers from the rise in energy prices to around EUR 30 bn**.

France:

- One-off EUR 100 payment to anyone earning less than EUR 2,000 per month net – around 38 million people.
- Cap on the price of gas until the end of 2022.
- On 9 December 2021, the French government began discussions on changes to the formula used to compute tariffs of the country's main electricity supplier Électricité de France (EDF), reducing the market link in the formula. The new measure follows Prime Minister Jean Castex's promise to limit the increase in regulated tariffs to 4% for the whole of 2022. Regulated tariffs represent about 70% of the residential electricity retail market.
- Moreover, in December 2021 there were plans to increase the volume of electricity that EDF is obliged to sell to its competitors by 50%, however in March 2022 the increase was agreed at 20% (from 100 to 120 TWh). This compulsory sale, for the period from 1 April 2022 to 31 December 2022 at EUR 46.2/MWh, is part of the Arenh system (a regulated access to historic nuclear electricity), which ensures a preferential purchase price for alternative producers.
- EDF, forced to lower the cost of electricity by charging below the market rate (to contain the increase to 4%), warned its investors that it would take an estimated EUR 8.4 bn financial hit from French energy price cap.
- Reduction in electricity tax from February 2022 to January 2023, from EUR 22.50 per megawatt hour to EUR 1 for households and EUR 0.50 for businesses.
- **As of March 2022, the total value of government support measures according to Finance Minister Bruno Le Maire has been EUR 25-26 bn**.
- Between March and June, there has been an additional EUR 2 bn of support for transport in the form of grants for road hauliers and petrol discount for motorists and boats.

Italy:

- Variety of measures between September 2021-May 2022 of around EUR 21 bn, including eliminating general system electricity charges, lowering VAT on natural gas, increase in social bonus, and tax credits for energy-intensive companies, funded through increase in corporate taxes for energy companies.
- On 2 May PM Mario Draghi outlined a **new package of measures worth EUR 14 bn to help families and business but also to speed up the deployment of renewable energy and regassification plants**.
- The flag-measure of the package is a **EUR 200 one-off bonus for 28 million workers and pensioners** (with an income level lower than 35.000 euros).
- Then the decree includes a 0.8 percentage points **cut on the social security tax rate of civil** servants, a EUR 200 mn million fund for businesses trading with Russia, Ukraine and Belarus and tax credits for SMEs for investments in intangible assets (50%) and for training

(70% for small firms and 50% for medium ones).

- A EUR 600 mn million fund has also been designed to help big cities with the implementation of the Recovery and Resilience Facility objectives.
- The Superbonus (a 110% tax credit on energy efficiency improvements for buildings) and the social bonus for energy expenses (regarding families with an income lower than 12 thousand euros) have been extended until the end of September. The cut in excise duty on fuels has also been prolonged: the discount, worth 30 cents per litre on petrol and diesel, is expanded to methane cars, whose excise duty will get to zero and VAT will be reduced from 22% to 5%. This will last for all fuels until 8 July 2022.
- For companies, the **tax credit for the purchase of gas and electricity increases to 25%**. And hauliers will benefit from a 28% tax credit for the first quarter of 2022 for the expenditure incurred on the purchase of diesel. A 10% tax credit is also targeted at energy-intensive firms for natural gas purchased in the first quarter of 2022.
- Three billion euros will be used to adjust the prices of public procurement, as the raw materials used in construction are affected by high inflation.
- The draft decree allocates 3 billion for 2022, 2.5 billion for 2023 and 1.5 billion for every year from 2024 to 2026. The measures will mainly be funded by increasing the windfall taxation of energy firms from 10 to 25%.

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A sustainable Housing Market: the way forward for a new Ecosystem supporting the transition economy

By EMF-ECBC Secretariat

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

This turning point is already having a profound influence on the 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 has to be found in the political perimeter outlined by the "Next Generation EU" package, which is intended to build the foundations for a common European home and to give the keys to a future full of opportunities to the 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 they account for 40% of CO_2 emissions in Continental Europe.

The scale of the investment needed to improve the energy performance of more than 220 million homes in order to meet the EU's energy saving targets is immense and cannot be achieved by the public sector alone. The EU financial sector 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 upgraded every week.

The real breakthrough of a net-zero Europe will come through the large-scale use of green mortgages. Today, the mortgage market is equivalent to around 46% of the EU's GDP. Facilitating the transition to green mortgages is crucial to achieving a climate neutral economy, as highlighted by the Energy Efficient Mortgages Initiative (EEMI)[1] which seeks to introduce a greener, sustainability-focused system for purchasing, renovating and living in homes. There is therefore a need for in-depth energy upgrading.

In this respect, it is important to ask how much it costs each owner, whether individuals or families, to make the necessary jump in energy class: the answer is at least 25-30 thousand euros worth of investment. There are not many who can afford these sums without systemic help or stimulus. The problem is that if the necessary "green" improvements are not made, there will inevitably be a net and tangible loss in energy consumption.

Member States cannot fully assume this huge burden on public debt, which would mean shifting the cost to future generations, so we have to build a mechanism which brings together public and private stakeholders, working in coordination and leveraging each other's contributions and actions. The contribution of financial markets, if combined with public intervention and structured in the right way, can give life and impetus to a genuine Green Renaissance, capable of giving an economic boost not only to the mortgage, construction, and real estate industries but to the entire economy.

The positive repercussions would be felt not only from an environmental point of view, but also in terms of employment, research and development, certification, and the professional skills involved in this work.

At the heart of the Energy Efficient Mortgages Initiative (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, delivered by way of a 'one stop shop'.

With the overall objectives of optimising the end-to-end customer journey and experience, deploying market interventions and partnerships that support delivery and therefore maximising benefits for consumers, the EEMI is concretely building an open source platform at the centre of the 'ecosystem', which 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 EEMI is building a constellation of national platforms focussed on local characteristics and implementation needs but with a European footprint. The EEMI governance structure[2], combining the European-level EEM Label and Advisory Council with the EEMI national hubs, will provide the European coordination of national actions, including institutional interventions, which will support timely and cost optimised coordination between and amongst the public and private market sectors. The Energy Efficient Mortgages Initiative brings together all market stakeholders and provides them with the opportunity to share innovative solutions through its 'green platform', which promotes the

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

idea of the EU's New European Bauhaus.[3] Since November 2020, the Initiative has organised 13 successful EEMI Bauhaus events with the twofold aim of building a community and stimulating market development towards the green transition.[4] There is also another key aspect to this new green ecosystem narrative. The Home is a very special place, a social driver for economic growth and cultural integration where our lives are built and our future is dreamt. On average, people spend between one third to more than half of their lives in their homes. This makes it an ideal focal point for financial education for citizens as consumers by embedding a new culture with greener microeconomic decisions in support of a transition economy.

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 has to 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.

THE ENERGY EFFICIENT MORTGAGE LABEL (EEML)

The first building block of this new ecosystem lies in the Energy Efficient Mortgage Label (EEML)[5], launched in 2021, which is a quality toolbox for consumers, lenders and investors, aimed at identifying energy efficient mortgages in lending institutions' portfolios. Under the Label, banks commit to develop specific mortgage products to finance energy efficient homes or home energy renovation.

The EEM Label was created to deliver a quality market benchmark supporting recognition of and confidence in energy efficient mortgages. This was intended to be achieved by ensuring 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.

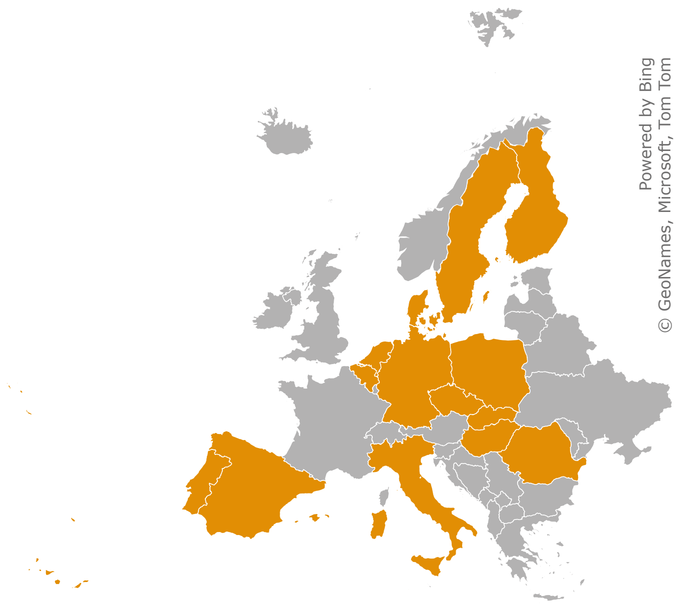
Before the official launch of the Label, the Energy Efficient Mortgages Initiative (EEMI) designed its core elements, including the IT platform and legal texts. The Label is built around the EEM Label Convention[6] and a process of self-certification, both of which are overseen by the label governance[7] structure consisting of: the Label Committee, the Label Secretariat and the Label Advisory Council.

The EEM Label has been developed using as a blue-print the Covered Bond Label[8], 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 nearly EUR 3 tn outstanding covered bond asset class. It is the intention that the EEM Label emulates this goal in the field of Energy Efficient Mortgages and in the wider field of financing of energy efficient renovation scaling up volumes and best practices on both retails activities and funding policies in the ESG sector.

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 2022, 38 pioneering lending institutions from 14 countries[9] have adopted the Energy Efficient Mortgage (EEM) Label, covering the four corners of the Old Continent, large and small lending institutions, traditional banks and FinTech platforms.

The EEML 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.

FIGURE 1 | GEOGRAPHICAL BREAKDOWN OF EEM LABEL LENDING INSTITUTIONS



Source: EEM Label Data

The EEM Label is granted either to a specific product offered by a lending institution or to the entirety of mortgages which are aligned with the EEM Label Convention and at the time of writing there are 53 labelled products registered. Considering the heterogeneity of alternative available loans to support the energy efficient improvement of dwellings, on the EEM Label website also a section for Complementary products to the labelled mortgage products category has been set up where financial institutions can upload general information on other products, such as personal loans, green accounts, renovation loans and loans to acquire energy savings solutions.

3 https://europa.eu/new-european-bauhaus/index_en
4 https://energyefficientmortgages.eu/bauhaus/
5 https://www.energy-efficient-mortgage-label.org/
6 https://www.energy-efficient-mortgage-label.org/about-us/convention
7 https://www.energy-efficient-mortgage-label.org/governance/structure
8 https://www.coveredbondlabel.com/
9 https://www.energy-efficient-mortgage-label.org/issuers/directory

KEY ELEMENTS OF THE EEM LABEL

In order to be part of the EEM Label interested parties need to *self-certify* that they are a lending institution with products aligned with the *EEM Label Convention* for which they need to disclose at least on a quarterly basis relevant information using the *Harmonised Disclosure Template.*[10]

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)*[11] *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.*

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

THE HARMONISED DISCLOSURE TEMPLATE

With a growing focus on sustainable finance – from regulators, market participants and investors alike – transparency and disclosure are becoming a crucial driver in harmonising best practices and in mitigating green-washing risk in the capital markets space securing investors' confidence and financial stability in the ESG space. 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 chain across the mortgage value chain for more consistent and standardised data collection and management, as well as for better linking loan information, property and energy efficiency characteristics in a single common template. Standardisation will facilitate investors' due diligence, facilitate regulatory reporting requirements in this area and enhance overall transparency in the EEM and (covered) bond markets. In order 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 in certain sections to introduce nation-specific breakdowns managed by national coordinators.

The HDT is based on the Master Template delivered under the Energy Efficient Data Protocol & Portal (EeDaPP)[12] 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 in order to facilitate completion and due diligence by banks which have both an EEM Label and 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 subdivided also 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

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[13], EEM Label Committee members and interested representatives of the 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, 12 lending institutions have disclosed HDTs on 17 products that are available on the EEM Label website. Similar as for the Covered Bond Label, also for the EEM Label the HDTs are exclusively publicly uploaded on the lending institutions' websites whereas on the EEM Label website a reporting tool using the direct link to the HDT creates graphical representations of the data of the HDTs as shown in Figure 2.

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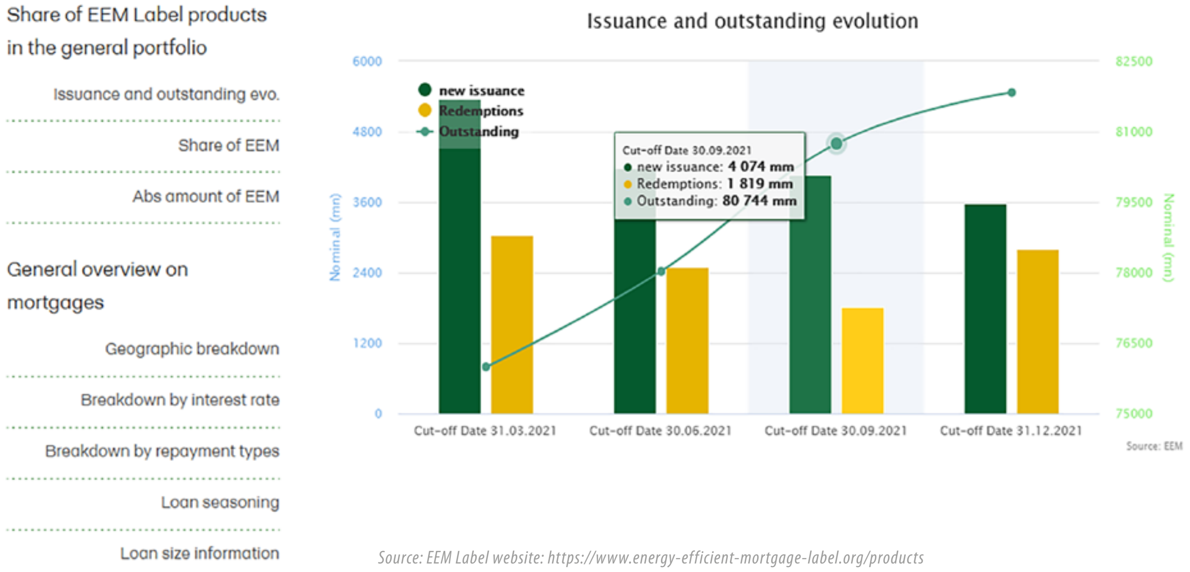
[10] https://www.energy-efficient-mortgage-label.org/hdt

[11] 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.

[12] **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.

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

FIGURE 2 | HDT DATA PRESENTATION ON THE EEML WEBSITE



Source: EEM Label website: https://www.energy-efficient-mortgage-label.org/products

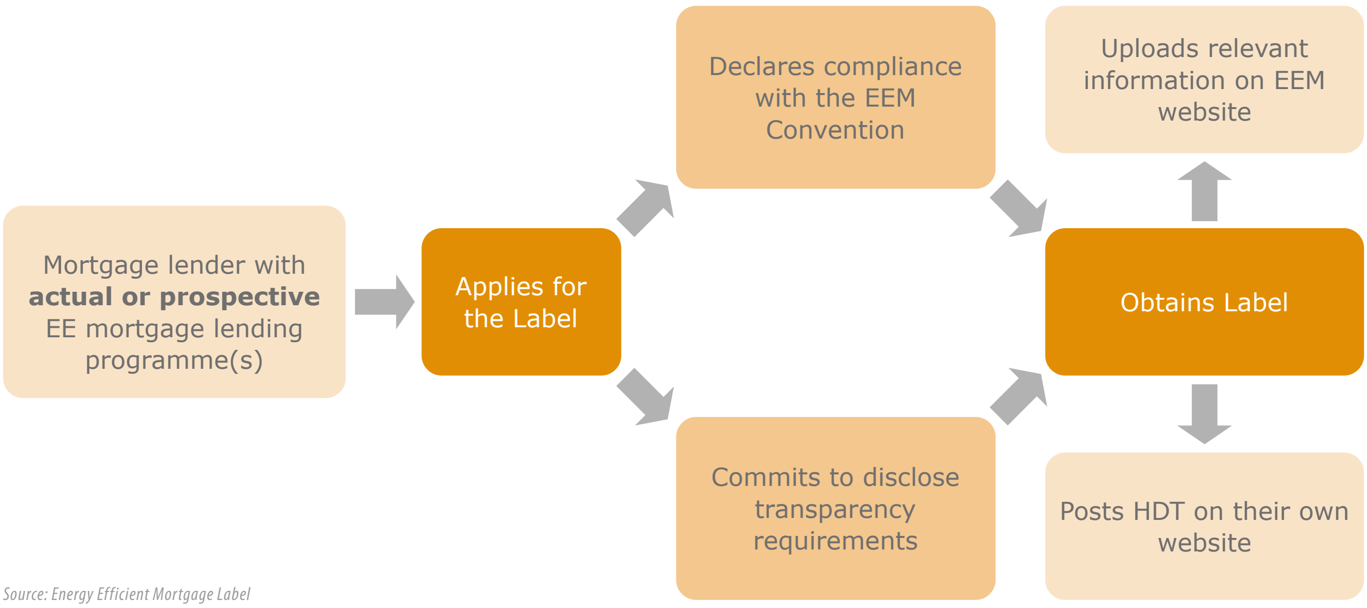
For the time being complementary products are not required to present an HDT, but the Label Committee is already planning to develop adapted HDTs and/or extra tabs in the existing HDT in order to accommodate new and diversified data requirements.

SELF-CERTIFICATION

Again, drawing on the experience of the Covered Bond Label, the EEM Label 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 highlights and testifies a real ESG engagement and strategy for labelled lenders. This process of self-certification in the Covered Bond Label has proven to work very efficiently as a result of subsequent scrutiny by other market participants, including investors and rating agencies, of the publicly disclosed HTT, representing a type 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 mitigate any risk of 'green-washing'.

FIGURE 3 | EEM LABEL SELF – CERTIFICATION PROCESS



Source: Energy Efficient Mortgage Label

REGULATORY COMPLIANCE: EEM LABEL TAXONOMY TASK FORCE

EEML is intended to scale-up private market support for the NextGenerationEU vision, the EU Renovation Wave Strategy and the EU Green Deal, by acting as a catalyst for consumer demand and a driver of the qualitative upgrade of the energy profile of lending institutions' portfolios and of enhanced asset quality. Following on from the ECBC's Covered Bond Label, the EEML will allow for identification, exchange and implementation of market and legislative best practices at European and international levels, particularly in light of the adoption of the EU Taxonomy.

Against this background a specific Taxonomy Task Force has been set up which produced a first report in spring 2022 with the following recommendations to the Label Committee:

- The EEM Label's definition, as laid down in the EEM Label Convention, should remain as it is and allow its users to gradually develop their existing green loan & mortgage products towards EU Taxonomy alignment.
- Based on discussion within the EU Taxonomy TF it became clear that incorporation and full alignment with the EU Taxonomy is demanding on both the business, retail origination and IT perspective in the short term.
- In the HDT template it was agreed to include a "Taxonomy dimension" (optional input until 2024) in order to identify lending institutions which are gradually evolving and embracing the EU Taxonomy criteria in relation to their portfolios.
- The alignment with EU Taxonomy will make the EEM Label a powerful initiative and will underpin ongoing efforts to secure a dedicated regulatory treatment and where the EU Taxonomy's definition is not clear, the EEM Label initiative should take the lead by helping on identifying and developing market best practises.
- The products which already have a Label should be 'grandfathered' up until the moment of change, which means that they retain their Label status based on the previous iteration of the EEM label.

These discussion points have triggered a reflection in the Label Committee, which is discussing to include in the revised HDT a separate Taxonomy Tab in order to provide the possibility to lending institutions to report, where possible, initial quantitative evidence that the labelled mortgages are EU Taxonomy compliant.

CONTINUOUS MONITORING OF MARKET REALITY AND ESG DEVELOPMENTS: EEM LABEL AFTER A YEAR OF FUNCTIONING

After a year of functioning of the EEM Label, the EMF-ECBC surveyed both lending institutions and non-lenders through two separate but very similar surveys, with a focus on the appropriateness of its governance, scope, core elements and communication activities. The surveys aim to provide insights into the user experience and expectations which can guide improvements of the Label's functioning and support in the further development of standards for quality and transparency in relation to energy efficient mortgages.

From the responses received to the survey, it is apparent that the majority of actors are very satisfied with the EEM Label's functioning and performance to date, whether this be in relation to the impacts of the EEM Label from the retail, funding and macroprudential perspectives, where multiple benefits are highlighted, or in relation to the governance structure, the HDT or strategic alignment and communication activities, for example.

Importantly, the responses to the survey also provide important indications in terms of room for further improvement in light of new and ongoing challenges. These indications pertain to access to and availability of comprehensive energy efficiency data in order to facilitate completion of the HDT, the extension of the HDT to include the request to expand the scope beyond mortgage products to cover personal/consumer loans, and the potential for the EEM Label to provide strategic guidance to the market with regard to the EU policy landscape.

This feedback is extremely relevant and will be embedded in the discussions of the EEM Label Committee with a view to addressing the points raised. Positively, the infrastructure is already in place to manage these issues, for example, by way of the EEM Label Taxonomy Task Force and the EEM Label Disclosure Working Group which are seeking, respectively, to ensure alignment of the EEM Label with EU regulation and the EU Taxonomy in particular, and to ensure a timely revision of the HDT as appropriate. Regarding access to and availability of EPCs, the feedback received reconfirms the mandate given to the EEM Label Secretariat to seek policy changes at EU level which secure access of credit institutions to EPC data and registers. These efforts are ongoing and, in light of the feedback received, will continue, particularly in the context of the recast of the Energy Performance of Buildings Directive (EPBD).

CONSUMERS AT THE HEART OF THE EEMI ECOSYSTEM

The Initiative and the EEM Label were designed to raise consumer awareness and appetite for building's energy efficiency, which represents a core element of the market transition. Against this background, the EEMI identified the main drivers of consumer demand with a focus on the appeal, relevance and understandability of EEM across European markets.[14] This latest consumer research has generated key insights on the EEM market developments. These findings further support the need for a standardised approach in terms of information exchange between the different actors that constitute the EEM ecosystem, namely lending institutions, small and medium enterprises active in the refurbishment of the building stock and providing energy efficient solutions for mortgage holders.

In this context, the EEM Label has undertaken several actions to introduce a product feature grid[15] that telegraphically collects the key features of the labelled products in order to provide a clear overview of the various products of the EEM Label. The grid was created to reinforce the value of the EEM Label for consumers by providing easy access to all labelled products and guiding them towards the most efficient and cost-effective financial products. All these efforts intend to scale up the EEMI's work, demonstrating the end-to-end customer journey and the EEM life-cycle.

[14] https://energyefficientmortgages.eu/wp-content/uploads/2022/04/EeMMIP-2022-Complete-Report-Consumer-Insights-Green-Mortgage-Propositions-Feb-2022.pdf

[15] https://www.energy-efficient-mortgage-label.org/products/compare

FIGURE 4 | EEM LABEL PRODUCT FEATURE GRID

Table

Filter results : Lending institution ▾ Type of loan ▾ All countries ▾ | download excel sheet

Product Name	Product 1	Product 2	Product 3	Product 4
Lending Institution	Institution 1	Institution 2	Institution 3	Institution 4
Product Type	Residential Real Estate	Commercial Real Estate, Residential Real Estate	Commercial Real Estate, Residential Real Estate	Residential Real Estate
External Product Link				
Country				
Year start	2021	2015	2021	2021
Product Features				
Special loan conditions[1]		Yes ✓		Yes ✓
Access to ecosystem and service providers[2]				Yes ✓
Target market	• New building • Existing building • Building renovation • Construction	• Existing building • Building renovation • Construction • New building	• New building • Existing building • Building renovation • Apartment renovation	• New building • Existing building • Building renovation • Apartment renovation • Construction
EPC/Energy requirements[3]	• A • B • C • D		• A • B	
Key eligibility criteria	• Minimum 30% Energy performance improvement • A B C and D EPCs		• Minimum 30% Energy performance improvement • Buildings with EPC A and B • Buildings build after 2009	• Minimum 30% Energy performance improvement
Target client	• First Time Buyers • Construction Companies • Second time buyers		• Private homeowners • Multifamily houses	• First Time Buyers

Rows per page : 10 ▾ 1-7 of 7

Source: EEM Label website

CONCLUSION

The Energy Efficient Mortgages Initiative is leading the market towards a real cultural change in the Housing sector proposing coordinated and integrated solutions at global level for retail, funding, marketing a risk analysis strategy in the banking sector. This will accompany lenders in building common best practices and deliver new green products and solutions for consumers. This pivotal change will support ESG appetite in capital markets but more importantly will be mitigating green-washing facilitating investors' due diligence and reinforcing the overall financial stability perspective in the ESG space.

This Initiative aimed at scaling up volumes, solutions, and opportunities for the entire value chain with the end goal of bringing in the hands of the consumers a real affordable microeconomic advantage when renovating their homes.

The real decision-makers in the transition economy are the families who should make informed decisions for the future of their children, looking at the world with a new perspective. This revolutionary behaviour should be supported by the appropriate toolbox of incentives, regulation, subsidies. The banking sector is ready to deliver the magnifying glasses to look for a new path for their consumer journey by supplying new green products and renovation opportunities.

With the EEM Ecosystem, the mortgage and covered bonds industries are laying the foundations for a win-win market paradigm that secures both economic growth and financial stability. It gives rise to a Green Renaissance rooted in a new perspective of sustainability, digitalisation and social inclusion, to fund the hope for a better future.

Housing and Mortgage Markets in 2021

By José Ignacio Díaz, Leonardo Mancini and Daniele Westig, European Mortgage Federation - European Covered Bond Council

DISCLAIMER

The following review focuses on European housing and mortgage markets up to the end of 2021. The different sets of data included in this report register, for the most part, the economic impact of the COVID-19 public health crisis, still ongoing, and other relevant macroeconomic disruptions, namely a shifting consumer prices landscape. Furthermore, it should be noted that the effects relating to the conflict in Ukraine, which began in February 2022, or other recent economic developments, such as the mounting uncertainties around trade and energy supply in Europe, will not be covered in detail in this article, as the scope is limited to the year 2021. Readers may nevertheless find further information on the current state of European housing and mortgage markets, as well as forward-looking highlights, in the individual country chapters. Moreover, readers may also refer to the EMF Quarterly Review for a more up to date look at the European mortgage and housing markets.

MACROECONOMIC OVERVIEW

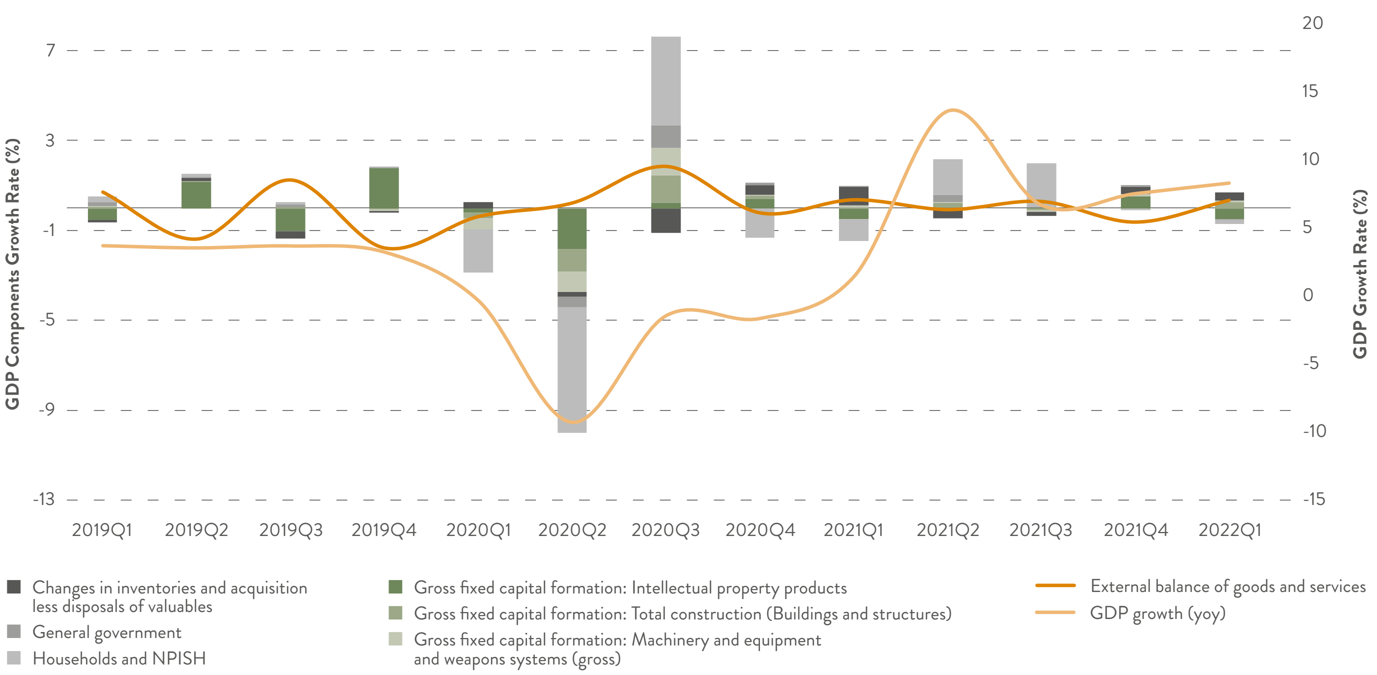
By end 2021, the economic situation in Europe had improved significantly compared to the previous year. GDP, investment and private consumption were up, while the business outlook in the post-pandemic period seems to be on the upturn. However, this scenario, marked by the positive turn in most macroeconomic indicators, was more complex than the broader view might suggest. The apparent restart gave way to new and uncertain changes, particularly a rapid increase of consumer prices, rising interest rate cycle and noticeable global shortages in supply of intermediate and final goods. The mortgage in Europe, in this context, proved to be resilient and, building on the trend of previous years, including 2020, achieved, on aggregate, record-breaking credit lending levels. Notwithstanding the positive momentum of mortgage lending, new challenges await, ranging from the need to adapt the building stock to environmental goals to adjusting lending to the new interest rate environment and inflation.

Following a year marked by economic turmoil, in which business and consumer activity was gravely disrupted worldwide amid a global public health crisis, the overall macroeconomic scenario pointed to a strong recovery, in many countries eclipsing the previous year's decline. Considering the latest Eurostat figures, EU27 GDP grew by 7.9% in 2021, and 7.5% in the euro area (EA-19). Moreover, aggregate GDP in both the EU and the euro area surpassed the 2019 level.

Moving forward to 2021, as lockdown measures were lifted and overall business activity gradually yet steadily restarted, most European countries experienced a significant economic boost in the aftermath of the pandemic shock, ultimately rendering a much improved macroeconomic scenario.

A more detail examination of GDP growth sheds light on this. In Q1 2021, the EA economy expanded for the first time (on a y-o-y basis) after four consecutive quarters of contraction. This was mainly supported by the stocks of raw materials, semi-finished goods and finished goods (i.e., changes in inventories

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

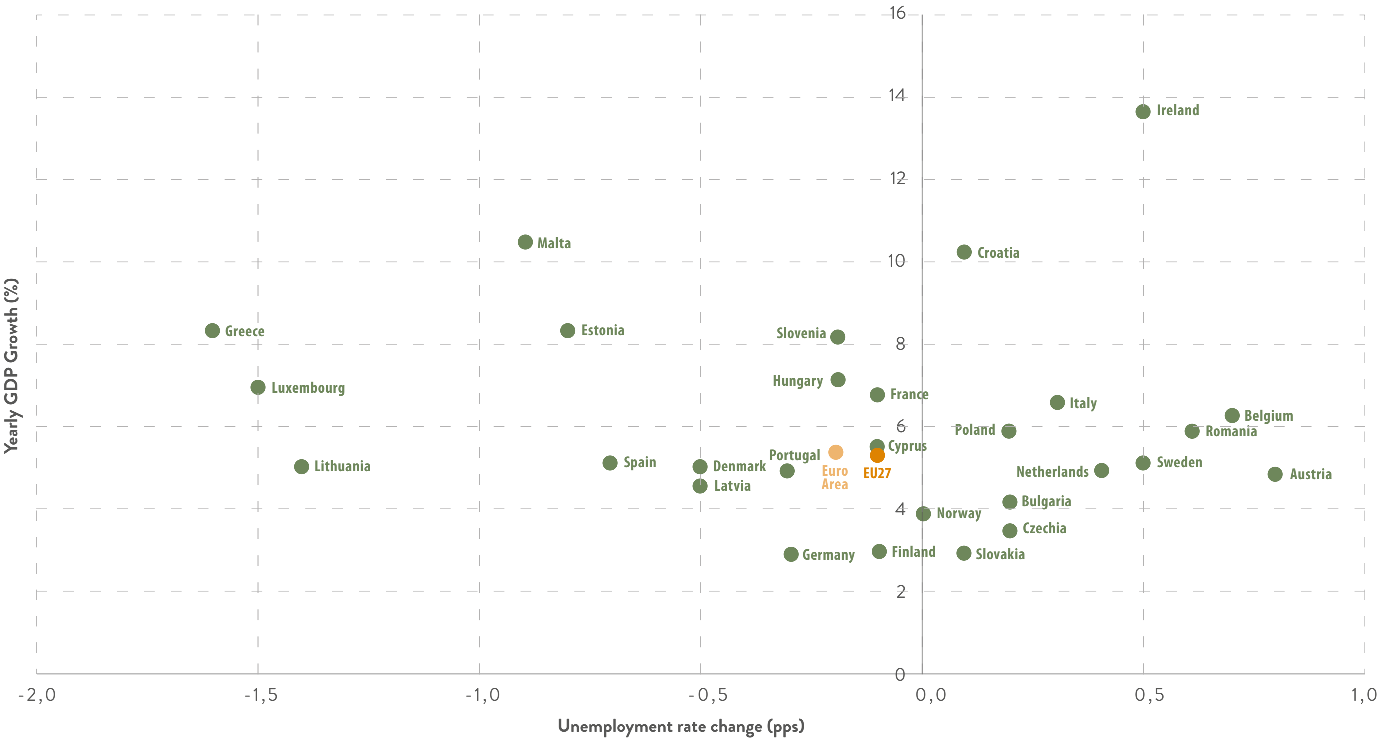


Source: Statistics Data Warehouse – European Central Bank and acquisition less disposals of valuables) and the external balance of goods and services. Household consumption and gross fixed capital formation had either a negative or flat impact on GDP growth. In Q2 growth accelerated at a yearly rate of 15.3%, following a rapid expansion of private household consumption and, to a lesser extent, government expenditure. In the second half of the year there was further improvement in overall production in the euro area, with GDP growing by 6.9% in Q3, during which private consumption proved to be instrumental in keeping the growth momentum (contributing more than 2 pps). The external net balance also contributed to overall growth. As Q4 2021 came to an end, EA GDP accelerated once again, fast approaching 8% suggesting a more positive outlook for the upcoming year. Recent figures for the early stages of 2022 point to yet another period of growth, extending the trend to five consecutive quarters.

These averages, however, cover a range of outcomes. Most European economies ended the year larger than they were at the end of 2019. However, in Spain, Italy, Greece, and Portugal GDP was still below its pre-crisis levels. The European post-pandemic rebound has been positive overall but heterogenous.

Similarly, unemployment levels have progressed at a difference pace across Europe. In general, in both the EU27 and euro zone unemployment fell in 2021, closing the year, respectively, at 7% and 7.7%. In both cases, however, the number of unemployed people remains higher than in 2019, suggesting that the widespread economic bounce-back (in terms of GDP) has not fully offset the impact of the pandemic on national labour markets. A majority of EU member states, 15, had decreasing unemployment (at varying rates), while in 12 countries it increased. There is no clear geographical pattern to highlight, as chart 2 shows. Perhaps the most telling cases of this are Belgium, Ireland, Italy or Poland, jurisdictions that reported growth of around or above 6%, but increased unemployment.

CHART 2 | UNEMPLOYMENT CHANGE AND GDP GROWTH IN 2021, PERCENT



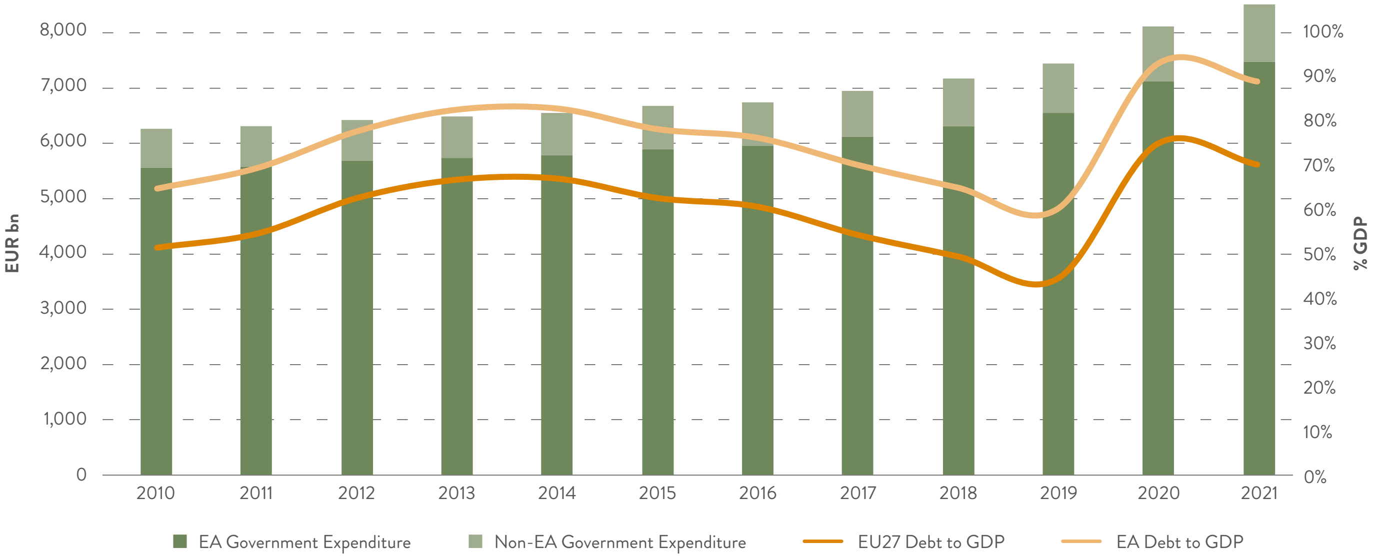
Source: Eurostat

Government expenditure in the EU27 was EUR 7.4 tn in 2021, up 5% on the year. In the euro area, the growth was 5.1%, to EUR 6.4 tn. Spending by most European governments increased in 2021 (as Chart 3 shows). Growth moderated in 2021 compared with 2020, when, it increased, on average (EU 27), by almost 9%, with many jurisdictions reporting double-digit growth rates to counteract the economic fallout of the pandemic. Recently governments have cut back on spending, creating considerable differences between 2020's growth rate and that of 2021, according to 2021 Eurostat data. On average, public spending expansion slowed by between 4 and 5 pps in most EU countries. However, the differences are significantly high in jurisdictions such as Romania (-9 pps growth difference in 2021), Ireland (-14.7 pps), Poland (13.8 pps) or Lithuania (-24.4 pps), where expenditure, though still increasing has been restrained. This correction in spending was expected, given the extraordinary nature of 2020's emergency support schemes, ranging from fiscal relief plans to loan moratoria, which were put forward by most European jurisdictions. Thus, as the rate of vaccinations increased and economic restrictions were lifted, government expenditure began to moderate, leading to lower growth rates. Although by no means a full tightening, as 2021 still saw the effects of the pandemic and therefore the need to maintain certain programmes.

Changes in government expenditure can also be seen relative to GDP. Considering the EU27, government debt relative to GDP fell by -1.9 pps, to 88% by end 2021, although still above 2019's 77.5%. From a country standpoint, the ratio decreased in most EU countries, with the exception of Germany and some Central and Eastern European jurisdictions, as chart 4 shows. Furthermore, 13 countries have debt levels below 60% of GDP threshold[1] in the aftermath of the pandemic, mainly in the Central and Eastern European area, as well as Denmark and Sweden. Other jurisdictions had debt ratios clearly above 100% GDP, despite relative improvements. These are mainly in Southern Europe, such as Greece, Spain, Italy, Cyprus and Portugal, but also France and Belgium.

[1] This refers to the 60% limit of the European Union's Stability and Growth Pact, which was temporarily suspended since the onset of the pandemic. The suspension is expected to last until 2023.

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



Source: Eurostat

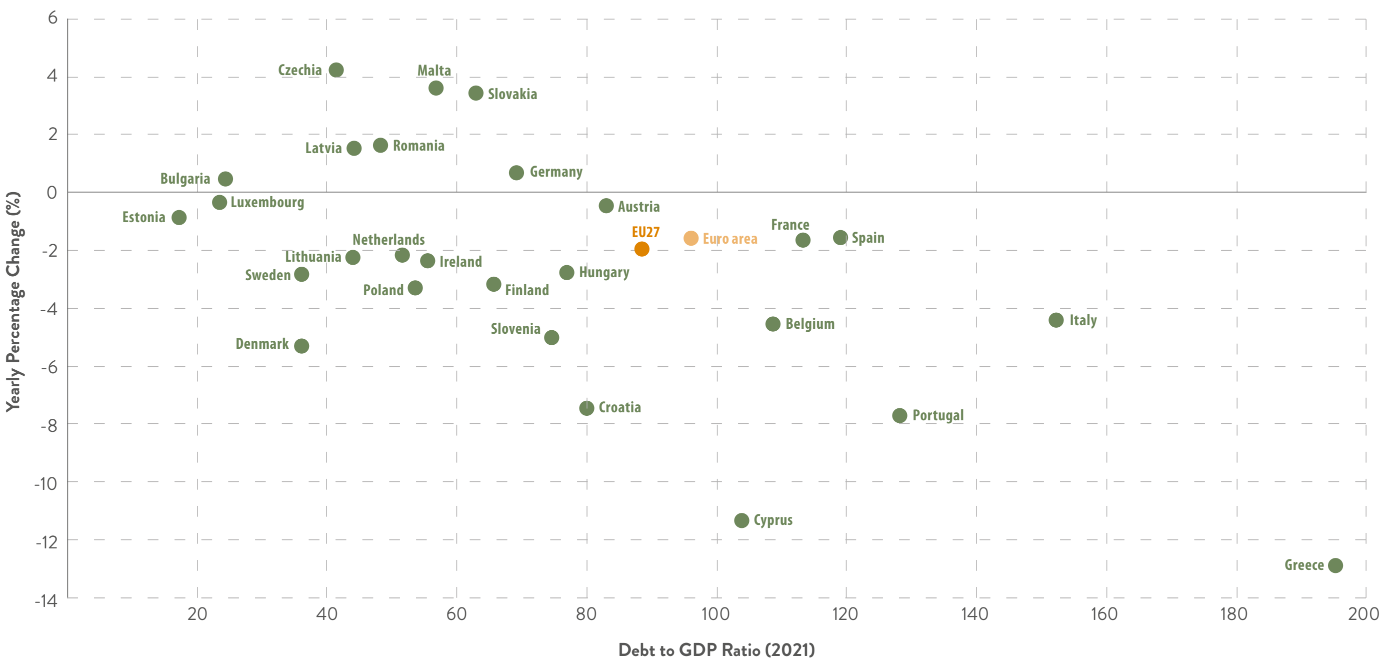
Inflation, the final indicator considered in this section, was perhaps the most relevant towards the end of 2021. After an average rate of 0.6% in 2020 (Harmonised index of consumer prices or HCIP measure), the lowest since 2015, inflation quickly picked up in Europe. By the end of 2021 it had increased to 2.9%, the sharpest single-year inflation hike since 2011. In Q1 2021, inflation had increased, on average, to 0.9% in the euro area, after two consecutive periods of below deflation in excess of 1%. By the end of Q2, consumer prices had increased to 1.6%, almost double the previous quarter. Q3 saw a further acceleration, as prices grew to 1.9%, ultimately reaching 2.3% in the final quarter of the year, the fastest rate since Q4 2012.

Inflation also varied across Europe with Denmark, Italy, Portugal, Malta and Greece, all having price increases below 2% but much larger increases (above the EA average), in Spain, Germany, Belgium, Czechia, and others. Outside the euro area, Poland and Hungary reported the steepest consumer price increases in 2021, with rates above 5%.

Similarly in the UK but with consumer prices expanding rapidly since the beginning of the year. British consumer prices grew by 0.6% in Q1 2021, but surged by 2.1% the following quarter. By end Q4 2021, the increase was almost 5%, the highest in more than a decade. The average inflation rate over the year in the UK was 2.6%.

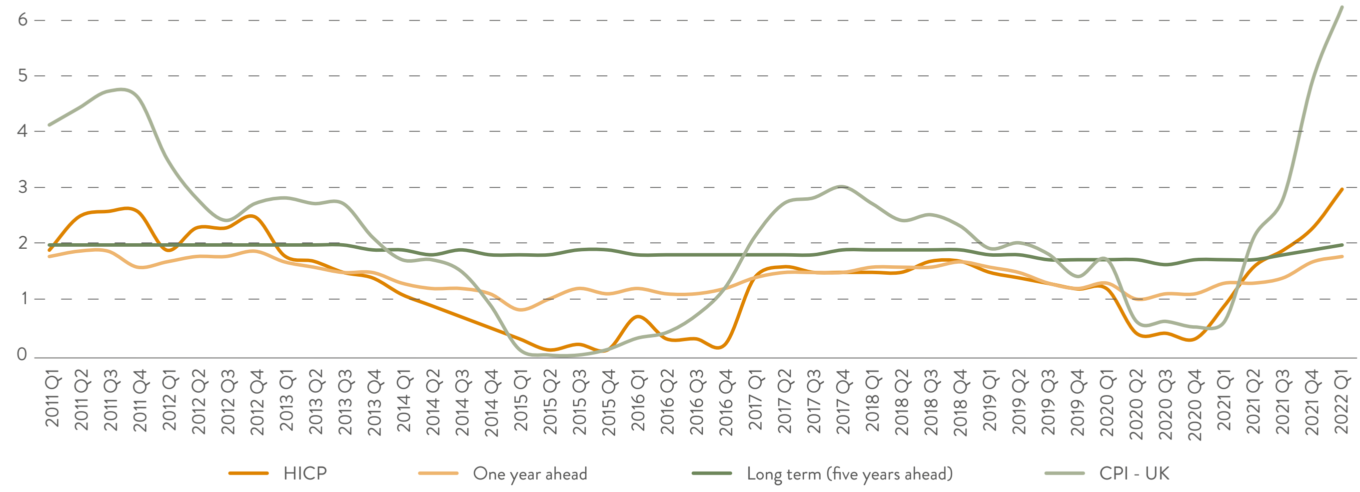
Inflation is expected to remain a near-term challenge in 2022. In the euro area, HICP values increased by 3% in the first quarter of the year, building on the inflationary momentum from previous quarters, while in the UK, prices accelerated by 6.2%.

CHART 4 | PUBLIC DEBT TO GDP RATIO



Source: Eurostat

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



Source: European Central Bank and Bank of England

HOUSING MARKET

CLIMATE, AN AGING BUILDING STOCK AND SHIFTING DEMOGRAPHICS – THREE HOUSING CHALLENGES FOR THE FUTURE

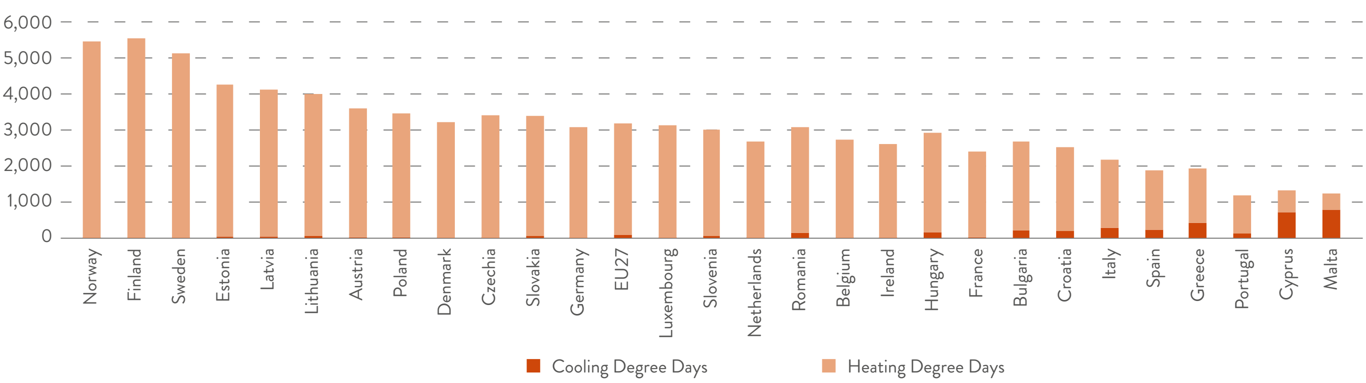
In 2021, the housing market faces three long-term challenges, namely the adaptation of residential dwellings to new environmental requirements, the age of the building stock and the profound demographic changes taking place in the continent.

As explained in previous editions of Hypostat, the issue of the energy efficiency of buildings is at the very core of the European green transition. The mortgage and real estate markets must adapt their businesses to the new European environmental and climate standards, as per the new Taxonomy regulation and other relevant sustainable legislation. Buildings account for approximately 40% on energy consumption and 36% on CO2 emissions in the EU, according to the European Commission[2]. Furthermore, almost 35% of European buildings are over 50 years old, while 75% of the total building stock is not deemed as energy efficient. Taking into consideration that extreme climate events, such as floods, storms or heatwaves, are occurring more often as well as the potential damage infrastructures could suffer, it is imperative that the mortgage industry acts as a catalyst of both energy efficient lending and building renovations.

The energy demand of houses varies significantly across Europe, mainly due to geographical and climate-related features. Heating and air conditioning needs can be collectively measure via an indicator known as the 'Cooling and Heating Degree Days'[3].

The options to heat a dwelling range from using wood or biomass to gas, coal, electricity, nuclear etc. Cooling, however, electricity-powered air conditioning. Chart 6 shows that heating needs represent over 96% of the total of the index. It is widespread across the continent, although there are national differences to considers, which can potentially affect both renovations and constructions of residential dwellings. Furthermore, cooling needs are, to date, mainly concentrated in the Southern end of the continent. In perspective, however, this apparently regional challenge could likely affect more areas of the continent due to climate change.

CHART 6 | HEATING AND COOLING DEGREE DAYS IN 2021, °C TEMPERATURE SUMS



2 Source: European Commission, In focus: Energy efficiency in buildings, February 2020. For further reading, please see the following link: https://ec.europa.eu/info/news/focus-energy-efficiency-buildings-2020-lut-17_en#:~:text=Collectively%2C%20buildings%20in%20the%20EU,%2C%20usage%2C%20renovation%20and%20demolition

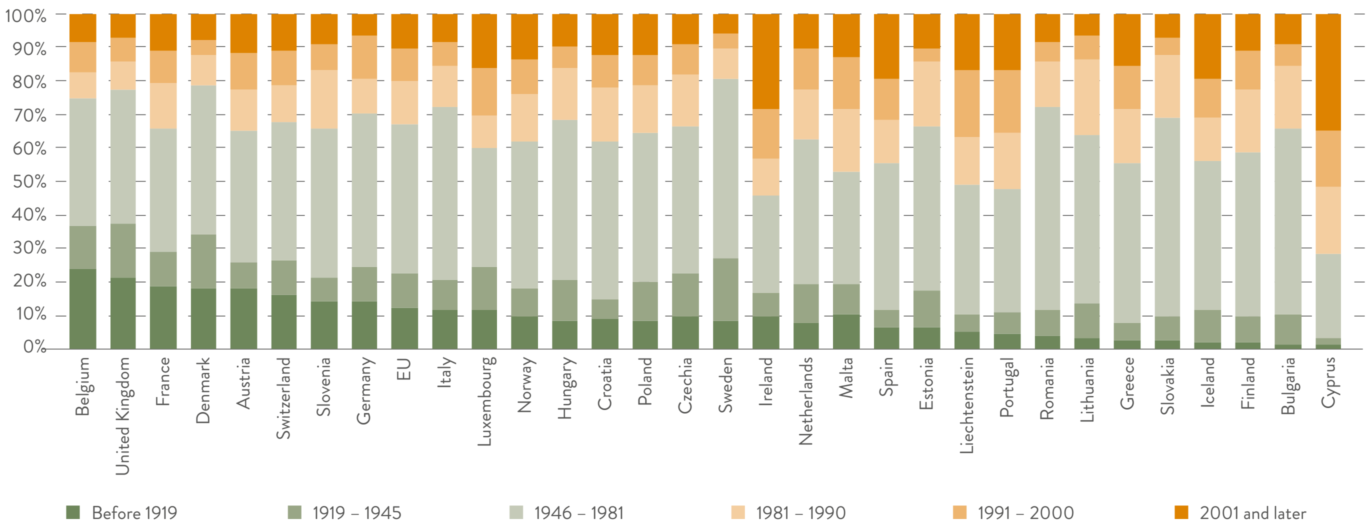
3 According to Eurostat, the heating degree day (HDD) index is a weather-based technical index designed to describe the need for the heating energy requirements of buildings. Cooling degree day (CDD) index is a weather-based technical index designed to describe the need for the cooling (air-conditioning) requirements of buildings. For more information about the methodology and for further statistics please find them on this link: https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Heating_and_cooling_degree_days_-_statistics

The number of heating/cooling degree days has changed over the years. Global warming influenced both the need for heating and cooling. Between 1979 and 2021, heating degree days decreased by 6% whereas cooling ones increased by 47%. Portugal, Malta and the Netherlands experienced the most significant decreases in heating days with 16%, 12.2% and 11.8%, respectively, while for cooling degree days, the majority of Member States experienced an increase of at least 50%, with Norway, Ireland, Denmark, Luxembourg, the Netherlands, Finland and Estonia recording increases of around 100%. It is easy to understand how the impact of climate change on dwellings depends on the geographical and weather conditions of a given locations, which requires that dwellings meet certain technical features to mitigate it.

This shows the importance of initiatives such as sustainable investments or energy efficient housing.

The challenges are clear given the age of European houses. The bulk of houses in most countries were built in the 1946-1981 period, according to the 2013 EU census (the most recent for the whole union). The age structure varies across Europe. In Belgium, the United Kingdom, France and Denmark, between 30 and 40% of total houses were built before 1945. Conversely, Ireland, Portugal, Greece and Spain, saw a rapid expansion of the housing stock in the period leading up to the GFC, and have more houses from the latter years of the 20th century and the 2000s. The different shares can be seen in detail in the chart 7.

CHART 7 | HOUSE AGE STRUCTURE OF DWELLINGS IN THE EU, SHARE

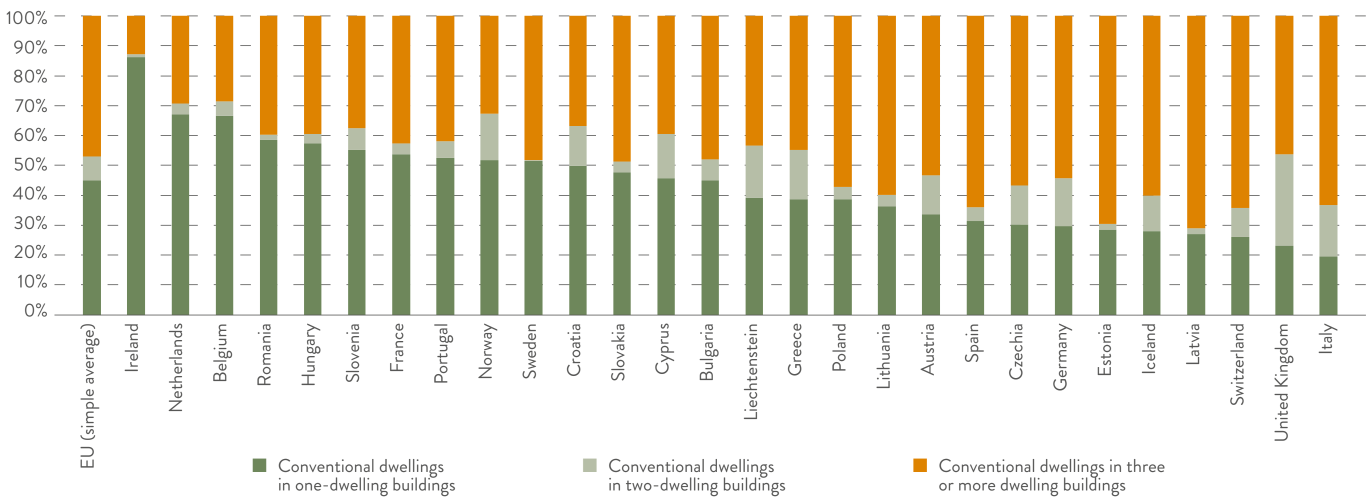


Source: European Union Housing Census Hub

Energy efficiency and sustainability goals related to housing are complex, countries with typically older buildings have different needs from those with on average newer buildings.

The type of dwelling in each country complicates the picture. Overall most residential buildings are one-dwelling buildings (43.5%) or three or more dwellings (47.6%), according to the same survey. In the Netherlands, Belgium, Hungary, France, Portugal and Sweden, buildings are mainly single family dwellings. Ireland in contrast has the most detached houses (86.1% of the total). The remaining countries have either most buildings with three or more dwellings residential buildings. Several Eastern European countries, Germany, Austria, Spain and Italy, all have a majority in this category.

CHART 8 | DWELLING TYPE STRUCTURE PER COUNTRY, SHARE



Source: European Union Housing Census Hub

As the features of the building stock varies country by country, the approach to improving energy efficiency must reflect the particularities of each jurisdiction. For example, countries like France or Belgium, where residential building are more commonly single detached units, often constructed at the beginning of the XX century, will have different environmental needs and technical constraints from countries like Germany or Spain, where a significant part of the housing stock is composed of multifamily units, dating back to the post-1940 period or the post 1990s.

In addition to the diverse nature of the building stock, Europe has an heterogenous demographic make-up. According to the latest Eurostat figures, almost 21% of Europeans are 65 year or older while less than one third was under the age of 30 (Eurostat, 2019). The share of people over 65 is expected to grow. due to increasing longevity and lower birth rates, other demographic changes take shape. The proportion of households with children is steadily decreasing, in 2011, from 50.3% to 49.7% in 2019. Household of two adults remains the predominant type of childless European household, a relatively stable 25%. But the number of single person households is increasing consistently, from 13.6% in 2011 to 15.2% in 2019.

There are, certainly, national variations but in Europe as a whole there is a growth in the number of individual person households with will significant implications for the mortgage and real estate sectors.

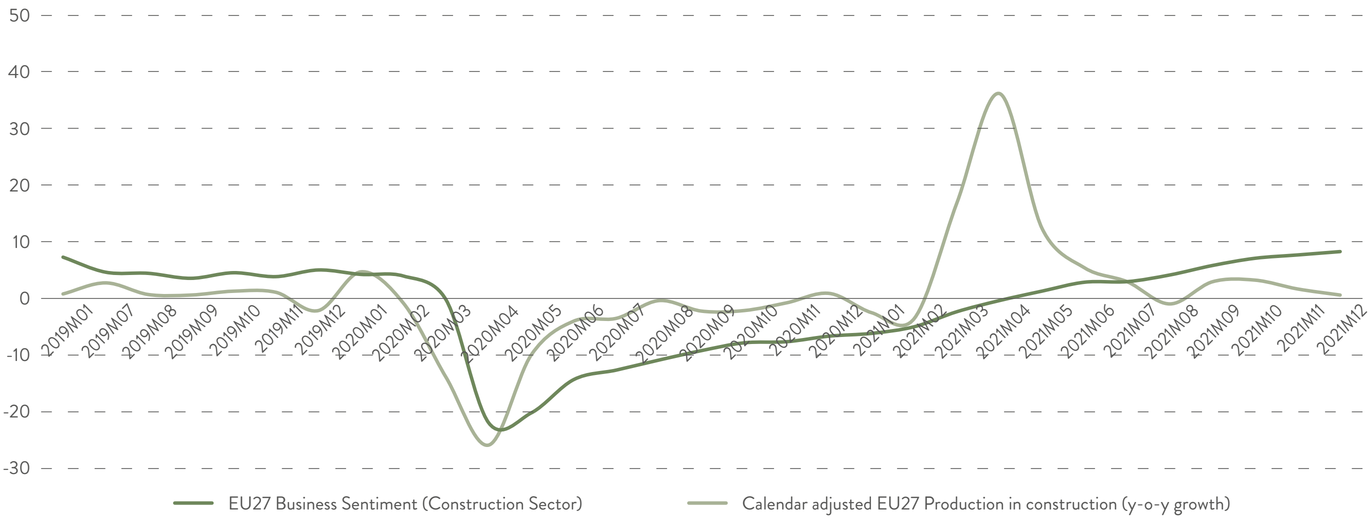
HOUSING SUPPLY DEVELOPMENTS

European housing supply recovered in 2021, in line with the general economy. Construction investment increased due to an improvement in sectoral sentiment and business prospects. European construction output increased in 2021, as did construction costs. There was also a significant increase in the number of building permits issued and transactions.

New investment in buildings, measured in terms of gross fixed capital formation (GFCF) in the dwellings sector, increased on aggregate level in Europe, according to Eurostat. After the 2020 contraction total dwelling investment grew by a significant 12.5% to EUR 812 bn (EU27), and by 12.3% in the euro area, amounting to EUR 725 tn. Greece, Italy, and Sweden had the highest yearly growth (29.4%, 28.4% and 20.2% respectively). Although investments increased in most countries it declined in Latvia (-14.3%), Bulgaria (-4.3%), and Spain (-3.5%).

The European construction sector business sentiment[4], as calculated by Eurostat's Business and Consumer Confidence Survey, shows that business expectations recovered during 2021 as shown in Chart 9.

CHART 9 | EU27 CONSTRUCTION BUSINESS SENTIMENT (MONTHLY NET BALANCE) AND EU27 PRODUCTION IN CONSTRUCTION (Y-O-Y CHANGE)



Source: Eurostat

Regarding EU27 production in construction, calendar adjusted monthly output levels, as published by Eurostat, show that building production started 2021 with a decrease of -2.5% in January 2021 from the end of December 2020, finished the year with an average (Q4 2021) growth of 2.0%., building production increased during the first four months of the year, peaking in April 2021, then broadly fell until year end. In 2021 Hungary had the highest growth in building production (146%), followed by Poland (115%) and Austria (101%). On the other hand, Belgium had the largest output drop (27%), followed by France (20%).

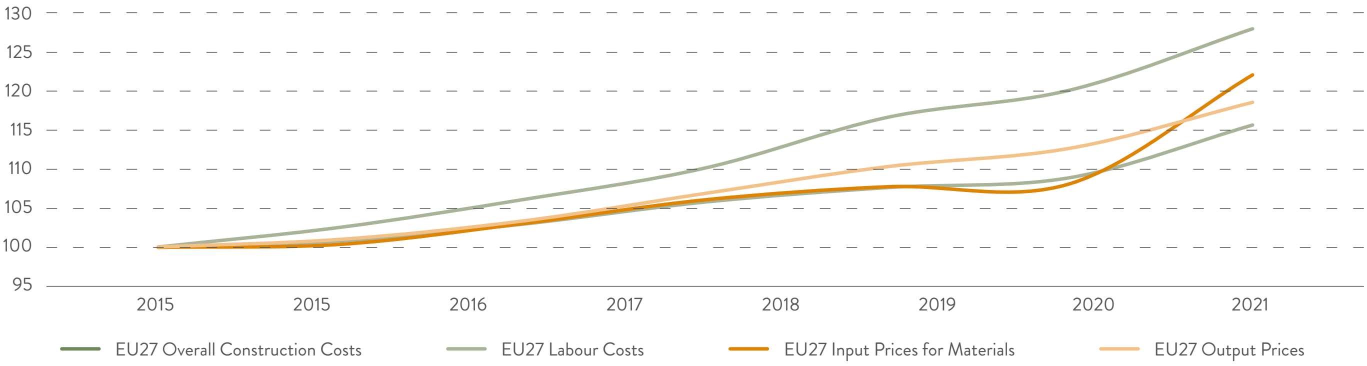
Given the underlying supply-side shortages, construction costs of residential buildings increased by 6.3% in 2021 (from 1.2% in the previous year), continuing the upward trend since the GFC, but 2021 was the highest single-year increase since the introduction of the Euro. The highest cost increases were in Malta (12.4%), Bulgaria (12.2%), Slovenia (10.7%) and most of all, for the second year in a row, Hungary (15.7%).

[4] 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 the construction section generally increased in most EU countries, in line with previous trends, and at a higher level than other components such as materials, as seen in chart 10. Even though Eurostat does yet not report all 2021 data for all 27 Member States, the average EU27 Labour Costs grew 5.9% in 2021, the highest since 2008. Labour costs have expanded consistently since before the GFC, as have materials and output prices, although the rates of growth moderated significantly in 2009, in the aftermath of the financial downturn, and more recently in 2020, amid the pandemic.

Significant labour cost increases occurred in Bulgaria (13.2%), Slovenia (7.2%), while Latvia and Greece experienced the lowest growth rates, respectively of 2.3% and 2.4%.

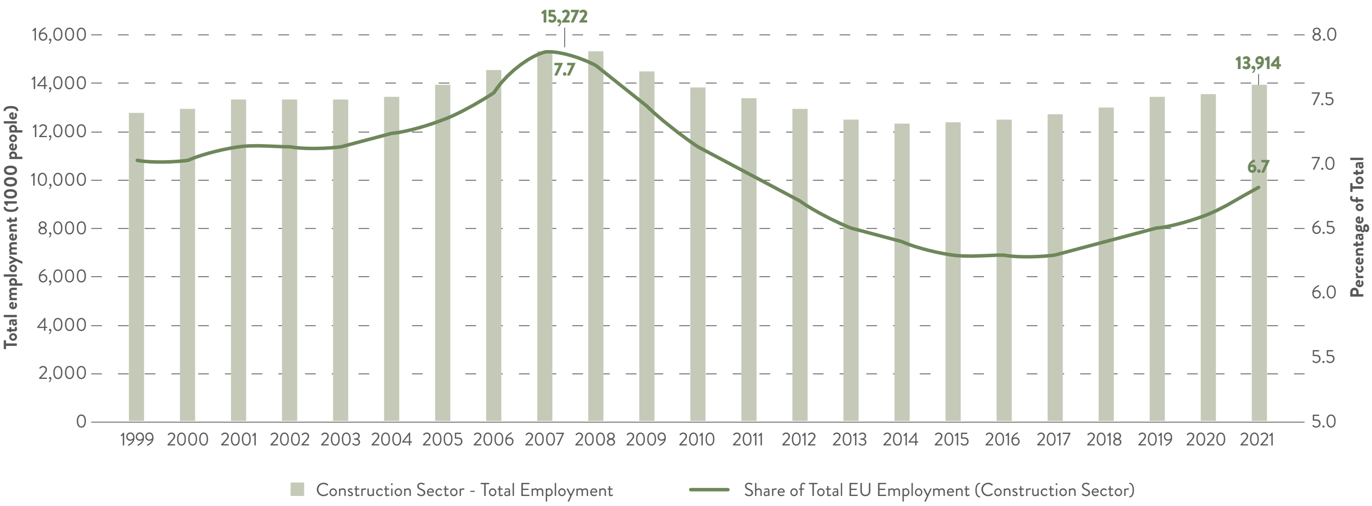
CHART 10 | EU 27 CONSTRUCTION COSTS INDICES (OVERALL, LABOUR COSTS, INPUT AND OUTPUT PRICES), INDEX 2015=100.



Source: Eurostat

The rise in construction labour costs took place as the number of workers in the construction sector remained unchanged. In 2021, EU27 construction sector employees were 6.7% (almost 14 mn workers) of the entire European work-force, as shown in chart 11, surpassing the level of 2012. It is noticeable how after 8 years of continuous contraction (2008-2015), from 2017 on, the share of employment in the construction sector is recovering, increasing gradually over the years even though it is still relatively far from the peak of 7.7% of total European employment reached in 2007.

CHART 11 | TOTAL NUMBER OF EMPLOYEES (CONSTRUCTION) & SHARE OF CONSTRUCTION EMPLOYEES OF EU27 TOTAL WORKFORCE



Source: Eurostat

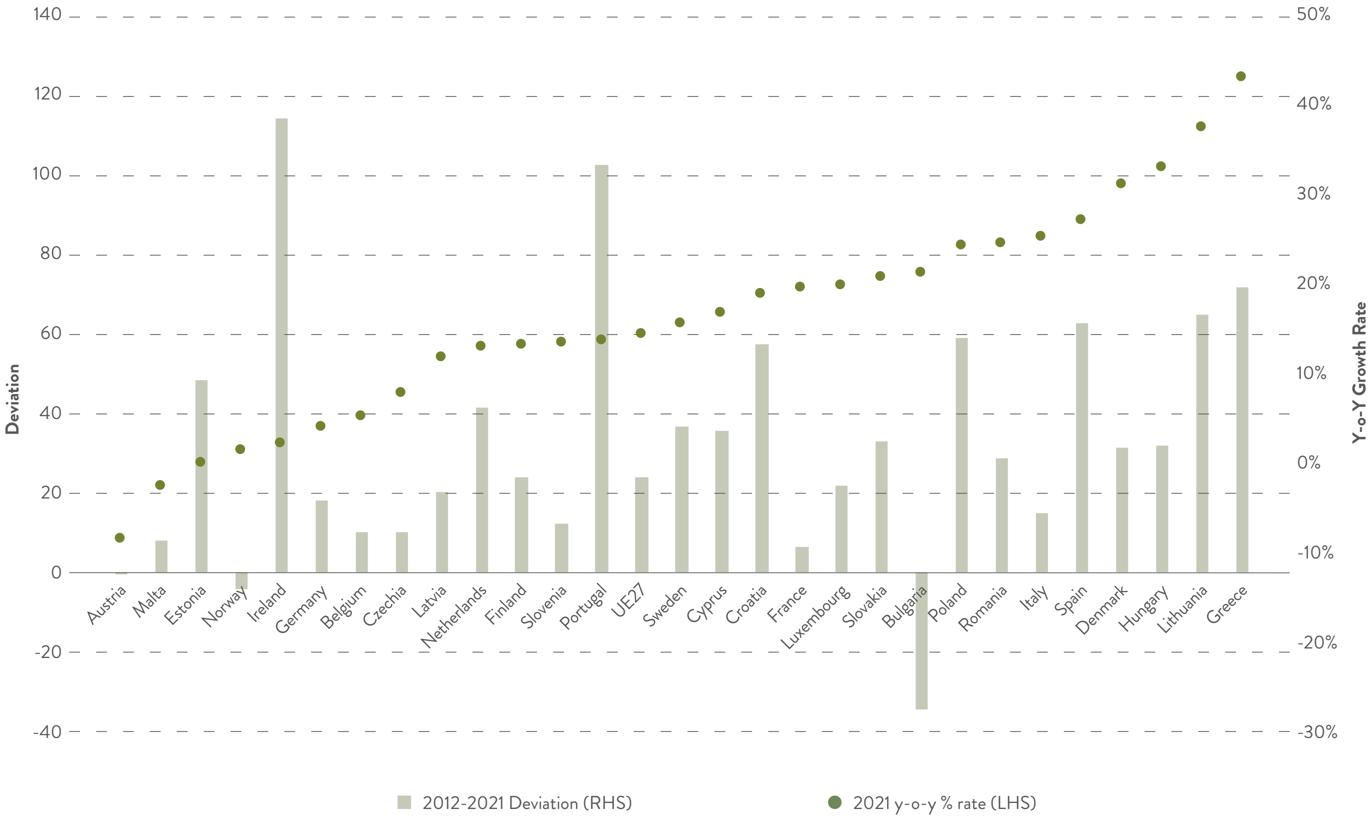
Overall, there was increased investment, output levels and construction costs, but with wide national variations.

The number of newly issued building permits in the Hypostat country sample increased by 11.2% in 2021 after a fall of 5% in 2020, for a total amount of more than 1.78 mn, still above the 2012-2021 average (more than 1.47 mn licenses). Over the course of this period, overall EU building permits increased by almost 40%.

The number of newly issued permits increased from 2020 in most jurisdictions, with the exceptions (Charts 12) of Estonia, Malta and Austria. A significant number of countries, in turn, experienced a growth rate of over 10%.

The countries where permits increased most were Greece (43%), Lithuania (37.3%), Hungary (32.7%) and Denmark (30.9%).

CHART 12 | BUILDING PERMITS EVOLUTION (2012-2021)



Source: European Mortgage Federation

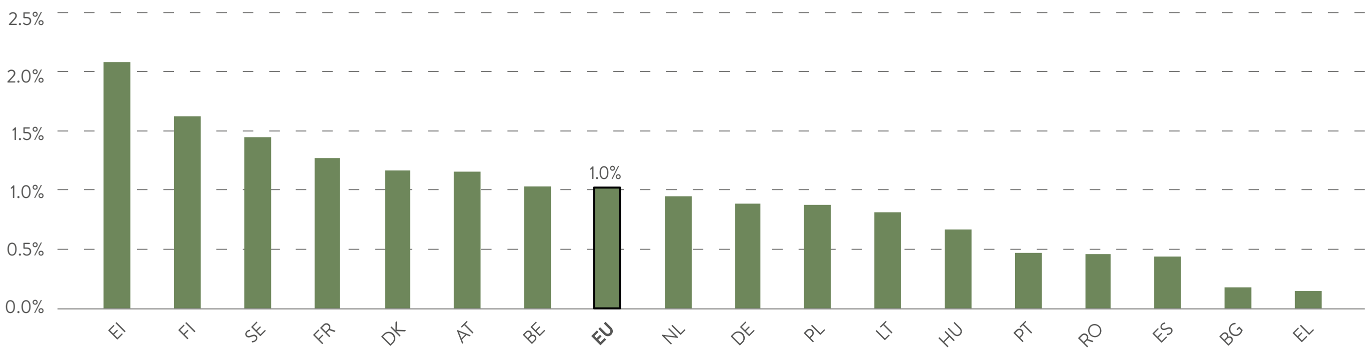
Note: in this figure, building permit issuance deviation refers to the statistical difference between 2021 building permit volumes and the average unweighted volumes of the 2012-2020 period.

Most countries in the EU had increased issuance of building permits over the last 10 years, with the exception of Bulgaria (a 33.4% decrease), France (-2.6%), Italy (-25.4%) and Norway (-0.1%). Furthermore, permit issuance more than doubled in Ireland (537%), followed by Estonia (189%), Hungary (182%), Sweden (180%), Malta (147%), Portugal (145%), Spain (145%), Denmark (131%) and Lithuania (114%).

Relative to the dwelling stock (Chart 13), newly issued building permits in 2021 were equal to 0.86% of the combined EU27 and UK building stock, 0.12 pps more than in 2020.

In 2021 the permit to stock ratio increased for every country, except Romania and Austria, as shown in chart 13. Denmark registered the highest increase, of more than 3%, while Ireland, Sweden, Germany, Netherlands, Poland, Lithuania, Greece, Finland and Portugal continued to follow the upward trend last seen in 2020.

CHART 13 | BUILDING PERMITS AS A PERCENTAGE OF THE DWELLING STOCK (2021) – NATIONAL AND EU AVERAGES

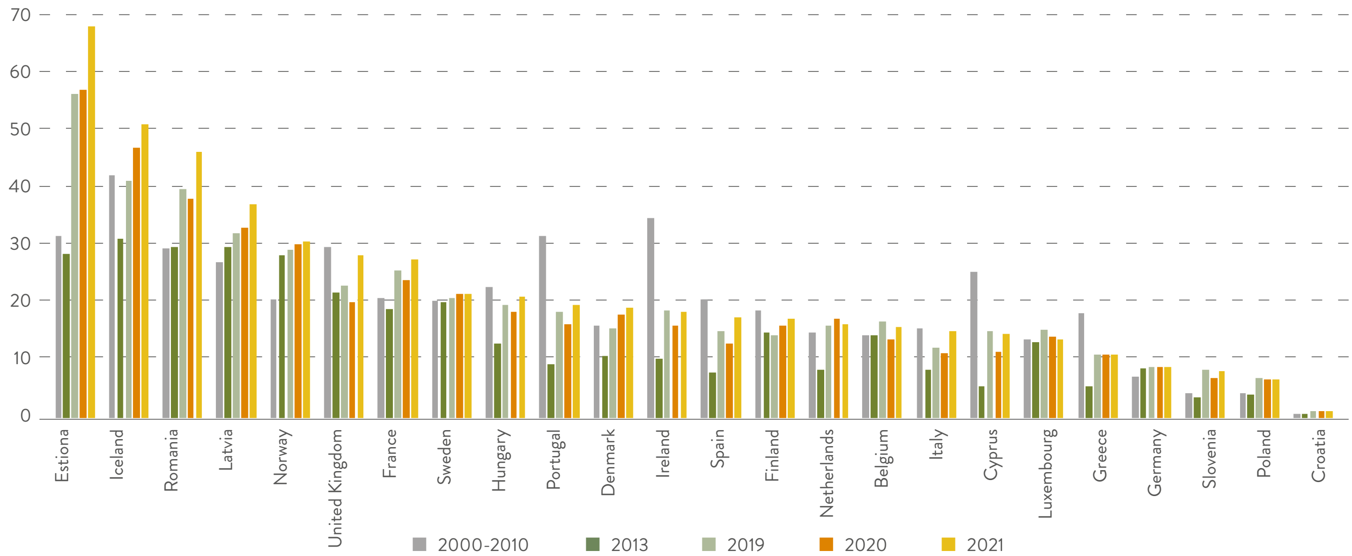


Source: European Mortgage Federation

In the meantime, the number of residential transactions (Chart 14) in the EU increased in 2021 to approximately 5.7 mn (a growth rate of 6.5%), following a 5% decrease in 2020.

From a country standpoint, the jurisdictions that saw the largest increase in 2021 were the Baltics, Iceland, Romania and Norway. France and the UK also recorded significant increases relative to other periods. It is worth pointing out that the UK recorded the highest number of transactions in 2021 compared to other countries considered here, as volumes grew by 41.2% compared to 2021.

CHART 14 | RESIDENTIAL TRANSACTIONS PER 1,000 ADULTS



Source: European Mortgage Federation

HOUSE PRICE TRENDS

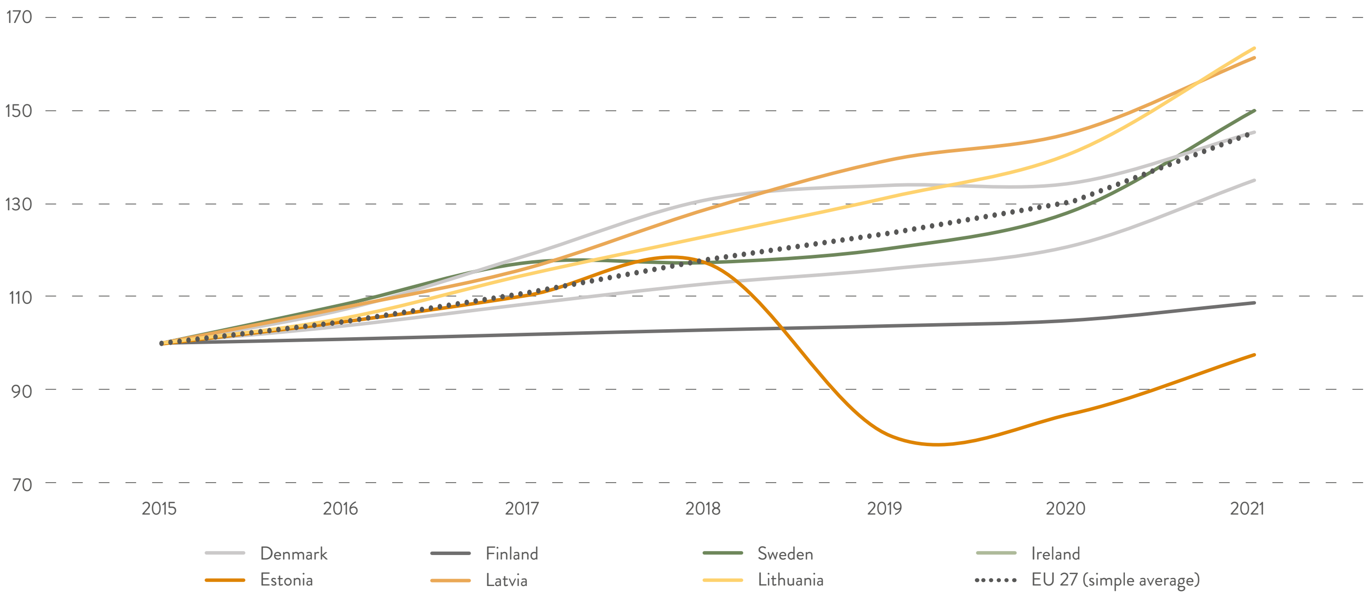
As in previous years, there was a significant increase in house prices across the EU27. The average European (EU27) HPI expanded by 11.3%, after a 4.8% increase in 2020. In the euro area, a similar narrative can be outline: the average house price expanded by 10%, up from a yearly growth rate of 5% in 2020. In line with the two European aggregates, average house prices increased in every Hypostat jurisdiction, albeit at a different pace.

A. NORTHERN EUROPE

House prices across the Nordic countries grew in 2021 by at least by 10% compared to 2020, save for Finland. In Sweden, by 16.1%, the third highest of all the Hypostat jurisdictions (after Czechia and Slovakia). In Denmark prices increased by 11.7%, up from a 4.3% in 2020 and in Finland, by 3.8%.

In Ireland, prices rose by 8.2% (significantly up from 0.4% the previous year). House prices also rose in the Baltics, especially in Lithuania and Estonia, by 16.1% and 15.1% respectively, with the latter continuing the recovery trend after the 2019 price contraction.

CHART 15 | NORTHERN EUROPE HPI



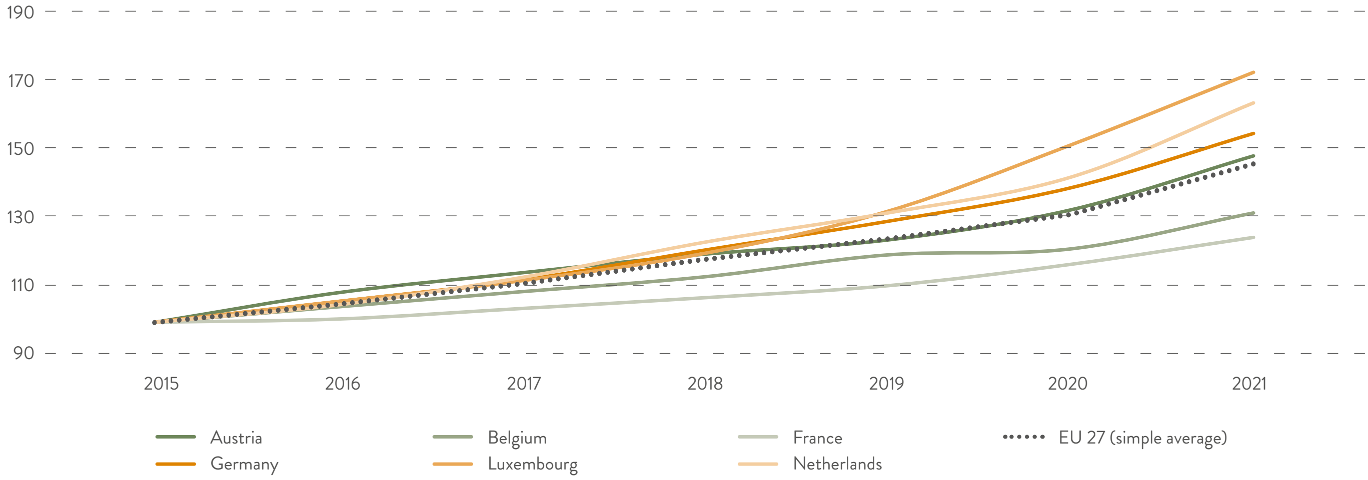
Source: European Mortgage Federation

B. CONTINENTAL EUROPE

In Continental Europe, house prices increased in 2021 above the EU average, with the lowest rate of growth (6.7%) registered in France and the highest in the Netherlands (15.2%, almost double the prior year), followed by Luxembourg (13.9%).

In Austria and Germany, house prices grew by 11.8% and 11.3%, respectively, while in Belgium there was an 8.6% increase, further accelerating from the 1.4% yearly increase reported in 2020.

CHART 16 | CONTINENTAL EUROPE HPI



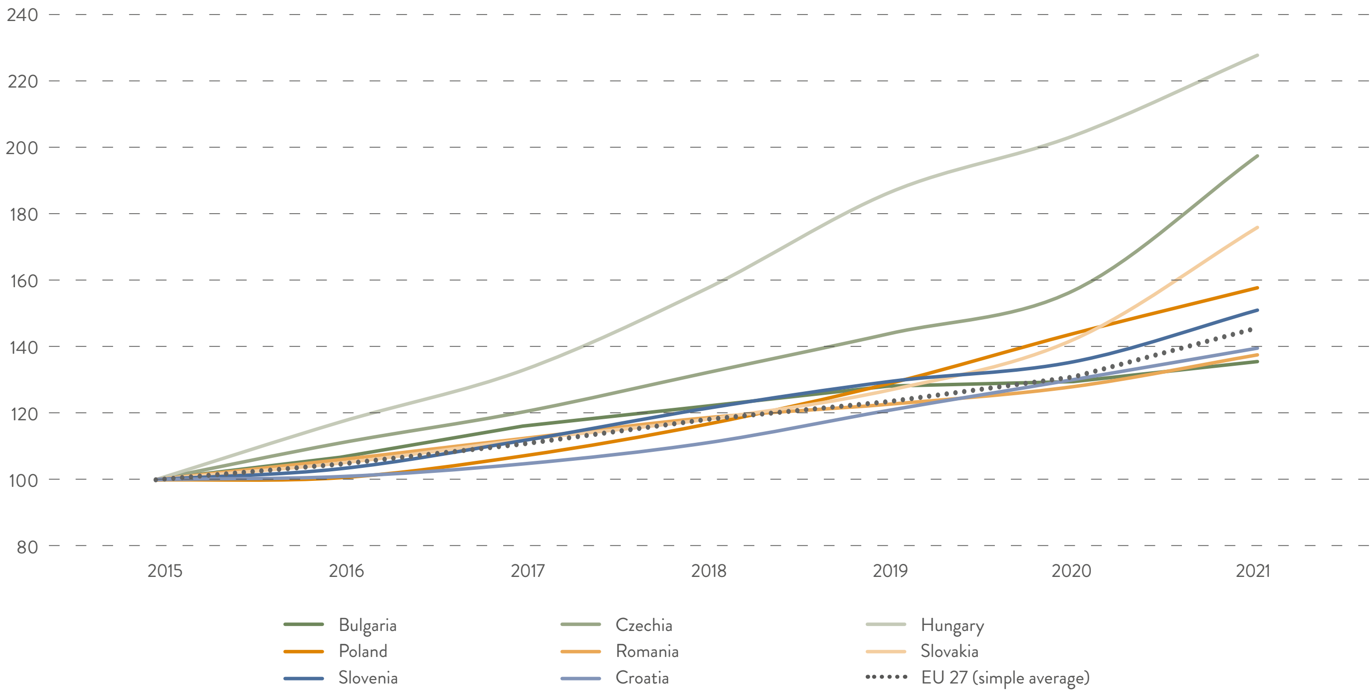
Source: European Mortgage Federation

C. CENTRAL AND EASTERN EUROPE

House prices also grew in Central and Eastern Europe in 2021, on average by 12.7%, largely more rapidly than elsewhere in the EU27.

Czechia and Slovakia had the highest increases in 2021, at 25.8% and 23.7% respectively. In neighbouring Slovenia and Hungary house prices increased by over 11%. Lastly, in decreasing order of growth, Poland (9.6%), Romania (7.5%), Croatia (7.3%) and Bulgaria (4.5%) had increase below the Central and Eastern Europe average.

CHART 17 | CENTRAL AND EASTERN EUROPE HPI



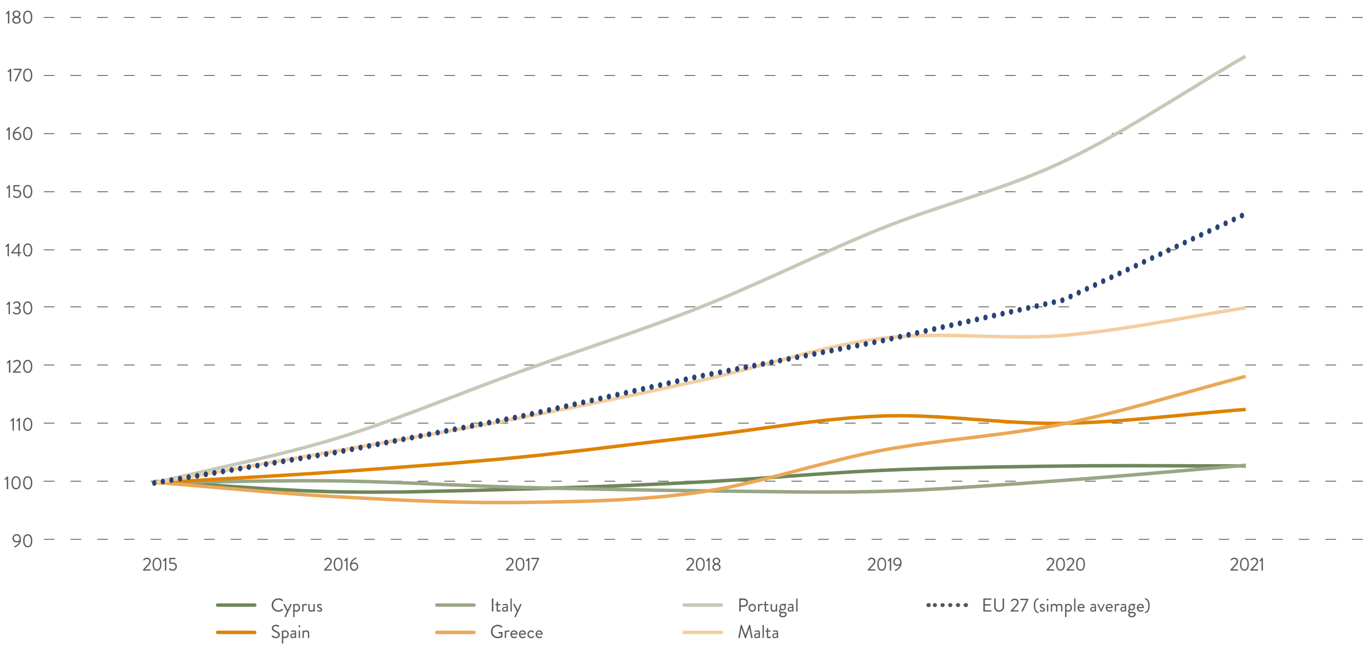
Source: European Mortgage Federation

D. SOUTHERN EUROPE

Lastly, in Southern Europe, as in other parts of the continent, nominal house prices increased in every jurisdiction, although comparatively slower, as in 2020. The highest price rise was in Portugal (11.6%), followed by Greece (7.3%).

After three consecutive years (2017-2019) of decreasing prices in Italy prices again grew building on the 2020 recovery. House prices increased at 2.6%, the highest rate in a decade. In Malta HPI values rose by 3.7%, while in Spain and Cyprus, house prices increased at a comparatively slower pace, 2.1% and 0.02%, respectively.

CHART 18 | SOUTHERN EUROPE HPI



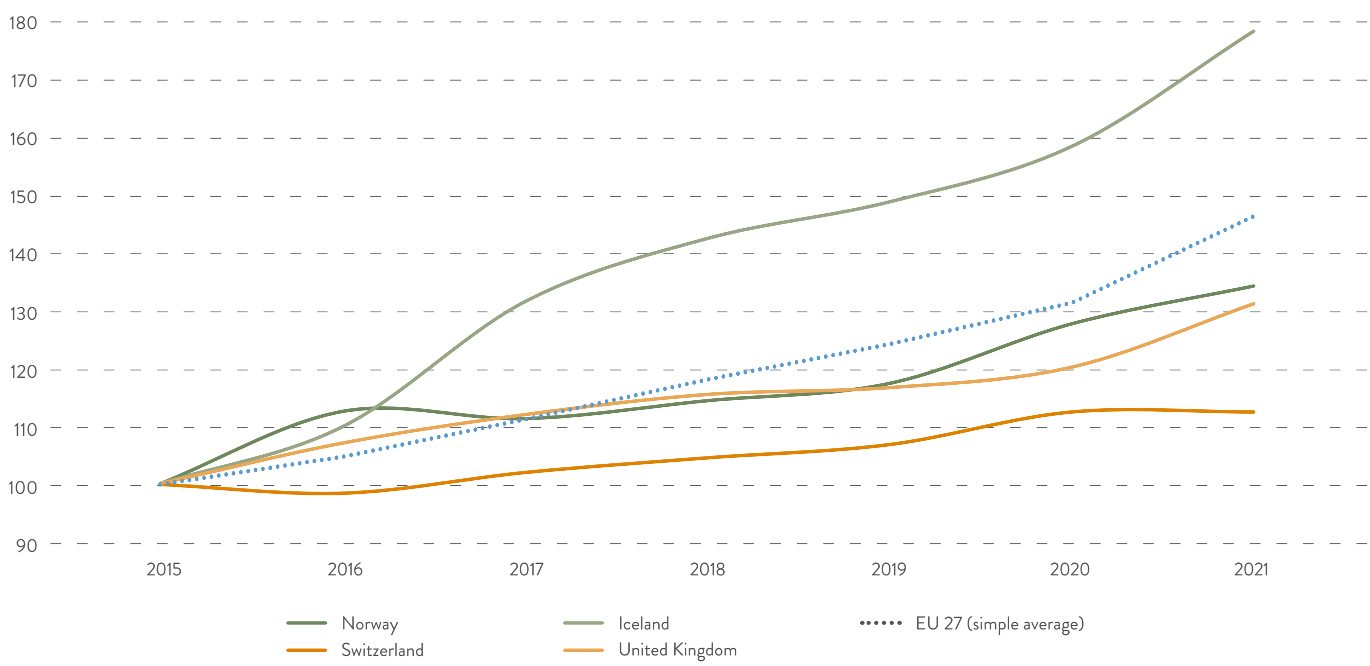
Source: European Mortgage Federation

E. NORWAY, ICELAND, SWITZERLAND AND UK

Overall house price levels also increased at a significant pace in other relevant non-EU markets.

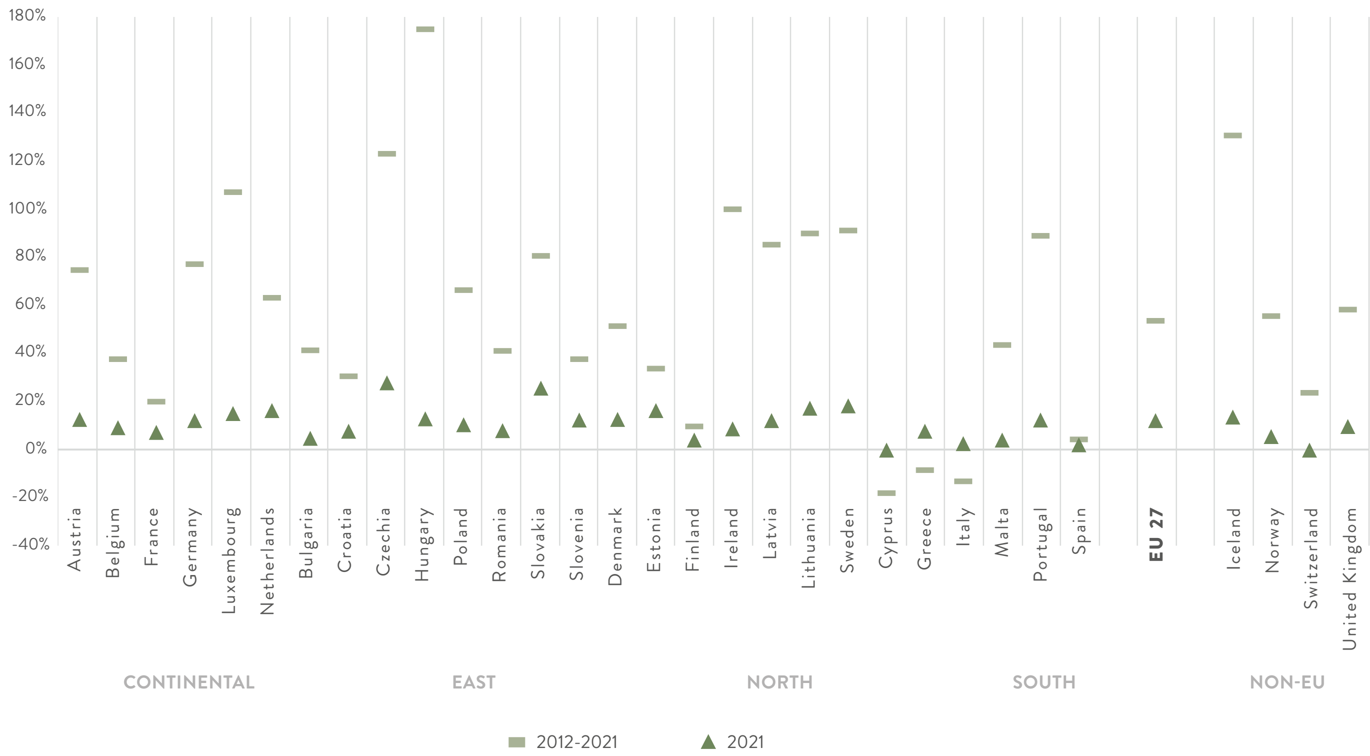
In the UK, residential prices rose by 9.1%, while in Norway the increase was 5.1%. Iceland saw residential prices go significantly up by a yearly 12.5%, almost doubling the 2020 growth.

CHART 19 | NORWAY, ICELAND, SWITZERLAND & UK HPI



Source: European Mortgage Federation

CHART 20 | HOUSE PRICE INDEX GROWTH (2021 YEARLY GROWTH RATE & 2012-2021 GROWTH)



Source: European Mortgage Federation

In the 2012-2021 period, the average European house price increased by almost 50%.

In Northern Europe: Swedish prices rose by 84%, in Denmark by 47% and in Finland by 9.3%. In Ireland prices increased by more than 92% over the same period, while Latvia and Lithuania experienced an increase in local house prices by 79% and 83%, respectively.

Every country in the Continental Europe area also had house prices increase over this ten-year period. The largest increase was in Luxembourg, where prices almost doubled (98%), followed by Germany and Austria, whose house prices rose by 71% and 69%, respectively. As in 2020, the rest of the region had lower growth: Dutch prices rose by 58%, Belgian prices by 35% and French prices by 18.6%.

Every jurisdiction in Central and Eastern Europe also had increased prices over the last decade, especially Hungarian and Czech house prices by 161% and 114% respectively. In Poland and Slovakia nominal house prices increased by more than 60%, while Romania and Bulgaria both had 382% price increases. Slovenian and Croatian prices rose by 35% and 28%.

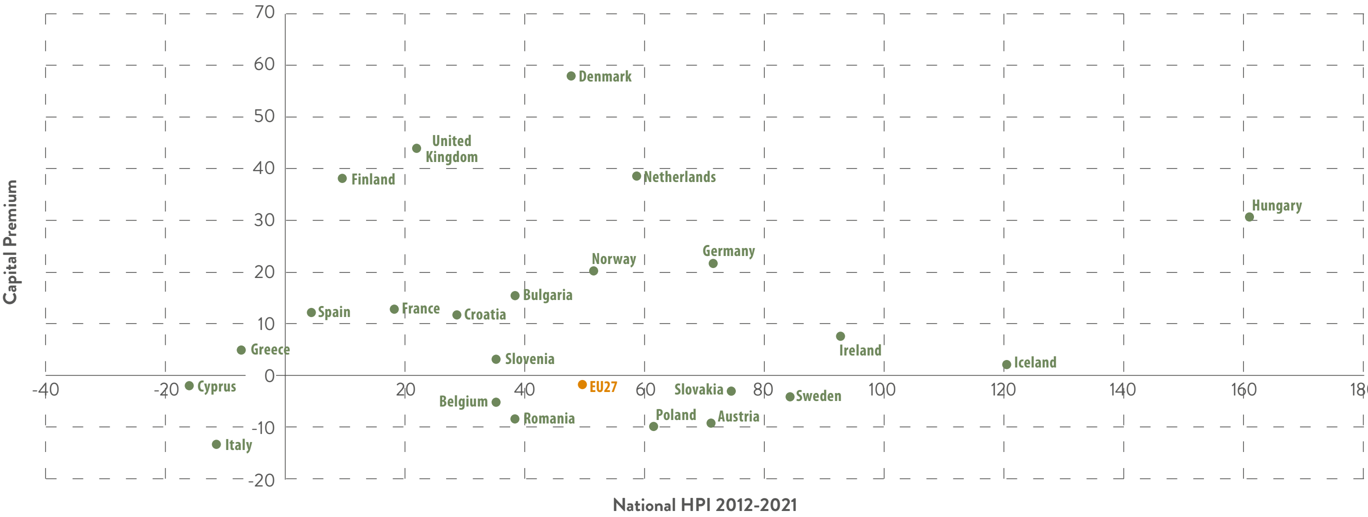
Prices of the longer time horizon in Southern Europe were heterogenous. From 2012 to 2021, prices decreased in Cyprus (down by 16.2%), Italy (11.7%), and Greece (7.5%). This contrasted with increases in Spain (4%), Malta (40%) and Portugal (82%).

Outside the EU, prices increased by more than 50% in Norway, the UK, and Iceland (where prices grew by 120.4%). In Switzerland house prices grew by only 22.2%.

CAPITAL CITY PRICE PREMIA POST PANDEMIC: AN EVOLVING SCENARIO

Looking at capital city house prices in 2021, a diversity of developments can be pinpointed. The *capital premium*[5] - the additional price borrowers pay for dwellings in the capital – shrank in 2021: overall house prices grew by 11.3% but in the capital by just 8.2%, 3.6 pps less than the HPI of the country. However, the picture is mixed with some countries still showing capital house prices rise faster than the country average.

CHART 21 | CAPITAL CITY HOUSE PRICE VS NATIONAL COUNTRY PRICES (2012-2021 % CHANGE)



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

Source: European Mortgage Federation

In Denmark and Sweden, overall house price grew by 11.7% and 16.9% respectively on a yearly basis, while prices in the capital region grew by 19.9% and 18.6%. In Finland and Ireland house prices rose by 3.8% and 8.2%, as well as the capital ones by 6.2% and 7.2%, 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 15.2% in 2021, while Amsterdam prices in particular expanded by a relatively slower 11.2%. In Austria, the national prices rose by 11.8%, but Vienna, among all the capital cities in this subgroup, saw the highest increase of 10.8%.

In most countries considered in this report, capital house prices grew slower than the national average. The differences, however, varied significantly. For instance, capital house prices growth was marginally slower (i.e., below the 1.5 pp threshold) than the average HPI expansion rate, in Austria, Germany, Ireland, Slovakia and Iceland. In the United Kingdom, in the meantime, national average prices were 5 pps higher than London.

Cyprus and Italy are the only European countries which reported decrease in their capital house prices of 0.6% and 0.4%, respectively.

Is the change in the capital premium a reflection of the change in housing demand and lending, given the special economic and health circumstances of the pandemic or part of a longer trend?

Over the long-term, comparing figures to those of 2012, EU27 national house prices have grown by 49.5% since 2012, 1.3% higher than average capital city house prices.

However, there are several countries where the capital prices have increased significantly more than the national ones, such as Denmark, (in Copenhagen prices increased by 106.3%, vs 58.7% for the country as a whole), the UK (65.6% compared with 21.7%) or the Netherlands (97%, compared with 59%).
Germany, Spain, and France, in the meantime, saw capital city prices increase higher than the national one, for a premium of 21.9, 12.6, 1.2 pps respectively. Conversely, the countries where national prices grew more than their capitals were Italy, Poland, and Austria, with a difference of 12.8, 10, and 9.9 pps, respectively.

Lastly, countries such as Cyprus, Slovakia, Iceland, and Slovenia, there has been recorded a slight premium, which means that the capital prices and national ones were relatively aligned.

All in all, there is no clear trend indication, given the heterogenous nature of the European mortgage markets. Nevertheless, the yearly changes seen in 2021 and the longer term evolution of national prices relative to capital city prices would indicate that the 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.

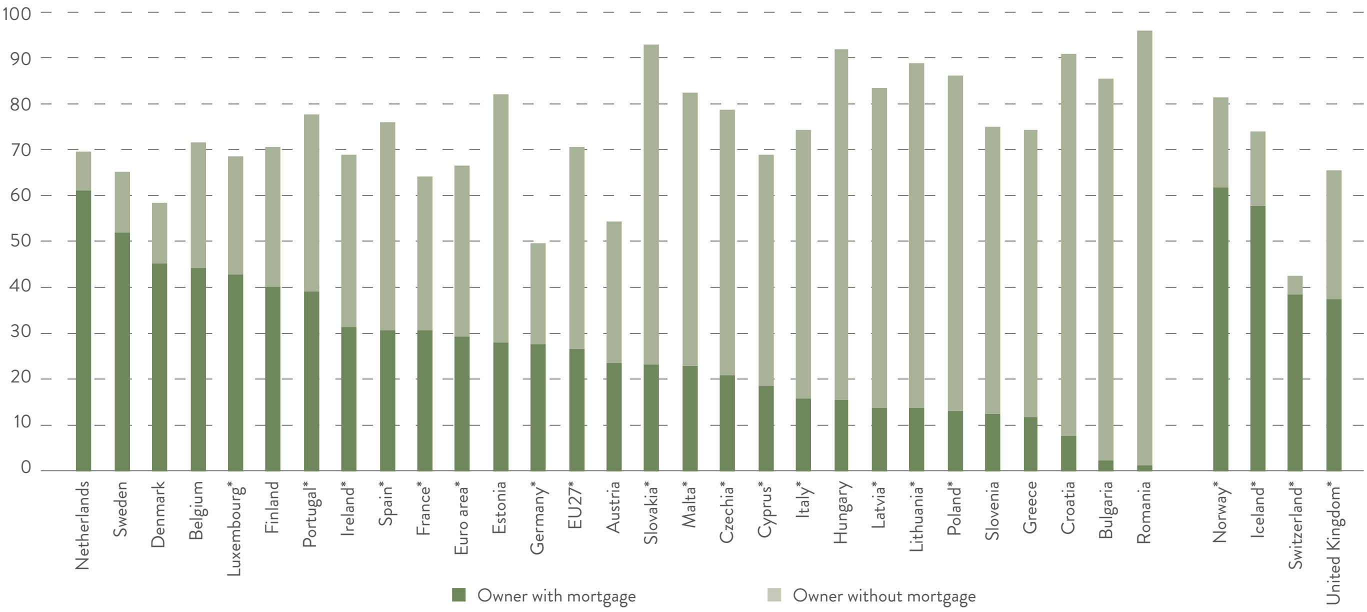
[5] The capital premium is the difference between a country's average national HPI and that of its capital city. This difference can be calculated both as an index value or as a growth rate. A positive score would indicate that house prices in the capital are higher (or increased at a faster pace) than 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 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.

CHART 22 | HOMEOWNER SHARE AND MORTGAGE HOLDERS IN 2021, IN PERCENT



NOTE: countries with an asterisk * refer to 2020 data, as there is no 2021 data available.

Source: Eurostat

Over the last decade, as shown in Chart 23, the proportion of European homeowners 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.

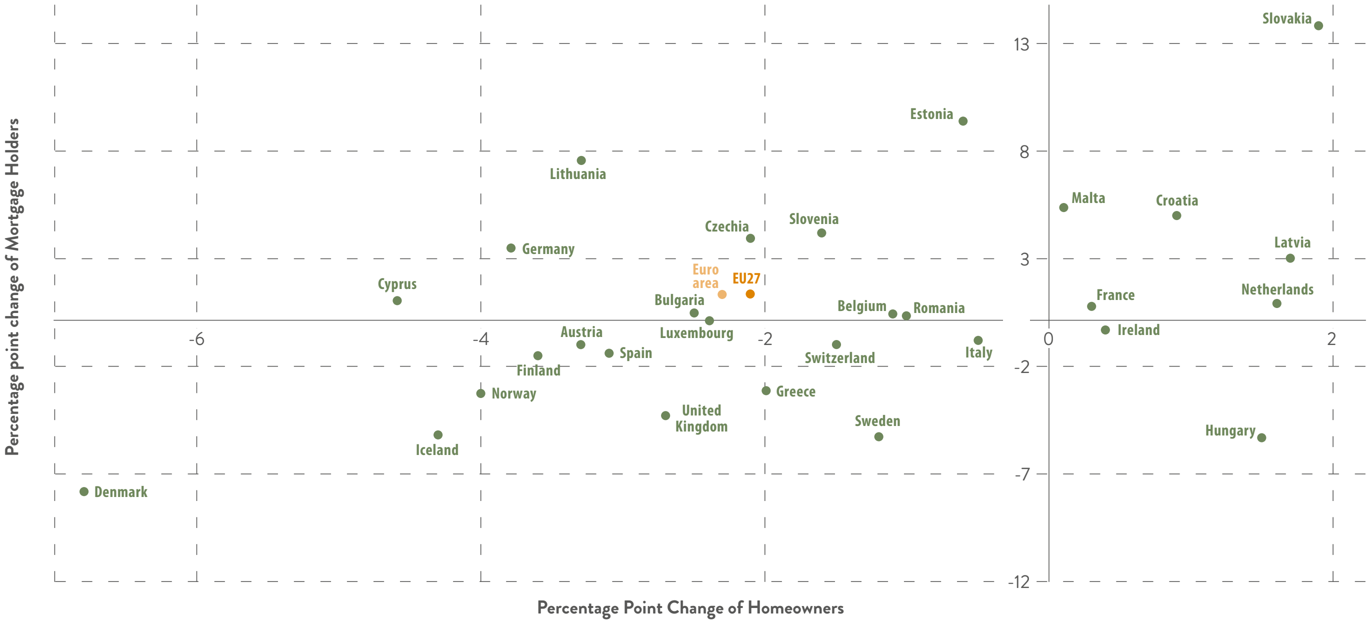
Regarding mortgage borrowers, these increase across several jurisdictions during the 2012-2021 period. The largest decade-long increases took place in Slovakia (+13 pps), although significant increases in Estonia, Latvia, Malta or Croatia, to name a few. Furthermore, mortgage borrowers increase in jurisdictions 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.

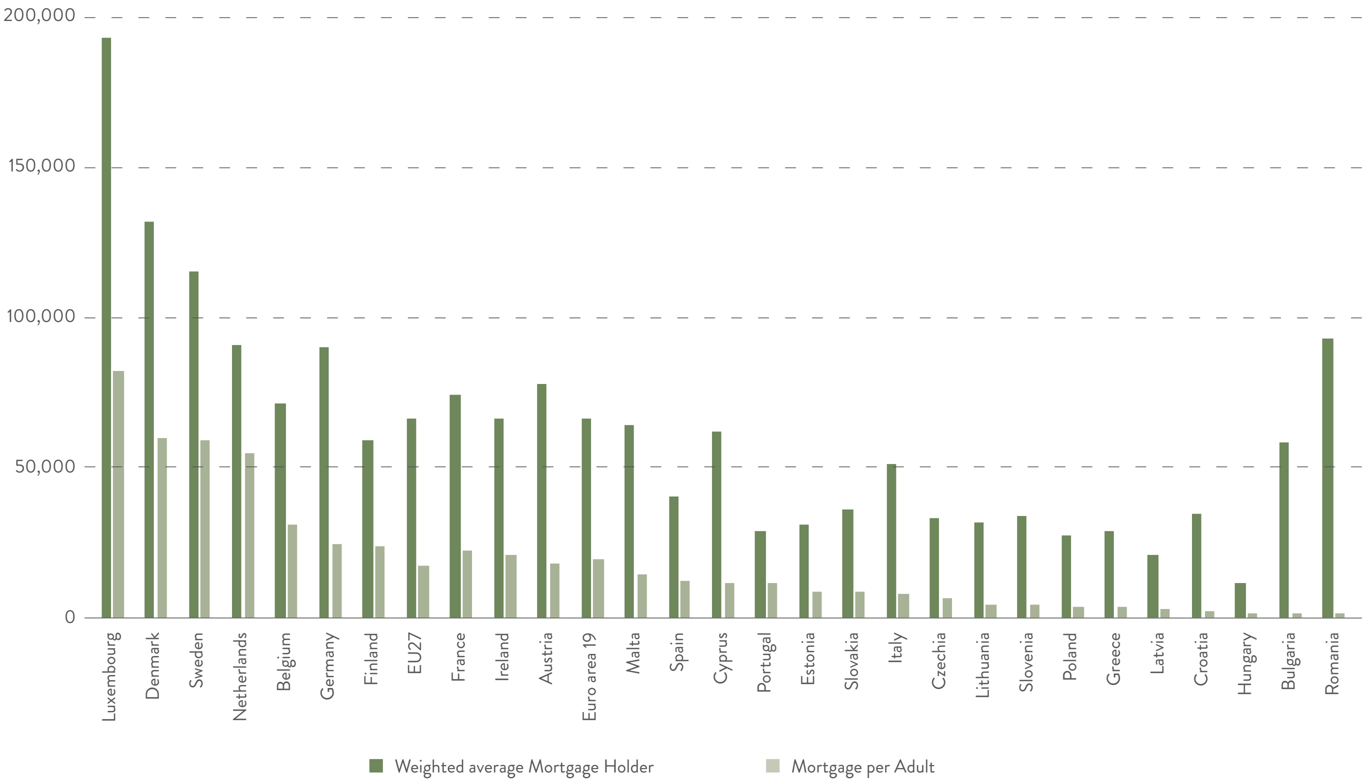
CHART 23 | CHANGE IN HOMEOWNERSHIP AND MORTGAGE BORROWERS 2012-2020, PERCENTAGE POINTS



NOTE: The homeownership data for several countries refers to 2020 their latest data. More information can be found on Table 11 of the Statistical Annex.

Source: Eurostat, European Mortgage Federation

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



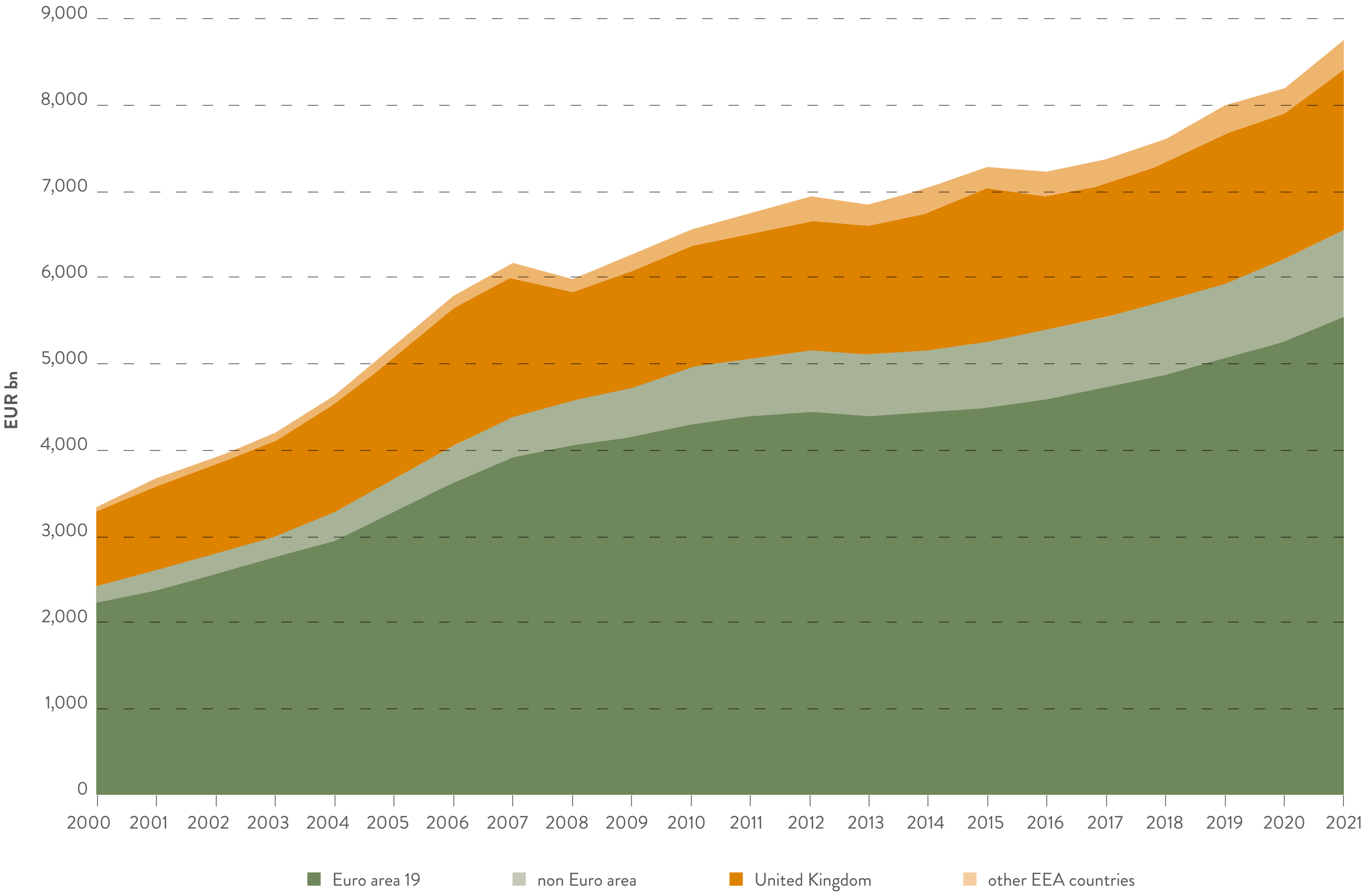
Source: Eurostat, European Mortgage Federation

RESIDENTIAL MORTGAGE LENDING

The total EU mortgage market continued to grow in 2021, passing EUR 6.3 tn. Adding the UK, Norway and Iceland, the figure reached EUR 8.7 tn outstanding, a new all-time high for the region[6]. The EU mortgage stock increased by 2.7% y-o-y.

Outstanding mortgages in the euro area increased by 5.3%, the largest increase since 2008 and 1.3% more than in 2020. In the non-euro area mortgages outstanding increased by 5.1% (in EUR equivalent terms), from 6.6% in 2020. The non-euro area relative share of the EU27 total increased by 5.1%, a slower pace than previously. The effect of exchange rates should be commented on briefly. When converting values, Sweden, Poland and Hungary saw a depreciation of 2.2%, 0.8% and 1.5% respectively relative to EUR values. The 4.6% appreciation of the Norwegian krona offset the mortgage market growth there when converted into EUR. In the UK outstanding mortgages in EUR terms increased by 11.6% due to the 6.5% appreciation of Pound Sterling to EUR.

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



Source: European Mortgage Federation

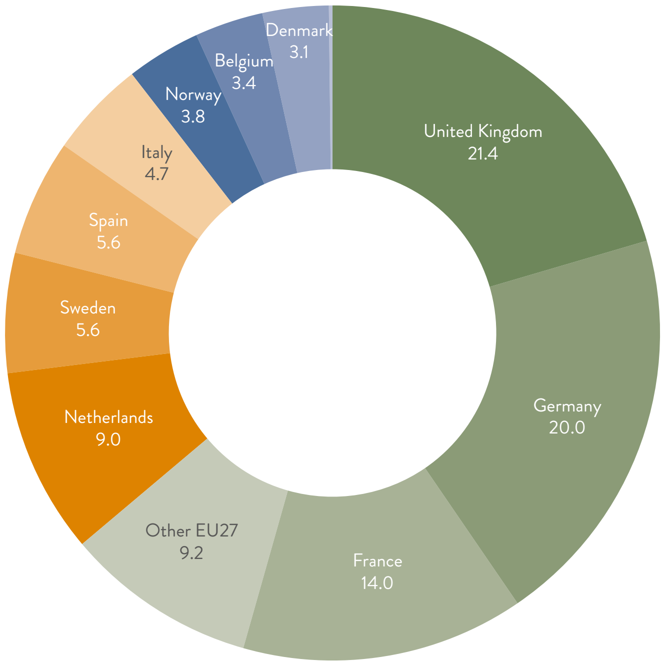
There has been little change in the ranking of the largest mortgage markets. Germany, France, the Netherlands, Spain, Sweden and the UK combined represent more than 75% of outstanding mortgages in the EU27 and UK aggregate. The Dutch mortgage market, for instance, is almost equivalent to the total of the 19 smallest EU mortgage markets. The UK and German markets in 2021 were the largest, at EUR 1.8 tn and EUR 1.7 tn respectively. Spain remains the largest in Southern Europe, Sweden the largest among Northern European jurisdictions and Poland the largest in Central and Eastern European area.

[6] 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.

Over the past 10 years, mortgages in the EU27 grew by 24%, 3% of which was in 2021. In the UK the growth was the same as in the EU27. This is supported by growth in the majority of Member States, especially in Continental Europe. However, in Southern Europe, with the exception of Malta and, to a lesser extent, Italy, no jurisdiction saw mortgage market growth over the course of the decade. In 2021, mortgage markets grew in Spain, Portugal, Italy and Malta while Cyprus shrank by 3%.

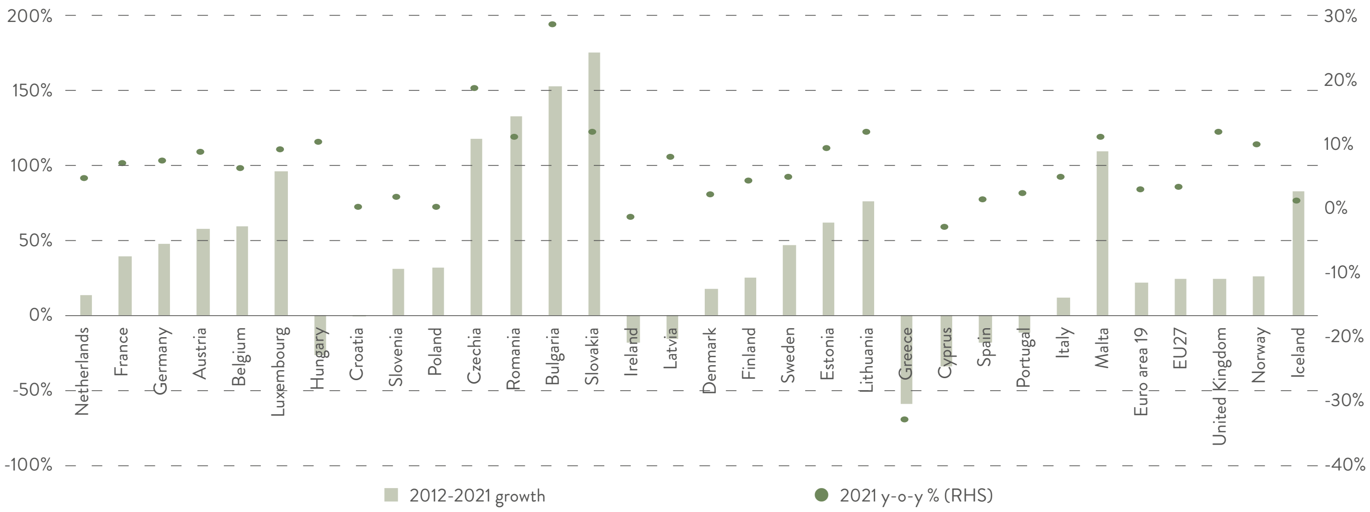
Furthermore, from 2012 to 2021, in Eastern Europe, all markets grew except for Hungary, which shrank 27% over the decade. Slovakia had the highest growth in outstanding, by 175% from 2012, while Bulgaria was the one which increased most in 2021 (by 28%). Steady growth occurred throughout continental Europe over the past decade, with mortgage markets nearly doubling in Luxembourg and increasing by 50% for most of the rest, except for the Netherlands where the increase was 13%. In Northern Europe, the market grew by 62% in Estonia, Sweden and Lithuania over the decade but decreased in some countries such as Latvia and Ireland.

CHART 26 | OUTSTANDING MORTGAGE MARKET IN EUROPE 2021, IN PERCENT



Source: European Mortgage Federation

CHART 27 | OUTSTANDING MORTGAGE LOANS EVOLUTION 2012-2021



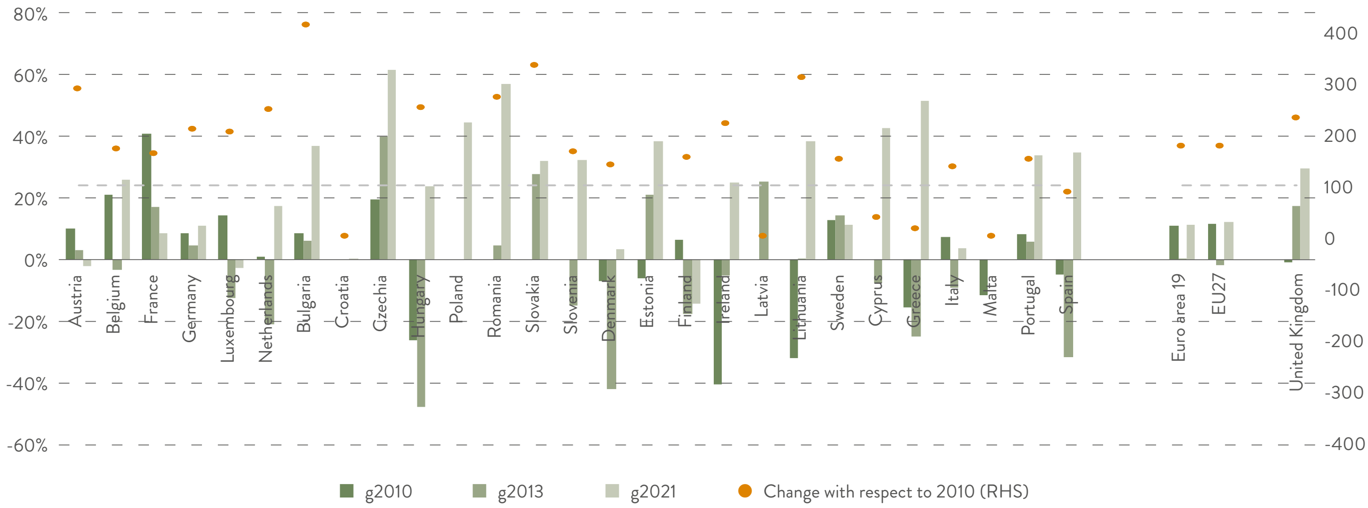
Source: European Mortgage Federation

Gross lending grew by over 8.7% to EUR 1.1 tn in the EU27 in 2021, surpassing the all-time high of 2020.

Compared to post crisis years such as 2010 and 2013, which followed periods of deep contraction (2009) or particularly slow growth (2012), gross lending in 2021 has expanded quite significantly throughout the year.

As shown in chart 28, the volume of gross lending in 2021 outpaced the growth of 2010 and 2013 except for Austria, Denmark, France, Italy, Luxembourg and Sweden which experienced either a contraction or a small growth compared to the previous recovery years. In most countries, gross issuance of mortgages in 2021 was greater than in 2010.

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



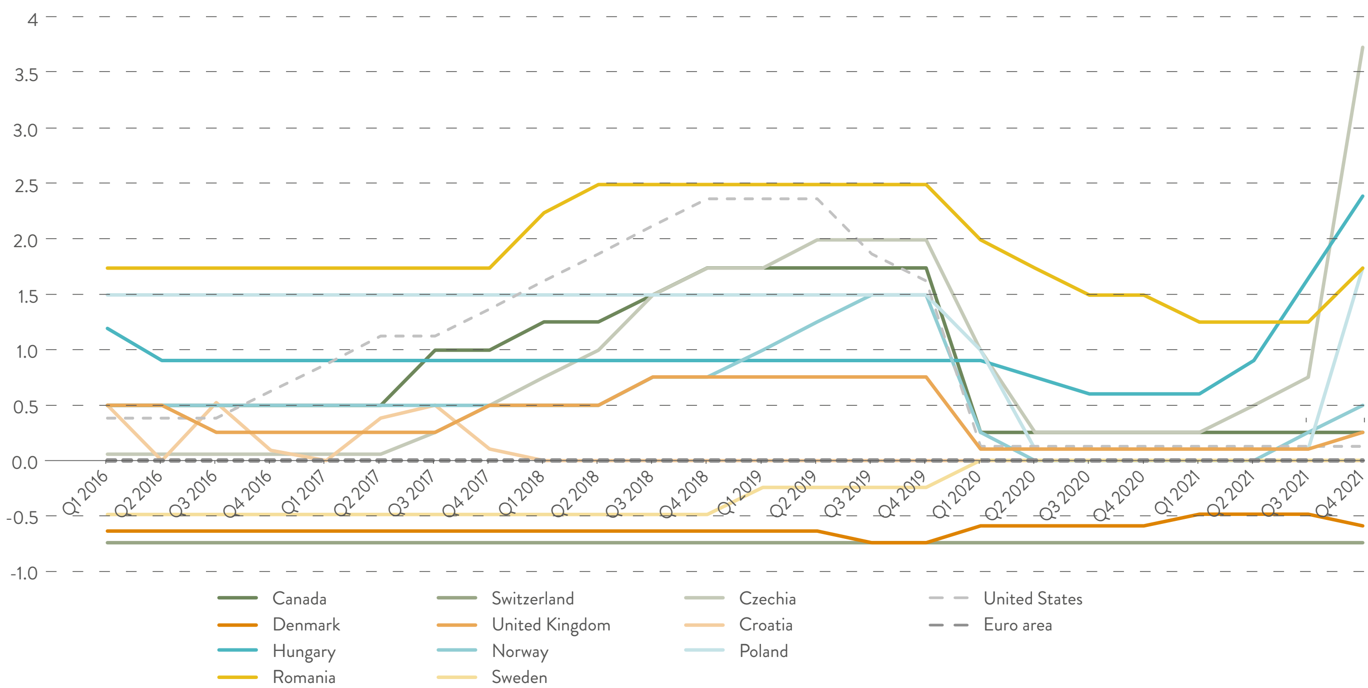
Source: European Mortgage Federation

MORTGAGE MARKET INTEREST RATES

Aggregate mortgage interest rates continued to fall in 2021. The proportion of variable interest rates (with an initial fixed period of up to 1 year) varies considerably by country; in Bulgaria, Cyprus and Lithuania almost all mortgages are on a variable rate while in Hungary, Czechia 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 2020.

In 2021, the ECB did not change its policy rate, which has been 0% since March 2016, echoed by the Swiss Central Bank, which has kept its rates constant at -0.75% since 2015, the lowest rate amongst central banks. The Federal Reserve, together with the Central Banks of Japan, Canada, and Sweden also kept their rates constant in 2021. Rates rose in 2021 in several European countries, especially in Czechia , where the interest rate in 2021 Q4 was at 3.75%, the highest in Europe. Only in Denmark did the Central bank cut the reference rate. The UK central bank raised the rate at 0.25% in the last quarter of 2021. As far as 2022 is concerned, the central banks of all major economies, except for Japan, saw their policy rates increase due to inflationary pressure.

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



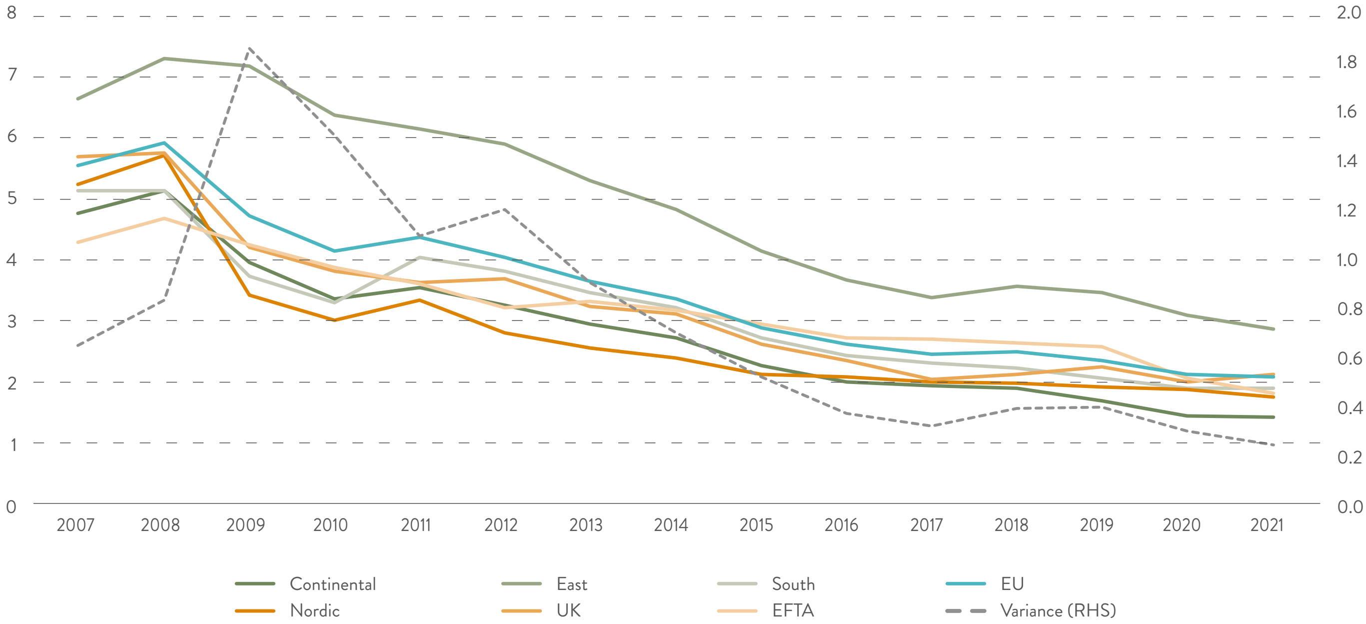
Source: Bank for International Settlements

Average European interest rates on mortgages (EEA and UK) continued the downward path started in 2019 to an average 2.07%, a new all-time low (5 bps lower than in 2020).

Even though most countries still had decreasing interest rates, an increasing number started to increase including Luxembourg (+0.36 bps), Poland (+0.16) and Italy (+0.15 bps), with marginal increases in Germany, Cyprus and Denmark.

Despite the overall decrease in rates there is still heterogeneity, as can be seen in Chart 30 interest rate changes follow a similar pattern but from different levels. Jurisdictions grouped in the Continental Europe area have, comparatively, lowest rates (on average, 1.41%), followed by Northern European countries (1.75%) and South European jurisdictions (1.90%). Eastern European experienced the largest decrease in 2021, reaching an average of 2.86%. In UK interest rates also increased reaching 2.11%.

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

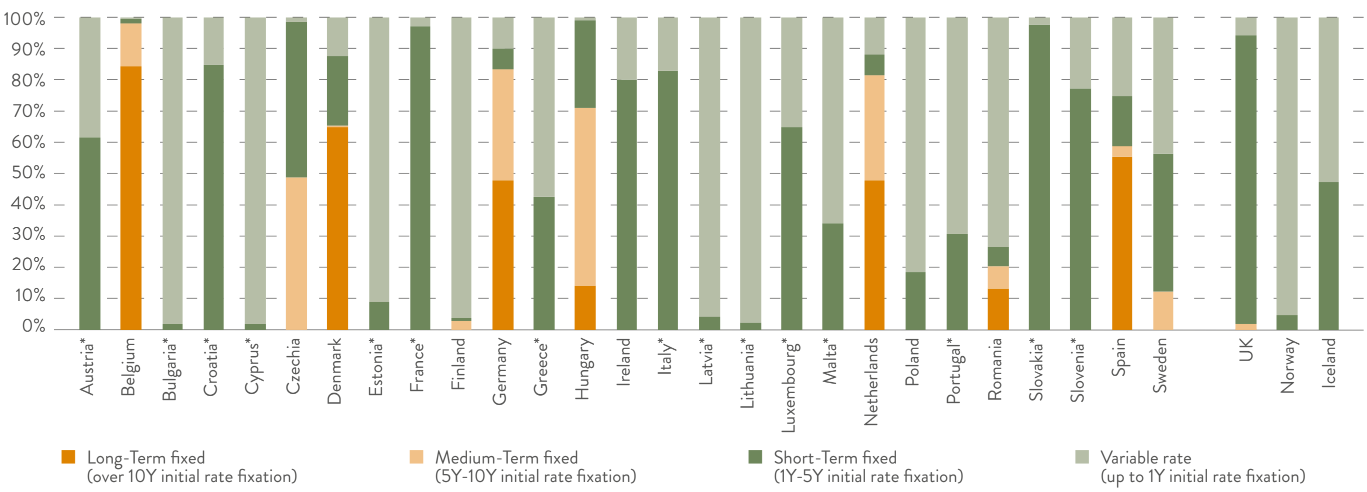


Source: European Mortgage Federation

DIFFERENT TYPES OF INTEREST RATES

The preference for fixed or floating mortgages varies as there is no common tradition in terms of lending or borrowing, national credit frameworks differ and borrowers often pursue the most favourable rates. 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 and Poland almost exclusively provide variable interest rates as shown by Chart 31. In the UK most new mortgages are for short term fixed periods.

CHART 31 | MORTGAGE MARKET GROSS ISSUANCE BREAKDOWN BY INTEREST RATE TYPE IN 2021

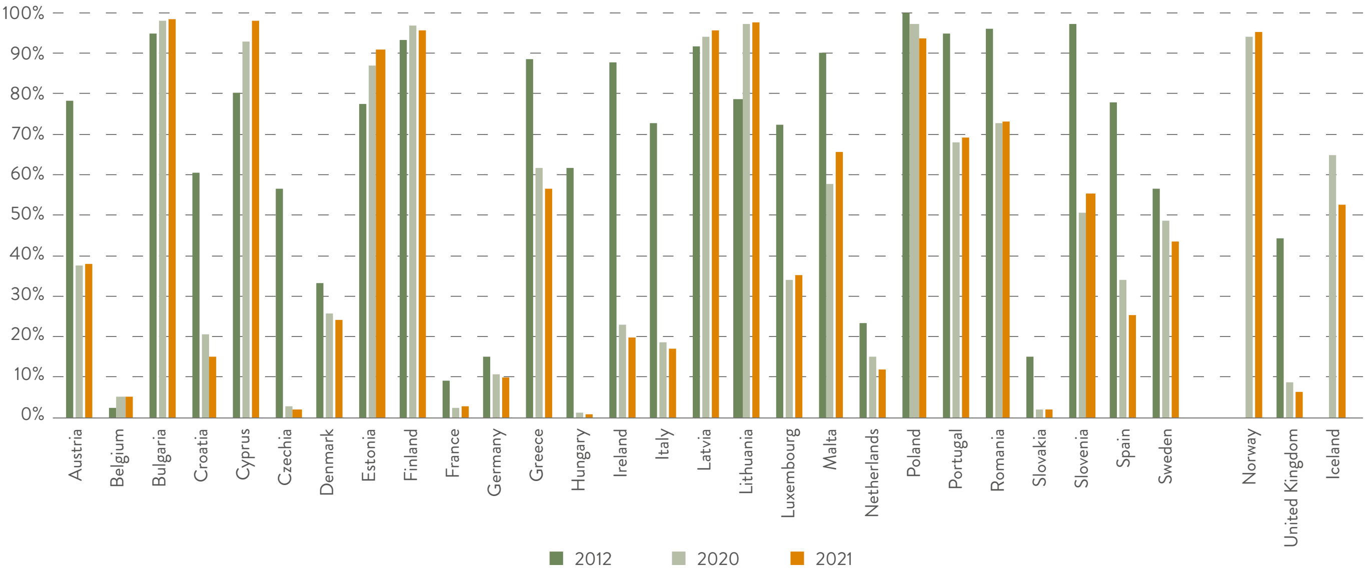


NOTE: *for these countries all mortgages with a fixed rate over 1 year are combined.

Source: European mortgage Federation

Chart 32 shows how the preference for a variable interest rate has shifted over time in each country. Variable interest rate mortgages were more popular in 2012 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 78% and 94% of new lending in 2012, but are now 25% and 69%, respectively. In Central and Eastern Europe, the percentage of variable mortgages rates plummeted in Hungary, Slovakia and Croatia, while they increased in Bulgaria. In 2012, in Poland new lending is predominately one of variable rate mortgage (the current share is 93%). In the EU27 and UK, variable interest rate mortgages

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



Source: European Mortgage Federation

were slightly over 15% of total origination, continuing a ten-year-long declining that started in 2011, when it was 37%. Although in absolute terms it had increased to more than EUR 242 bn.

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 33 | EVOLUTION OF GROSS LENDING MORTGAGES WITH VARIABLE INTEREST RATES

Source: European Mortgage Federation

Austria

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

IN A NUTSHELL

- → The economy grew by 4.8%,expected to grow by 3.5% in 2022 with 5.3% inflation (forecast of May 2022).
- → House prices rose by more than 12%.
- → Construction investment increased by 2.1%, the number of real estate transactions increased by 9.1%.
- → Policy measures were introduced to help households including mortgage payment moratoria.
- → Subsidised housing continues to be a pillar of construction financed with subsidies from the Länder ("Wohnbauförderung").

MACROECONOMIC OVERVIEW

The economy recovered more strongly than expected from the sharp contraction in 2020. With the onset of another wave of infections, the rebound slowed in late 2021/early 2022. GDP growth was 4.8%, only affected slightly by this covid wave. The conflict in Ukraine will likely cause output growth to decelerate and inflation to rise. The latest update of the OeNB's economic outlook from March 2022 indicates that the war will inhibit growth and add to inflation. On a best case assumption of a timely end of the conflict, the OeNB expects the economy to grow by 3.5% in 2022 with inflation increasing to 5.3%. Compared with projections in December 2021, this is a downward revision of 0.8 pps for GDP and an upward revision of 2.1 pps for inflation. While the impact of the conflict in Ukraine accounts for roughly half of the downward revision of output growth, its impact on the upward revision of inflation is about a quarter.

For 2023 and 2024, the OeNB forecasts output growth to decline to 2.2% and 2.0%, and inflation to ease to 2.9% and 2.3%, respectively. These figures are the results of OeNB's forecast update. Alternative scenarios – that is, assuming protracted conflict, ongoing sanctions and a reduction of Russian gas supplies– yield much higher output and inflation effects.

HOUSING MARKETS

The steep increase in residential property prices since the second half of 2020 has continued. Price growth remained above 10% y-o-y in the fourth quarter of 2021 — both in Vienna and in the rest of the country. In Vienna, prices increased by 11.3%, while prices in the other provinces rose by 13.9% year on year. For Austria as a whole, house price growth reached a new peak at 12.6% in the fourth quarter, following a 10.6% y-o-y rate of increase in the third quarter.

Compared with the previous quarter, house price growth increased in all segments. Having picked up by 3.9% in the first quarter of 2021, residential property prices increased by 2.4% in both the second and third quarters. In the fourth quarter of 2021, q-o-q growth accelerated again, reaching 3.2%. For Austria's provinces excluding Vienna, growth accelerated even more markedly to 4.4% in the fourth quarter (after 1.5% in the third quarter).

Given the steep increase in prices, the OeNB's fundamentals indicator for residential property prices for the whole country went up significantly in the course of 2021, signaling increasing overheating of the residential real estate market in Austria. At 29.8%, the indicator was up 7.6 pps on the previous quarter – the sharpest increase since the start of the series in 1989. The indicator for Vienna in particular amounted to 35.6% in the fourth quarter of 2021, representing of 5.1 pps increase compared with the third quarter.

The residential property sector has shown to be more resilient to the pandemic than the commercial property sector. The social and affordable housing sector – municipal housing, limited-profit housing associations (LPHA) and rent-regulated private apartments – are one third of the total housing stock and three quarters rented apartments and did not react on the initial economic effects of the pandemic at all, as rent increases are largely linked to the CPI.

MORTGAGE MARKET

In December 2021, the annual growth rate of housing loans to households rose to 6.9%. Long-term loans (with a maturity of more than 5 years) continued to be the main driver of housing loan growth, accounting for more than 95% of outstanding loans at the end of December 2021, although short-term loans recorded a stronger increase over the past few months as well. Conditions for housing loans remained favorable - in November 2021, interest rates on new housing loans stood at 1.20%, unchanged against 6 months earlier, but 19 bps lower than in February 2020 (before the onset of the pandemic). The total borrowing costs (interest and related charges), dropped by 22 bps over the same period.

The share of foreign currency loans decreased further over the second half of 2021, standing at 6.8% of all outstanding housing loans in November 2022, 1.6 pps lower than one year earlier. In the same period, the share of variable rate loans (with an initial rate fixation period of up to one year) in new housing loans remained more or less unchanged, amounting to 38.7% in November 2021. (for more details see Financial Stability Report 42, November 2021).

MORTGAGE FUNDING

According to data from the fourth quarter of 2021, 61.6 % of loans to nonbanks are secured by mortgages. Almost half of the loans to the corporate sector were granted to companies active in the real estate sector (construction, real estate and housing). More than half of the loans to the nonbank sector are used for financing real estate projects.

HOUSING POLICY

The key characteristic of housing policy is its focus on regulated rental housing and its financing tools. The Limited-Profit Housing sector continues to flourish, with 19,600 completed apartments in 2020 (2.2 units per 1,000 inhabitants), the highest number for 20 years. A new trend is seen in municipal housing, with Vienna reviving its own construction activities after more than 20 years of no new social housing construction. Initiatives to liberalize private rental markets have been postponed. Social housing supply follows a generalist eligibility approach with high income limits. Hence policy still promotes integrated rental markets.

Financing of affordable housing mainly relies on the housing subsidy schemes of Austrian Länder ("Wohnbauförderung"), which have spent approx. EUR 2.1 bn in new construction, refurbishment and housing allowances in 2020. In addition, the Federal State has increased its activities for decarbonisation of the housing stock substantially, with a budget of EUR 650 mn for the years 2021/22. Other tools, such as tax subsidies, a minimum income scheme, subsidies on financing products or for green investments, play a subsidiary role. The financing system of the "Wohnbauförderung" gains its efficiency through the close interaction with the system of limited profit housing construction and tailor-made capital market financing instruments. Altogether, public expenditure on housing is at around 0.5% of GDP, which is one of the lowest shares in EU comparison. Nevertheless, outputs are quite remarkable, taking quantity and quality of housing, affordability, aspects of social integration and progress in housing decarbonisation.

The existing focus on housing decarbonisation both with financing tools of the "Länder" and the Federal State has been accelerating as a result of the war in Ukraine. Oil heating in new construction is prohibited since 2020, and gas heating will probably be banned from 2023. Moreover, around 40% of apartments with fossil heating shall switch to renewable alternatives by 2040.

The COVID19 Act from April 2020 also included housing policy measures, amongst them a temporary ban of evictions for non-payment of rents, and the deferment of prosecution for defaulting on utility payments. Similar to the GFC of 2008/09, subsidies and limited-profit housing worked as a shock absorber during the pandemic. Housing policy remains a key issue in the current political landscape, and will like remain a cornerstone of the future public policies, given the ample support from different political options.

	AUSTRIA 2020	AUSTRIA 2021	EU 27 2021
MACROECONOMIC VARIABLES			
Real GDP growth (%) (1)	-6.7	4.8	5.4
Unemployment Rate (LSF), annual average (%) (1)	5.4	6.2	7.0
HICP inflation (%) (1)	1.4	2.8	3.0
HOUSING MARKET			
Owner occupation rate (%) (1)	55.3	54.2	70.0
Gross Fixed Investment in Housing (annual change)(1)	1.6	1.7	6.6
Building Permits (2015=100) (2)	119.1	108.0	134.0
House Price Index – country (2015=100) (2)	132.4	148.0	145.2*
House Price Index – capital (2015=100) (2)	124.1	137.5	146.1*
Nominal house price growth (%) (2)	7.0	11.8	10.3*
MORTGAGE MARKET			
Outstanding Residential Loans (mn EUR) (2)	125,528	136,157	6,508,621
Outstanding Residential Loans per capita over 18 (EUR) (2)	17,059	18,428	17,782
Outstanding Residential Loans to disposable income ratio (%) (2)	53.3	57.5	62.8*
Gross residential lending, annual growth (%) (2)	24.5	-2.3	12.2
Typical mortgage rate, annual average (%) (2)	1.3	1.2	2.0

* Please note that this value is the simple average of the available values in 2021.

Sources:
(1) Eurostat
(2) European Mortgage Federation - Hypostat 2022, 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 Oesterreichische Nationalbank's 2014 Financial Stability Report, the average LTV of private households is around 60% (based on survey data).
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?	Mortgage funding in Austria is mainly deposit-based. According to the IMF covered bonds only made up 7.1% of the outstanding mortgages in 2008, meanwhile securitisation as a way of funding is even less popular making up only 3.1%.
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?	Government housing subsidies accounted for 0.6% of the GDP in 2018. The subsidy scheme of the "Länder" predominantly supports supply side. i.e. low interest loans, grants and guarantees to housing developers, mostly Limited Profit Housing Associations. They provide rental, rent to buy and a small share of affordable owner-occupied apartments. Additionally, refurbishment is subsidized and housing allowances are granted.

Belgium

By Zoë Delhaye and Frans Meel, Union Professionnelle du Crédit (Febelfin)

IN A NUTSHELL

- → Real GDP up 6.2%.
- → Inflation of 6.6% at the end of 2021.
- → Employment rate of 70.3%.
- → Median prices up 8.3% for terraced or semi-detached houses and 7% for detached houses.
- → Nearly 270,000 mortgages approved in 2021 (excluding refinancing), with a total value of almost EUR 41.5 bn.

MACROECONOMIC OVERVIEW

Despite the alternating periods of tighter and more relaxed measures associated with the pandemic (such as furlough, support measures for companies and the local industry, to name a few), real GDP increased by 6.2%, one of the largest rises since the Second World War. This increase, which meant that Belgium's growth rate was 0.9% higher than the average for the euro zone (5.3%), may be linked in particular to the public support provided to households and businesses during the health crisis.

Domestic demand was the main driver of the recovery, rising by 6.5%. Personal consumption, which is regarded as the first component to recover rose by 6.3%, after falling by 8.2% in 2020. Following the climb in energy prices, inflation reached 6.6% at the end of the year compared with 0.4% in 2020 and 3.2% in 2021.

In addition, the employment rate among people aged 20 to 64 almost recovered to its pre-crisis level, reaching 70.3%.

HOUSING MARKET

The pandemic crisis and the abolition of the "housing bonus" (a regional tax reduction on mortgages to buy, renovate or build a dwelling, in the Flemish region from 1 January 2020), reduced activity in the housing market in 2020. The first three quarters of 2021 were therefore marked by an uptick in the number of transactions of 36.2% compared to the same period of the previous year. In total, the first three quarters of 2021 saw an increase of 9.2% compared to the first three quarters of 2019.

In addition, falling mortgage interest rates, low rates of return on saving accounts and other financial products, which encouraged consumers and investors to invest in real estate, and the rising cost of building materials pushed up house prices. According to the National Bank of Belgium, there was an expansion of the housing stock in 2021, which suggests that the soaring house prices were due to demand-related factors.

The median price for a terrace house or semi-detached house is EUR 235,000 and EUR 337,000 for a detached house. The Brussels-Capital Region is the most expensive, where terraced and semi-detached houses cost on average EUR 455,000. The average price of detached houses is EUR 1.15 mn. The Walloon region is the least expensive with a median price of EUR 165,000 for terraced and semi-detached houses and EUR 273,000 for detached houses. Finally, prices in the Flemish Region fall between these two extremes: terraced and semi-detached houses cost EUR 265,000, detached houses EUR 370,000. Compared to 2020, median prices of closed (or terraced) and semi-closed (or semi-detached) houses have increased by 8.3%, open houses by 7%. (Statbel).

The result was a deterioration in housing affordability.

MORTGAGE MARKET

According to figures from the federation of the Belgian financial sector (Febelfin), mortgage approvals showed a complete recovery from the pandemic, almost equalling the level of the record year 2019.

The number of mortgage applications (excluding those for refinancing) rose by 11.5% compared to 2020, and was barely 0.5% below the record level of 2019. The value of mortgage applications was 19% higher than in 2020, but also higher than in 2019: 410,000 applications were submitted amounting to a total value of more than EUR 71 bn.

In total, nearly 270,000 mortgages were approved in 2021 (excluding refinancing), with a total value of almost EUR 41.5 bn. The number of mortgage approvals thus rose more than 15% compared with 2020, but was nearly 13% lower than the record year 2019. The combined value of these mortgages was 24% higher than in 2020 and barely 0.7% lower than 2019.

Compared to 2020, the increase in the number of mortgages approved occurred across all categories. The most significant increases were for construction loans (+34.5%), home purchase loans (+14%) and home renovation loans (+12.5%). The number of home conversion loans (+1.4%) and mortgages for other purposes (+11%) showed less marked increases.

Comparison with the record year 2019 reveals a more nuanced picture, with a fall in the number of mortgage approvals across all categories. The downturn was around 16.5% for home purchase loans and around 12% for construction loans. For home renovation loans and home conversion loans, the contraction was around 8%.

Compared to 2020, there was also a strong rise in total loan value, to almost the same level as the record year 2019. Compared to 2020, this increase was 44% for construction loans and 19% for home purchase loans. There was an increase of

+7% for home conversion loans and +37% for renovation loans.

In 2021, the number of external refinancing operations (+13%) again rose compared to 2020. Almost 42,500 external refinancing operations were recorded, with a total value of more than EUR 5.5 bn.

In 2021, more than 9 out of 10 borrowers opted for a fixed interest rate or a variable interest rate with an initial 10-year fixed rate.

Following the stricter prudential rules set by the National Bank of Belgium since the end of 2019, an overall improvement in the quality of mortgages is observable: just 9% of new loans for the borrower's own home (excluding first-time buyers) had an LTV ratio of more than 90%, compared to 33% in 2018.

	BELGIUM 2020	BELGIUM 2021	EU 27 2021
MACROECONOMIC VARIABLES			
Real GDP growth (%) (1)	-5.7	6.2	5.4
Unemployment Rate (LSF), annual average (%) (1)	5.6	6.3	7.0
HICP inflation (%) (1)	0.4	3.2	3.0
HOUSING MARKET			
Owner occupation rate (%) (1)	71.1	71.3	70.0
Gross Fixed Investment in Housing (annual change)(1)	-7.2	8.5	6.6
Building Permits (2015=100) (2)	119.7	125.1	134.0
House Price Index – country (2015=100) (2)	121.1	131.5	145.2*
House Price Index – capital (2015=100) (2)	121.9	126.4	146.1*
Nominal house price growth (%) (2)	1.4	8.6	10.3*
MORTGAGE MARKET			
Outstanding Residential Loans (mn EUR) (2)	275,378	291,948	6,508,621
Outstanding Residential Loans per capita over 18 (EUR) (2)	29,925	31,618	17,782
Outstanding Residential Loans to disposable income ratio (%) (2)	97.9	100.3	62.8*
Gross residential lending, annual growth (%) (2)	-17.6	26.1	12.2
Typical mortgage rate, annual average (%) (2)	1.6	1.5	2.0

* Please note that this value is the simple average of the available values in 2021.

Sources:
(1) Eurostat
(2) European Mortgage Federation - Hypostat 2022, 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 96.2% • Insurance companies: 1.0% • Other types of lenders: 2.8% N.B.: These figures do not take into account the social credit lenders. However, their market share is rather low.
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 94.9% • Insurance companies: 1.3% • Other types of lenders: 3.8%
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 the first half of 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%. However, the number of new mortgage loans with a maturity of over 25 years further decreased.
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 2021. 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 12,500 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 2022, the registration tax amounts to only 6% on the first slice of EUR 174,000 in case of small properties in some cities and on the first slice of EUR 163,125 in more rural areas. The tax on that slices is even lowered to 5% in case of social mortgage credit. In the **Brussels region**, the normal registration duty amounts to 12.5% of the purchase price. However, buyers can benefit from an "abattement" (= exemption on which the buyer is not required to pay registration duties) on the first slice of EUR 175,000. This exemption is only applicable to properties of under EUR 500,000 and provided that it concerns the buyer's own and only home as his main residence. There is also a registration duty on the amount of the mortgage loan covered by a mortgage registration.
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 175,000) to buyers purchasing their own and only home as their main residence. The **federal state** still provides a tax reduction if one buys a second house : a deduction of up to EUR 1,520 (tax relief of 40%) is still possible.

Bulgaria

By Petar Ivanov, Tsvetkova Bebov Komarevski, member of Eversheds Sutherland

IN A NUTSHELL

- → The economy began a steady recovery from the pandemic-induced crisis, which resulted in a GDP increase of 4.2%.
- → The conflict in Ukraine and the resulting disruption of energy and raw material supply is expected to dampen the economic recovery in 2022 and has already resulted to a significant rise in inflation.
- → The mortgage market continued to grow rapidly throughout 2021 and the first months of 2022, fuelled by record-low interest rates and rising inflation, amid a steady rise in housing prices and a drop in supply.
- → Two new acts of legislation aim at improving conditions for the issuance of securitisations and covered bonds.
- → The Bulgarian National Recovery and Resilience Plan will create new opportunities for homeowners to improve the energy efficiency of their buildings.

MACROECONOMIC OVERVIEW

The economy recovered from the economic shock caused by the pandemic. The projected GDP increase is 4.2% (to BGN 132,7 bn) compared to 2020, which remains 0.4% below the 2019 GDP level. This compares to an EU average GDP growth rate of 5.4% (5.4% in the Eurozone) and an EU average decrease of 0.8% (1.3% in the Eurozone) compared to 2019.

The recovery was supported mainly by strong private consumption and increased government spending, partly due to government policies targeted at providing public support to economic sectors and individuals affected by the pandemic. Increased government spending resulted in a fiscal deficit of 4.1% (4.0% in 2020 and fiscal surplus of 2% in 2019), which is below the EU average deficit of 4.7% (5.1% deficit in the Eurozone).

Unemployment fell by 0.8% to 5.3% in 2021, which is significantly lower that the EU average of 7% (7.7% in the Eurozone). Average wages continued their growth throughout 2021 and increased by 12% compared to 2020 and 21% compared to 2019. Inflation increased from 1.2% in December 2020 to 2.8% in December 2021.

LOOKING AHEAD

The overall favourable economic outlook at the end of 2021 abruptly changed in the first months of 2022 following Russia's invasion of Ukraine in late February 2022 and the imposition of sanctions on and by Russia, which further disrupted raw material and energy supplies across Central and Eastern Europe.

Bulgaria, which relies on imports from Russia for most of its gas and oil needs, was particularly affected by these events and saw a significant rise in energy and petrol prices, which was intensified after gas supplies from Russia were suspended in the end of April 2022. The conflict in Ukraine also created uncertainty for the construction sector, which traditionally purchases steel and other construction materials from Ukraine and Russia and had to seek alternative suppliers at higher prices.

Accordingly, the European Commission, in its spring economic forecast for Bulgaria, decreased the country's expected GDP growth for 2022 from 3.7% to 2.1% (2.7% in the EU and the Eurozone) and projected a significant increase of inflation to 11.9% (6.8% in the EU and 6.1% in the Eurozone). As of May 2022, inflation stood at 13.4%.

Despite the conflict, in the first quarter of 2022 house prices continued to grow with a year-on-year increase of 11.4%. The rise of inflation coupled with historically low interest rates also pushed the demand for housing loans, the volume of newly issued housing loans continued to increase year-on-year in the first five months of 2022. Interest rates on housing loans in BGN decreased to a historic low of 2.54% in May 2022, while interest rates on EUR denominated loans slightly increased compared to the first months of 2022 to 3.10%.

It remains to be seen whether the momentum of the Bulgarian mortgage and housing market will be dampened by the deteriorating macroeconomic conditions, rising uncertainty, and the likely further increase of home prices as 2022 progresses.

HOUSING MARKETS

2021 was a year of post-COVID recovery for the Bulgarian housing market. The year saw a significant increase in activity with 7,047 issued building permits (5,860 in 2020) the largest number of new building permits issued in Bulgaria since 2008 (10,157). Housing starts also increased to 5,084 in 2021 compared to 4,116 in the previous year. The gradual weakening of anti-pandemic measures supported a further increase in the completion rate of new residential buildings from 3,376 in 2020 to 3,898. These developments contributed to a 37% increase in the volume of new gross residential lending from BGN 3.9bn (ca. EUR 2bn) in 2020 to BGN 5.4bn (ca. EUR 2.8bn).

Against this background average house price levels increased by 8.7% y-o-y to a 2021 average of 149.3 (2015 = 100). The housing market continues to show regional differences, with the South-east having roughly 30% lower average price increases than the country wide increase,, which is likely a result of the cooling down of the very active housing market on Bulgaria's southern Black Sea coast before and around 2015. At the opposite end is the capital – Sofia, where the HPI is nearly 13% higher than the national average and increased from an average for the year of 152.17 (2015=100) in 2020 to 168.27 in 2021. Similar trends are also observed in Plovdiv – Bulgaria's second city (nearly 8% growth y-o-y to an average of 160 in 2021) with a more moderate growth around the country average in the other largest cities. These discrepancies are explained by the fact that the larger cities (and their suburban metropolitan areas) continue to be the most desired places to live.

The main driver of rising prices is the ever-growing demand for housing, which has resulted in a tightening on the supply side of the market. Other factors, such as the higher average wages in large cities – for instance, the average wage in Sofia was 36% higher than the nation-wide average for 2021 – also contribute to differing price increases.

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

MORTGAGE MARKET

MARKET DYNAMICS

The mortgage market has had a decade of sustained growth in lending volumes and lowering of interest rates on residential mortgage loans. This process started in 2010 with a slow recovery following its crash from 2008/2009 as a result of the global economic crisis of 2008.

2021 marked the peak of this growth period as the market grew by 15% to a total outstanding amount of residential mortgage loans of BGN 15.8 bn (ca. EUR 8.1 bn). The amount of new gross mortgage lending has grown with an even higher pace – 37% compared with 2020. Interest rates on mortgage loans followed the trend from the preceding years and decreased to an annual average of 2.71% for BGN denominated loans (2.88% in 2020) and 3.27% for loans in EUR (3.52% in 2020). Although these figures remain above the EU average, they are well below the levels reached on the Bulgarian mortgage market a decade ago in 2009 (10.09% for loans in BGN and 8.59% for loans in EUR).

Floating interest rates remain the most popular for new loans (nearly 98%), with the large majority of loans being BGN denominated (91% of all outstanding loans and 96% of new loans) despite the country's declared goal of joining the Eurozone in 2024. The maximum maturity term for new mortgage loans in the country is 35 years with an average of 20 – 25 years. The typical amount borrowed on new loans ranges between BGN 100,000 – BGN 140,000 (ca. EUR 51,000 – EUR 71,600) with an LTV of 70% - 80%, which is comparable with pre-COVID figures.

The increased demand for housing loans in 2021 can be attributed to the favourable market conditions – low interest rates and higher inflation – and the desire to convert savings into a housing investment, which is perceived by domestic borrowers as more secure amid concerns over the post-pandemic economic recovery.

Housing NPL levels continued to decrease in 2021 to 3.6% (BGN 573m) of all outstanding mortgage loans (5.5% (BGN 727m) in 2020).

On the supply side, credit standards for households for house purchases in 2021 remained relatively relaxed with view of the overall positive macroeconomic outlook at the end of the year.

NON-MARKET LED INITIATIVES AND FURTHER IMPORTANT EVOLUTION

The gradual phasing out of most anti-pandemic measures in 2021 resulted in robust growth of the domestic mortgage market. With most of the economy fully reopened for business, average wages increasing and interest rates consistently falling, prospective homeowners were encouraged to enter the mortgage loan market.

The potential adverse effects of the pandemic on existing borrowers has been successfully held back by the private moratorium on loan repayments initiated by the Association of Banks in Bulgaria (the sectorial body of the local banking sector) under the auspices of the Bulgarian National Bank, which allows borrowers affected by the economic fallout of the pandemic to reschedule loan repayments for a period of up to 9 months. This moratorium scheme follows guidelines on the capital treatment of payments moratoria issued by the European Banking Authority in April 2020 and is aimed at preventing the large-scale requalification of credit exposures from performing to non-performing as a result of the short-term effects of the pandemic. As of December 2021, when the scheme expired, loans extended to Bulgarian households (incl. consumer and mortgage loans) in the gross amount of BGN 1.77bn (ca. EUR 905m) have successfully been included in the scheme. Following the moratorium's expiry the NPL levels continued to decrease.

MORTGAGE FUNDING

Bank funding in Bulgaria is dominated by deposits. As at the end of 2020, the Bulgarian banking sector has accumulated BGN 115bn (ca. EUR 59 bn) in deposits (2020 – BGN 105.7 bn), which compares to 87% of Bulgaria's projected 2021 GDP and 85% of the banking system's assets. Household deposits account for BGN 68.1 bn (EUR 34.8 bn) or 59% of the total amount, followed by deposits of non-financial entities – BGN 34.4 bn (EUR 17.6 bn) or 30%, and deposits of financial entities – BGN 9.9 bn (EUR 5 bn) or 8.6%.

This dominance of deposit funding is mainly due to the well-established preference of households and non-financial entities to invest their funds in bank deposits but is also probably a consequence of the underdevelopment of the Bulgarian capital market. The growth in deposits is also a result of the improvement of the macroeconomic environment and 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 product 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, 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 modernisation efforts on the wholesale funding of Bulgarian banks will be.

GREEN FUNDING

The Bulgarian 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 Bulgarian Ministry of Regional Development and Public Works. The total funds dedicated to the Program amount to 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 of 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 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 mn (EUR 123 mn) in the period 2022 - 2025.

	BULGARIA 2020	BULGARIA 2021	EU 27 2021
MACROECONOMIC VARIABLES			
Real GDP growth (%) (1)	-4.4	4.2	5.4
Unemployment Rate (LSF), annual average (%) (1)	5.1	5.3	7.0
HICP inflation (%) (1)	1.2	2.8	3.0
HOUSING MARKET			
Owner occupation rate (%) (1)	84.3	84.9	70.0
Gross Fixed Investment in Housing (annual change)(1)	0.7	-11.0	6.6
Building Permits (2015=100) (2)	33.9	41.0	134.0
House Price Index – country (2015=100) (2)	129.7	135.6	145.2*
House Price Index – capital (2015=100) (2)	133.6	140.3	146.1*
Nominal house price growth (%) (2)	0.9	4.5	10.3*
MORTGAGE MARKET			
Outstanding Residential Loans (mn EUR) (2)	7,031	8,086	6,508,621
Outstanding Residential Loans per capita over 18 (EUR) (2)	1,220	1,412	17,782
Outstanding Residential Loans to disposable income ratio (%) (2)	n/a	n/a	62.8*
Gross residential lending, annual growth (%) (2)	12.3	37.4	12.2
Typical mortgage rate, annual average (%) (2)	3.5	3.3	2.0

* Please note that this value is the simple average of the available values in 2021.

Sources:
(1) Eurostat
(2) European Mortgage Federation - Hypostat 2022, 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 Raiffeisenbank Bulgaria (RBB)*, Central Cooperative Bank (CCB) and Allianz Bank Bulgaria (Allianz). *RBB is in the process of being acquired by UBB.
What is the market share of new mortgage issuances between these entities?	From 31.12.2020 to 31.12.2021 the total nominal (principal) value of residential mortgage loans issued by Bulgarian banks has increased by BGN* 2.06 bn from BGN 13.75 bn to BGN 15.81 bn. The 8 most active banks on the Bulgarian residential mortgage loan market account for around 92.87% of this increase – UCB (18.9%), DSK (17.91%), Eurobank (14.5%), RBB (14%), CCB (9.88%),UBB (7.64%), Allianz (5.7%), FIB (4.33%). * 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* 15,81bn. The 8 banks mentioned above form BGN 15.13 bn (ca. 95.7%) of this amount, of which DSK holds BGN 3.78 bn (ca. 23.92%), UCB – BGN 2.76 bn (ca. 17.46%), Eurobank – BGN 2.54 bn (ca. 16.06%), RBB – BGN 1.86 bn (ca. 11.74%), UBB – BGN 1.73 bn (ca. 10.92%), FIB – BGN 1 bn (ca. 6.7%), CCB – BGN 841 mn (ca. 5.32%), Allianz – BGN 618 mn (ca. 3.91%). * EUR 1 = BGN 1.95583
What is the typical LTV ratio on residential mortgage loans in your country?	The average LTV ratio is 70% - 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 between BGN 100,000 and BGN 140,000, with BGN 120,000 being cited as market average for 2021. Interest rates have been decreasing over the last years. In December 2021 the average interest rates on BGN denominated housing loans is 2.62%.
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.
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 Leonardo Mancini, European Mortgage Federation – European Covered Bond Council

IN A NUTSHELL

- → There was an economic recovery with GDP growing by 10.2%, unemployment at 7.6%, inflation rising to 2.7% and a rating upgrade.
- → House prices rose by 7.3%.
- → Number of permits increased by 7.3%.
- → A government-subsidised housing loans programme, which has been extended until 2023 has already helped 4,559 people (out of 4,739 applications) buy houses, The programme is targeted at younger buyers, with an average age of 32 years and loan amount of EUR 75,000.
- → Croatia introduced a Reconstruction of Building initiative and drafted a Long-term Strategy for National Building Stock Renovation to increase the rate of renovation and reconstruction of the building stock.

MACROECONOMIC OVERVIEW

In December 2020, Fitch upgraded Croatia's Long-Term Foreign-Currency Rating to an all time high of BBB, with Positive Outlook. Standard & Poor's credit rating of BBB- with stable outlook remains and Moody's rates Croatia is Ba2 with positive outlook. The rating agencies claim that adoption of the euro will benefit Croatia's credit profile.

After contracting by 8% in 2020, the economy recovered by 10.2% in 2021, almost twice the European Union average of 5.4%, reaching a GDP level of ca EUR 57.2 bn. The main contributor to this was exports of goods and services. The unemployment rate increased slightly to 7.6% in 2021 from 7.5% in 2020.

In July 2020 Croatia joined the Exchange Rate Mechanism and the Croatian National Bank (CNB) established a close cooperation framework with the European Central Bank. In light of this, the central rate of the Croatian kuna was set at 7.5345 HRK per 1 EUR with a standard fluctuation band of ±15%.

Government debt decreased from 81.3% of GDP in 2020 to 79.8% in 2021, returning to the downward trend in. In 2021 the currency (HRK) registered an average annual exchange rate of about 7.5284 HRK per 1 EUR.

The average annual inflation rate increased from 0.0% in 2020 to 2.7% in 2021, breaking the relatively stable period since 2017, and reaching the highest level since 2013. The Croatian government put forward a set of new fiscal measures to contain the effects of the pandemic, amounting to almost 8% GDP. These measures included employment subsidies and shortened working hours schemes. Additionally, the national government drafted the 'National Recovery and Resilience Plan' (NRRP) from 2021 to 2023, which consists of 146 investments and 76 reforms endowed with EUR 6.3 bn worth of grants. This plan covers different areas such as public administration, justice and state assets; education, science and research; labour market and social protection; health etc., focusing mainly on the green and digital transitions.

HOUSING MARKETS

The average price per square meter in 2020 was HRK 13,713 (ca EUR 1,821), an increase of 7.8% from 2020. The calculation includes prices of new dwellings in the private market (HRK 13,843, ca EUR 1,838), as well as those constructed under the government "Publicly Subsidised Residential Construction Program" (HRK 7,642 on average, ca EUR 1,015).

In Zagreb, the average price of new dwellings per square meter was HRK 14,672 (ca EUR 1,950), around 4.7% more than 2020.

The nominal house price index (which considers new and existing dwellings together) increased by 7.3%, slightly more than Zagreb's nominal house price index, which increased by 7.2%. Whereas the Adriatic coast residential dwelling prices grew at a faster rate of 8.2%. It is important to highlight that the increasing trend for all urban areas in Croatia has been on going since 2015.

Despite the decrease in 2020, the number of building permits issued was 16.654 in 2021, a 7.3% increase. The expected value of works linked to these permits increased by 13.6% after a decrease of 2020. By types of constructions, 85.2% of permits were issued for buildings and 14.8% for civil engineering works. By types of works, 76.9% of permits were issued for new constructions and 23.1% for reconstruction.

MORTGAGE MARKETS

MARKET DYNAMICS

The Croatian National Bank (CNB) in 2021 adopted a macroprudential policy to maintain capital levels and increase resistance to possible losses by temporarily limiting dividend distribution. .

Bank assets (of which 90.6% are owned by foreign shareholders) accounted for 99.0% of the total assets of credit institutions, which increased in 2021 to a record high value of HRK 500.8 bn (ca EUR 66.5 bn) due to an increase in household and corporate deposits. Due to pandemic related uncertainty credit institutions were more risk averse resulting in an increase in liquid assets qualifying for Liquidity Coverage Ratio which rose to an aggregate 202.5%, over 20% more than in 2020. The total capital ratio of all credit institutions averaged 25.6%. The share of housing savings banks' assets continued to decrease and amounted to the remaining 1.0%.

The growth of optimism and favourable financial conditions, supported by an expansive monetary policy, facilitated the lending activity of banks, primarily in the retail segment. Loans to households grew the most: from 2.1% at the

end of 2020 to 4.5% at the end of 2021.
Interest rates on new loans to companies and households mostly continued to fall during 2021. New loans to companies were at an all time low average of 1.3%. But the average interest rate on new retail loans increased from 3.6% at the end of 2020 to 3.9% at the end of 2021, mainly due to the financing structure of this sector, which was helped by the subsidy program.

The NPL ratio which continued to improve to 4.3% from 7.1% in 2020, although still worse than the EU average. NPLs decreased for non-financial companies and households and sales of some non-performing loans also helped the ratio improvement.

NON-MARKET LED INITIATIVES

Over the last four years, two major legislative changes have influenced the mortgage market. First, the introduction of the Subsidised Housing Loans Act, and second, the reduction in real estate transfer tax.

In 2017, the Government introduced the subsidised housing loan programme, for which Croatian citizens under 45 years old may get a subsidy to buy a house up to a maximum of EUR 1,500 per square meter or a total of EUR 100,000 (equivalent). The loan repayment period must be at least 15 years. This is to support the regeneration and reconstruction of society, by incentivising young people not to leave the country. In 2021 4,599 out of 4,739 applications were approved. The average loan under the scheme was for EUR 75,000 and the average borrower 35 years old. The scheme will continue until 31 December 2023.

In 2019, the real estate transfer tax was reduced from 4% to 3%. This is a second reduction in recent years, it was cut from 5% in 2017.

MORTGAGE FUNDING

According to the Croatian National Bank Annual Report for 2021, retail deposits grew. Due to low interest rates, deposits are undergoing a structural change: shifting from term to on demand deposits. A covered bond law was introduced for the first time in April 2022.

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. This was boosted by the earthquake in 2020 which caused considerable damage; EUR 600 mn out of the total of EUR allocated to building renovation, are for earthquake damaged buildings including their energy renovation. In addition to them, other EUR 134 mn are allocated to energy renovation of buildings not affected by earthquakes.

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. on the use of buildings. Many energy renovation projects were implemented in the period 2014-2020, and the recorded rate of renovation of the building stock was 0.7% or 1.35 mn m²/year.

In the period leading up to 2030, the aim is to increase this rate 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.

To achieve the strategic goals of reducing energy consumption in buildings, three key energy programs are foreseen for the 2021-2030 period targeting apartment buildings, family houses and public buildings.

	CROATIA 2020	CROATIA 2021	EU 27 2021
MACROECONOMIC VARIABLES			
Real GDP growth (%) (1)	-8.1	10.2	5.4
Unemployment Rate (LSF), annual average (%) (1)	7.5	7.6	7.0
HICP inflation (%) (1)	0.0	2.7	3.0
HOUSING MARKET			
Owner occupation rate (%) (1)	91.3	90.5	70.0
Gross Fixed Investment in Housing (annual change)(1)	n/a	n/a	6.6
Building Permits (2015=100) (2)	202.6	239.6	134.0
House Price Index – country (2015=100) (2)	130.4	139.9	145.2*
House Price Index – capital (2015=100) (2)	142.5	152.7	146.1*
Nominal house price growth (%) (2)	7.7	7.3	10.3*
MORTGAGE MARKET			
Outstanding Residential Loans (mn EUR) (2)	8,233	9,016	6,508,621
Outstanding Residential Loans per capita over 18 (EUR) (2)	2,450	2,696	17,782
Outstanding Residential Loans to disposable income ratio (%) (2)	n/a	n/a	62.8*
Gross residential lending, annual growth (%) (2)	37.3	0.3	12.2
Typical mortgage rate, annual average (%) (2)	2.9	2.7	2.0

* Please note that this value is the simple average of the available values in 2021.

Sources:
(1) Eurostat
(2) European Mortgage Federation - Hypostat 2022, 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%, even though there is been a substantial share of new loans had a loan-to-value (LTV) ratio higher than 90 % in the first half of 2021.
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); 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 Subsidised Residential Construction Programme", 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 5.5%.
→ Recovery and resilience facility expected to boost investment levels.
→ House prices have continued to rise from the low post recession levels.
→ Bank liquidity remains good.

MACROECONOMIC OVERVIEW

The economy recovered swiftly, GDP increased by 5.5% to pre-pandemic levels, after dropping 5% in 2020. This was driven by all sectors including tourism, industry and construction. Unemployment dropped marginally to 7.5% from 7.6%. The harmonised index of consumer prices increased by 2.3% on average having accelerated in the second half of the year to an annualised rate of 3.9%. Cyprus will benefit from the EU's recovery and resilience facility and has already received pre-financing of EUR 157 mn in September 2021, following approval of the national recovery plan in July. The plan consists of EUR 1.2 bn, of which 41% funds green investments and 23% digital investments.

In the banking sector, non-performing loans continued to fall, the ratio to gross loans was 11.1% at year end.

The recovery in 2021 provided a significant increase in government revenue and drop in spending. The budget deficit narrowed to 1.7% of GDP from 5.8% in 2020, and the public debt to GDP ratio fell to 104% from 115% and remains on a downward trajectory.

Cyprus is affected by the Ukraine war and sanctions against Russia. Cyprus is a small and very open economy with a large services exports sector including tourism, shipping, and financial services. Russia was a significant tourism market for Cyprus and accounted for 20% of total arrivals in 2019, before the pandemic outbreak.

Cyprus' real GDP surprised for the upside, expanding by 6% in the first half of the year, and will likely exceed the European Commission's summer forecasts for 3.2% growth.

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. Ownership declined the most between 2013 and 2019, dropping by 6.1 pps to 67.9%. This is lower than the EU average of 69.8% and was the lowest among the peer group of southern European countries. In 2020 ownership rose to 68.6%.

New building construction, dropped from EUR 3.0 bn in 2008 to EUR 920 mn bn in 2014. Since then, it has to EUR 2.0 bn in 2018 and EUR 2.5 bn in 2019.

The construction sector started to recover in 2016. The share of the sector's value-added rose from 4.0% of GDP in 2015 to 6.3% in 2019 in nominal terms, dropped to 6.1% in 2020 and increased only marginally in 2021. In value terms gross output returned to about its 2019 level in 2021.

The recovery in the construction sector reflects the demand for housing and property prices. On a yearly basis, new sales peaked in 2007 at 21,245 but dropped by 82% by 2013. New sales rose steadily almost tripling (275%) by 2019 compared to 2013, but still less than half of the peak level. Sales dropped in 2020 and recovered in 2021 to their 2019 levels.

Prices, as measured by the Central Bank's residential property index, rose in 2017-21 by a cumulative 7.7% following a decline of 30.6% between 2008 and 2016. The increase in the period 2017-20 was driven by apartments (up 17.2% as opposed to houses which rose by 4.0%). Residential property price increases were greater in Limassol (up 14.0%) followed by Famagusta (up 7.9%), Larnaca (up 8.5%), Nicosia (up 3.8%) and Paphos (up 2.9%). In 2020, residential property prices increased by 1.5% on average, and in 2021 by 1.3%.

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 featured demand from locals, diplomats, and students.

The number of completed new dwellings in 2019 (latest available data) was 4,420 compared with 3,866 the year before and a peak of 18,195 in 2008. The total stock of dwellings at the end of 2019 was 460,000 having risen by 16.8% 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. This follows years of restructuring and deleveraging in the banking sector. Total outstanding loans for house purchase at the end of 2021 were EUR 8.4 bn, 35.8% 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 36% (from 24% in 2012) and as a share of all households loans to 72.8% (53.1% in2012). This indicates a higher degree of deleveraging in the period in non-mortgage loans.

New mortgage loans have been rising since 2015. Total new mortgage loans reached EUR 1.3 bn in 2021 compared with EUR 947 mn in the previous year.

Excluding renegotiated amounts, net new mortgage loans reached EUR 1.1 bn, 4.5% of GDP in 2021 from EUR 783 mn or 4.3% of GDP in 2020. New mortgage loans were also higher than in 2019 (EUR 972 mn, EUR 874 mn excluding renegotiated amounts).

Mortgage rates for new loans have been declining since 2008-09. The floating rate for up to one year for house purchase dropped from a yearly average of 5.97% in 2008 to 2.10% in 2020 before rising to 2.17% in 2021.

Loan performance of households and non-financial corporations deteriorated markedly in the aftermath of the recession from 2011 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. Bank of Cyprus has sold three additional packages of problem loans since 2019 in difficult market conditions and Hellenic Bank announced a significant transaction in April 2022. Whilst there are no separate statistics for the performance of mortgages themselves, the performance of household loans, more than half of which are mortgages, is indicative.

Non-performing exposures of the household sector have been declining steadily. At the end of 2021 they were EUR 1.6 bn (or 14.8% of gross loan)s compared with EUR 2.8 bn (23.7%) in 2020 and EUR 13.1 bn (52.3%) at the peak in early 2015. Mitigating this is a relatively high provisioning ratio of 36.3% at the end of 2021 and a high ratio of restructured facilities with the non-performing exposures of 41.9%.

NON-MARKET LED INITIATIVES

The property market in Cyprus is being affected by tax and legislative changes. Property tax payable 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 aid 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 to participate in the scheme have been approved will continue to benefit from the scheme in accordance with the restructuring of the relevant loan 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 programme expires at the end of the year and provides for an interest subsidy of 150 bps for the first four years of the loan.

MORTGAGE FUNDING

Bank funding in Cyprus is primarily from customer deposits. Funding conditions are comfortable as reflected in the gross loans (not including provisions), to deposits ratio at 58% at the end of 2021, from 65.9% at the end of 2020. Cypriot banks have access to ECB funding. The securitisation legislation which has been enacted in July 2018 provides an additional tool for banks to obtain funding.

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 2020	CYPRUS 2021	EU 27 2021
MACROECONOMIC VARIABLES			
Real GDP growth (%) (1)	-5.0	5.5	5.4
Unemployment Rate (LSF), annual average (%) (1)	7.6	7.5	7.0
HICP inflation (%) (1)	-1.1	2.3	3.0
HOUSING MARKET			
Owner occupation rate (%) (1)	68.6	68.6	70.0
Gross Fixed Investment in Housing (annual change)(1)	-5.9	-2.6	6.6
Building Permits (2015=100) (2)	140.1	162.8	134.0
House Price Index – country (2015=100) (2)	102.6	102.7	145.2*
House Price Index – capital (2015=100) (2)	102.7	102.2	146.1*
Nominal house price growth (%) (2)	0.7	0.0	10.3*
MORTGAGE MARKET			
Outstanding Residential Loans (mn EUR) (2)	8,649	8,385	6,508,621
Outstanding Residential Loans per capita over 18 (EUR) (2)	12,055	11,573	17,782
Outstanding Residential Loans to disposable income ratio (%) (2)	58.4	55.2	62.8*
Gross residential lending, annual growth (%) (2)	-10.4	43.1	12.2
Typical mortgage rate, annual average (%) (2)	2.1	2.2	2.0

* Please note that this value is the simple average of the available values in 2021.

Sources:
(1) Eurostat
(2) European Mortgage Federation - Hypostat 2022, 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

Czechia

By Martin Kotek, Czech Banking Association

IN A NUTSHELL

→ Volatile development of Czech economy - Consumer confidence improves as the economy restarts in the aftermath of the pandemic. However, scepticism takes over amid a slowdown in 2021.

→ Rising inflation forced the central bank to tighten monetary policy, leading to mortgage interest rate increases at the end of year.

→ Housing demand, low interest rates in the first half and expectations of their increase resulted in historically high housing loan sales.

→ House prices rose by 25%.

MACROECONOMIC OVERVIEW

The development of the economy was very volatile. In the first months of the year there was a new wave of the pandemic and limitations on economic life. In the second quarter the economy improved with the easing of restrictions and a gradual restart of business activity. However, the optimism did not last long and in the second half of the year the economy was hit hard by a shortage of production components, especially microchips. In addition raw materials were in short supply for most industries and construction.

The economy grew by 3.5%. Growth was supported particularly by final consumption spending. In the meantime, gross value added expanded, significantly driven by industry, trade, transport, accommodation and hospitality, and in the group of general government expenditure.

Household consumption grew rapidly after the easing of containment and social distancing measures in spring. Its quarter-on-quarter real growth was 7.4% in the second quarter. However, a drop in consumer confidence in autumn, relating to the sharp rise in energy prices and the potential return of risks related to the pandemic, caused consumption to slow.

The unemployment rate was 3.5% in December, half a percentage point lower over the year due to the domestic economic recovery.

The average inflation rate reached 3.8%, 0.6 percentage points more than in 2020. Throughout the year, the rate gradually increased from 2.2% in Q1 to 6.2% in Q4. The development of inflation was influenced by rising prices in the categories of transport, housing, alcoholic beverages, and tobacco. Industrial producer prices rose by 7.1% in 2021, while agricultural producer prices increased by 6.9%. Prices of materials and products used in construction increased by 10.9%.

The Czech National Bank first tightened monetary conditions in June of last year, raising its base repo rate from 0.25% to 0.5%. It continued to gradually tighten monetary policy with an increase of the repo rate to 3.75% in December.

The pandemic situation was also reflected in the government's budget, which ended 2021 with a deficit of CZK 419.7 bn (6.9% of GDP).

LOOKING AHEAD

Radical changes are expected in house financing market trend in 2022. The January – May period confirms this assumption. The mortgage market dropped by 25% in Q1 2022 and close to 50% year to year expected in Q2 (considering the exceptionally high sales figures in 2021Q2), given the significant increase of interest rates, which approach 6%- the highest rate in the last decade, and three times the rate in Q2 2021.

This growth is driven by an increase of the base rate by the central bank, amid the fight against growing inflation. The inflation rate exceeded 15% in the beginning of 2022Q2 and there is no expectation of a decrease in following months. The high interest rate environment is the main factor that will influence the mortgage market in 2022.

In addition, since 1 April 2022,the central bank implements again regulations on DTI and DSTI. These regulations, together with high interest rates and rapidly growing household expenditures due to inflation, will decrease the accessibility of house financing.

Despite this drop in housing finance, real estate prices are not expected to decrease, but rather slow it's pace of growth.

HOUSING MARKETS

The situation of the housing market did not change since last year. Significantly higher demand than the real estate supply has been a characteristic feature of the Czech real estate market over recent years. The number of housing starts slightly increased, but generally residential dwelling supply was quite limited. Against the backdrop of housing shortages and accelerating inflation during the second half of the year, prices increased at an accelerated pace by year end – they rose by 25% year on year. Prices growth concerned all regions and all types of housing, both old and new construction. Prices of new construction were influenced by growth in the cost of construction materials, energy and transport.

Due to decreasing accessibility of housing financing and thus housing ownership, there was rising demand for rental housing which is a new trend in the Czech housing market.

MORTGAGE MARKETS

MARKET DYNAMICS

The upward trend of 2020 continued in 2021, as residential mortgage lending achieved historically highest figures again. New sales of mortgages (new loans origination) increased by 60% y-o-y. Compared to 2019, total sales doubled. These record results were driven by a combination of factors. Firstly, low interest rates which were the main driver behind the production peak in Q2. This period was also influenced by the overall economic restart and growing consumer confidence. In a low interest rate environment, the purchase of real estate was seen as an investment opportunity, providing regular rental income despite growing house prices.

The second half of the year was different. Interest rates started to increase, with base rates of the Czech National Bank increasing to combat inflation.. In these changing conditions, mortgage demand remained high. For reasons including an expectation of further interest rate growth, accelerated demand for residential credit, and due to growing housing prices, real estate investment was perceived as the way to protect household savings from inflation. Growing real estate prices also led to an increase in average loan sizes.

When market interest rates increased especially in the last quarter lenders reduced their margins to not immediately reflect the rise in mortgage interest rates. Market competition increased and mortgages were provided on barely profitable terms. Banks expected a market readjustment in following months and tried to gain market share.

In last quarter of 2021, the Czech National Bank announced measures to regulate the market – namely, the reinstatement of income-related indicators DTI (Debt to Income) and DSTI (Debt Service to Income) and a tightened maximum LTV – effective since April 2022. These changes were communicated in the media as the reason for the deterioration of finance accessibility and became another drivers accelerating the market before they came to effectiveness.

NON-MARKET LED INITIATIVES

The DTI cap will be 8.5, for borrowers younger than 36 or 9.5% otherwise, the DSTI cap will be 45% or 50% for younger people. Also LTV, which was capped at 80%, is relaxed for young people for whom a 90% cap applies. The easier rules for younger people is to improve housing accessibility for them.

Banks will be allowed to provide 5% of their mortgages under conditions that are not in-line with these limitations. This exceptional limit, however, will be strictly monitored.

	CZECHIA 2020	CZECHIA 2021	EU 27 2021
MACROECONOMIC VARIABLES			
Real GDP growth (%) (1)	-5.5	3.5	5.4
Unemployment Rate (LSF), annual average (%) (1)	2.6	2.8	7.0
HICP inflation (%) (1)	3.3	3.3	3.0
HOUSING MARKET			
Owner occupation rate (%) (1)	78.9	78.3	70.0
Gross Fixed Investment in Housing (annual change)(1)	3.8	-1.6	6.6
Building Permits (2015=100) (2)	109.9	117.7	134.0
House Price Index – country (2015=100) (2)	156.8	197.3	145.2*
House Price Index – capital (2015=100) (2)	n/a	n/a	146.1*
Nominal house price growth (%) (2)	9.0	25.8	10.3*
MORTGAGE MARKET			
Outstanding Residential Loans (mn EUR) (2)	51,174	60,632	6,508,621
Outstanding Residential Loans per capita over 18 (EUR) (2)	5,886	6,983	17,782
Outstanding Residential Loans to disposable income ratio (%) (2)	41.7	44.5	62.8*
Gross residential lending, annual growth (%) (2)	37.3	62.3	12.2
Typical mortgage rate, annual average (%) (2)	2.3	2.3	2.0

* Please note that this value is the simple average of the available values in 2021.

Sources:
(1) Eurostat
(2) European Mortgage Federation - Hypostat 2022, Statistical Tables.

CZECHIA FACT TABLE

Which entities can issue mortgage loans in your country?	In Czechia, housing finance is mainly raised by banks.
What is the market share of new mortgage issuances between these entities?	Banks represent almost 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 almost 75% of the mortgage loans outstanding volume in Czechia.
What is the typical LTV ratio on residential mortgage loans in your country?	The Recommendations of the Czech National Bank defines the maximum LTV on 90%. Typical mortgage loan is the loan with LTV 80 – 90%
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 2020 was the loan for house/flat purchase secured by financed property with interest rate fixation period 7–10 years and maturity 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?	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 are the following: 1. Fee for record of the ownership change and 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. • Support for establishing social housing for disadvantaged people due to their age or health

Denmark

By Sarah Kirsten Rystrand, Finance Denmark

IN A NUTSHELL

→ The economy grew by 4.9%, slightly below the EU average of 5.4%.
→ Housing markets were not materially affected by the pandemic.
→ Sales of houses and apartments increased sold and prices continued to increase.
→ Fixed rate mortgages are still preferred.

MACROECONOMIC OVERVIEW

The economy grew by 4.9% in real terms, more than double the rate that it contracted in 2020. The expansion was mainly driven by strong growth in exports and private consumption of goods and services which grew at 7.8%, and 4.2%, respectively. GDP growth was slightly below the European Union average which was 5.3%. This is due to a big increase in imports, which grew by 8.2%. Also, consumer prices increased by 1.9% in 2021.

The employment rate rose by 2.4 pp. in 2021 to 76.5%. Unemployment fell 1.7 pp. in 2021 from 6.2 % in the first quarter to 4.5% in the fourth quarter. The average 2021 unemployment rate was 5.1%, down from 5.6% in 2020.

The government had a budget surplus of 3.0% of GDP. Gross government debt was 36.7% of GDP. This is low in a European context. The deposit rate at the Danish central bank, Danmarks Nationalbank, remained at -0.6% in the first two months of 2021, whereafter it increased to -0.5% from March to October and then it fell again to -0.6%.

HOUSING MARKETS

During the year nominal house prices increased by 11.8% (y-o-y), which is the highest increase since 2006. Prices have increased more in the capital, by year end prices of houses in Copenhagen were 19.7% higher than the year before, while prices on owner occupied apartments were 11.0% higher.

In total, 88.418 houses and owner-occupied flats were sold in 2021, 7.5% more than in 2020, and the highest since the indicator was first introduced. Both increasing housing prices and other developments in the real economy continued to stimulate the transaction activity in all parts of the country. The number of transactions involving detached and terraced houses is up by 8.3% in 2021, and 5.1% more owner occupied flats were sold.

Construction activity declined in 2021, and housing completions fell by 5.6% in 2021. New housing construction increased by 6.6% and number of building permits issued dropped 0.7% compared with 2020.

MORTGAGE MARKETS

MARKET DYNAMICS

By year end 2021, outstanding mortgage loans from mortgage banks amounted to DKK 3,075 bn (approximately EUR 413bn, of which app. DKK 1,831 bn (EUR 246 bn) was for owner occupied housing. In addition, housing loans for households from commercial retail banks amounted to DKK 264 bn (EUR 35 bn).
In total, mortgage credit grew by 4.0% in 2021. This is modest compared with the mid-2000's where growth rates were between 10% and 17%.

Mortgage lending activity repeated previous year development. Borrowers prefer fixed interest rates. Fixed rate mortgages (typically fixed for 30 years) accounted for 57.6% of gross lending in 2021, a decrease of 11.9 pps. compared to 2020. Adjustable-rate mortgages and interest reset mortgages accounted for 39.5%, and adjustable-rate mortgages with an interest rate cap accounted for 0.7% of gross lending in 2021. The interest rates on fixed mortgage loans continued at a historically low level in 2021 but increased by the end of the year. 30-year fixed rate mortgages were in the beginning of 2021 issued with a coupon 0.5% after which the coupon rate rose to 1,5% by the end of the year. The short-term interest rate to borrowers was on average 0.69% in 2021.

Residential lending activity was higher than 2020, but still much less than in 2019, when it reached its all-time high. Total gross lending was DKK 630.6 bn. Residential mortgages accounted for 66.5% of gross lending, 2.0 pps. higher than in 2020. Gross lending activity is down by 0.2% compared to 2020. The small decrease can be explained by a lower level of remortgaging. Loans with a value of approx. DKK 377 bn have been remortgaged in 2021, a decrease of approx. 13% compared to 2020.

Total outstanding loans by mortgage banks are fixed rate (47.6% by year end 2021), mortgages which reset in under 1 year (25.9% by year end) and which reset above 1 year (26.5% by year end), adjustable rate mortgages with an interest rate cap (1.7% share by year end).

Interest rates have been low for several years now a possible reason for borrowers preferring fixed rate or longer rate fixing periods are borrowers' expectations of future interest rate increases. Also, the possibility to fix the interest rate to 1.0% or 1.5% in 30 years and thereby knowing the total cost of the loan may incentivise borrowers to choose fixed rate mortgages.

ANY FURTHER IMPORTANT EVOLUTION

Activity on the housing market continued to be elevated and prices rose. Increasing prices were debated heavily in 2021, and whether is necessary to tighten rules regarding mortgage lending for certain mortgages, such as interest only mortgages, to avoid a situation like the GFC in the 2000's. Indeed, prices have been increasing, however, the increases are lower than during the years before the crisis. Also, the Danish economy and households are more robust today.

MORTGAGE FUNDING

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

The funding mix – for the main part bullet bonds or callable long-term bonds – adjusts continuously according to borrower demand. Bonds are tapped and bullet bonds behind interest reset loans are refinanced by month end in March, 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 2020	DENMARK 2021	EU 27 2021
MACROECONOMIC VARIABLES			
Real GDP growth (%) (1)	-2.0	4.9	5.4
Unemployment Rate (LSF), annual average (%) (1)	5.6	5.1	7.0
HICP inflation (%) (1)	0.3	1.9	3.0
HOUSING MARKET			
Owner occupation rate (%) (1)	59.3	59.2	70.0
Gross Fixed Investment in Housing (annual change)(1)	9.1	9.9	6.6
Building Permits (2015=100) (2)	99.9	130.7	134.0
House Price Index – country (2015=100) (2)	121.0	135.2	145.2*
House Price Index – capital (2015=100) (2)	134.1	160.8	146.1*
Nominal house price growth (%) (2)	4.3	11.7	10.3*
MORTGAGE MARKET			
Outstanding Residential Loans (mn EUR) (2)	270,820	281,740	6,508,621
Outstanding Residential Loans per capita over 18 (EUR) (2)	58,033	60,110	17,782
Outstanding Residential Loans to disposable income ratio (%) (2)	177.2	175.4	62.8*
Gross residential lending, annual growth (%) (2)	-25.0	3.2	12.2
Typical mortgage rate, annual average (%) (2)	0.7	0.7	2.0

* Please note that this value is the simple average of the available values in 2021.

Sources:
(1) Eurostat
(2) European Mortgage Federation - Hypostat 2022, 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 mn (EUR 134,000) with fixed rate the following apply: • Taxes going to state: Approximately DKK 17,000 (EUR 2,280); • Costs going to the Mortgage bank: Approximately DKK 10,000 (EUR 1,340).
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 Irina Markitanova and Kaire Husu, Luminor Group

IN A NUTSHELL

→ GDP grew by 8.3%, one of the strongest recoveries in Europe.

→ The mortgage market grew with outstanding housing increasing by 9.2%.

→ Housing prices continued to rise.

MACROECONOMIC OVERVIEW

The economy rebounded strongly from the pandemic, growing by 8.3%. Growth was fueled by expansion in trade, investments, private consumption and government policies. Private consumption was supported in the second half of the year by the reform of the second pension pillar that made participation voluntary and allowed people to withdraw money.

The recovery was broad-based. Unemployment averaged 6.2% for the year and reached 5.2% in the last quarter. Employment levels are high, but have not yet reached pre-pandemic peaks, leaving some room for increase in the activity rates especially among the young and the elderly. Wages increased by 6.8% as the labour market gained strength.

Consumer prices started to increase from the beginning of the year but increased more rapidly at the end of the year as electricity, gas prices increased. The average price level in 2021 was 4.5% higher than the year before but reflects only partially the price increase in the last month of the year.

The Government budget deficit declined compared to the 2020 levels, but public spending was still higher than income, so the deficit stood at 2.7% from the GDP. Government debt level is still among the lowest in Europe (18.1% GDP). Estonia also benefitted from the expansionary stance of the euro area monetary policy.

HOUSING MARKETS

Demand in the housing market increased in 2021 because of the sharp rise in confidence and the strong growth in income and savings. Activity was particularly evident in the secondary market for apartments, which is where the much of the money withdrawn from pension assets were spent.

Increasing demand pushed up prices for residential property at a fast pace. Data from Statistics Estonia show that the dwelling price index increased on average by 15.1%. Apartments were around 15% more expensive than a year earlier, and houses were up 16%. Prices rose faster in the secondary market for apartments in Tallinn.

In 2021, the Owner-Occupied Housing Price Index increased by 11% according to Statistics Estonia.

At the end of 2021, Estonia had a stock of 739,000 dwellings, compared to 730,000 in 2020 and 724,000 in 2019.

On the supply side, construction increased by 10% in 2021. The number of completed dwellings was 6,735 units a decline of 11% y-o-y. The majority (62%) of new dwellings are blocks of flats. The number of building permits issued decreased by 0.7% to 8,773. The number of transactions increased by 19.2% to 71,732.

MORTGAGE MARKETS

Increased activity in the real estate market and rising prices caused strong growth in housing loans. The mortgage market grew by 9.2% to EUR 9.4 bn, the highest level ever. This is equivalent to 31% of GDP. The average outstanding loan grew by 9.0% to EUR 49,902. Housing loans grew faster r than GDP or household incomes meaning that the debt burden of households increased.

Housing loans are offered in euros and have maturities up to 30 years. The average interest rate on new origination fell to an average value of 2.15% at the end of 2021 due to the tight competition between banks. Borrowers can ask up to 85% of a property value with a standard contact structure and up to 90% if they qualify for the housing guarantee programme 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 debt service-to-income (DSTI) requirement states that the ratio of 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. Around a quarter of all the new loans issued in the final quarter of 2021 had a DSTI in this range according to the Bank of Estonia.

There was also a small rise in the share of loans with a high loan-to-value (LTV) ratio due to the sharp rise in real estate prices, which made it harder for borrowers to save money for the down payment on a housing loan.

The mortgage market consists mainly of housing loans granted by commercial banks , which account for approximately 42% of the aggregate 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 2021. Only 0.1% of housing loans are overdue by more than 90 days at the end of 2021.

NON-MARKET LED INITIATIVES

Bank of Estonia macroprudential policies remained broadly unchanged. These measures are applied when necessary to prevent risks to the financial sector building and subsequently increase the resilience of the sector. The Bank of Estonia kept the requirements for issuing housing loans constant. The requirements setting the maximum loan-to-value (LTV) of 85%, debt service-to-income (DSTI) of 50% and a maximum maturity of 30 years have been in place since 2015. The Bank of Estonia requires the borrowing capacity of households to be assessed assuming an interest rate of at least 6%, thus reducing the risk from a possible rise in interest rates from the current low rate environment. 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: large, systemically important banks must maintain larger capital buffers (between 1% and 2%), the minimum risk weight for mortgages is subject to a floor and all banks must apply borrower-specific requirements before issuing housing loans.

No additional capital is required to be held for systemic risks apart from loans to residents of Lithuania which attract an additional 2%.

The Bank of Estonia has announced that it will require a 1% countercyclical capital buffer from December 2022 in order to set the buffer above zero as the amount of credit in the economy, relative to GDP is below the long term average. The Estonian banking sector remains well capitalised, above the required level, so the change in regulation is not expected to have any response currently from the banking sector.

MORTGAGE FUNDING

The lending policy of banks for housing loans did not change particularly in 2021. The most important source of funds for the Estonian banking sector continues to be deposits. As deposits have grown strongly in recent years, they have been sufficient to finance the demand for credit. The ratio of loans to deposits was 80% at the end of 2021.

The share of market-based funding remained constant. At the end of 2021 Estonian banks had EUR 850 mn covered bonds outstanding which were first issued in 2020.

	ESTONIA 2020	ESTONIA 2021	EU 27 2021
MACROECONOMIC VARIABLES			
Real GDP growth (%) (1)	-3.0	8.3	5.4
Unemployment Rate (LSF), annual average (%) (1)	6.8	6.2	7.0
HICP inflation (%) (1)	-0.6	4.5	3.0
HOUSING MARKET			
Owner occupation rate (%) (1)	81.4	81.6	70.0
Gross Fixed Investment in Housing (annual change)(1)	14.0	-7.7	6.6
Building Permits (2015=100) (2)	158.1	157.0	134.0
House Price Index – country (2015=100) (2)	84.8	97.6	145.2*
House Price Index – capital (2015=100) (2)	n/a	n/a	146.1*
Nominal house price growth (%) (2)	6.0	15.1	10.3*
MORTGAGE MARKET			
Outstanding Residential Loans (mn EUR) (2)	8,656	9,449	6,508,621
Outstanding Residential Loans per capita over 18 (EUR) (2)	8,075	8,816	17,782
Outstanding Residential Loans to disposable income ratio (%) (2)	55.5	57.3	62.8*
Gross residential lending, annual growth (%) (2)	-2.2	38.8	12.2
Typical mortgage rate, annual average (%) (2)	2.5	2.2	2.0

* Please note that this value is the simple average of the available values in 2021.

Sources:
(1) Eurostat
(2) European Mortgage Federation - Hypostat 2022, 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?	The mortgage market consists mainly of commercial banks. The four banks that issued most of the housing loans in 2021 were Swedbank, SEB Pank, LHV Pank and Coop Pank. Coop Pank increased its market share from 3% to 4%. The market shares of Swedbank, SEB Pank and LHV remained the same (45%, 29% and 9% respectively). Swedbank and SEB Pank remained the leaders in the market for housing loans. Luminor market share declined to 11%.
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 payments.

Finland

By Mariia Somerla, Finanssiala

IN A NUTSHELL

- → GDP grew by 3%, reversing the previous year's decline.
- → The banking sector's solid financial standing and sufficient liquidity reserves has allowed banks to offer customers flexible in loan servicing during the pandemic, which has helped the recovery from the crisis.
- → Outstanding mortgages increased by 4.1%, as the sectors continues to grant mortgages in the post-pandemic period.
- → Due to easy monetary policy, pandemic related increases in savings and the increased value of investments, many households have been able to purchase a new home.
- → Housing activity has increased during the pandemic but house prices have increased moderately.

MACROECONOMIC OVERVIEW

The economy grew with industrial production increasing and export outlook improved. Economic confidence was bolstered by vaccinations new stimulus measures and easy financing conditions.

The private sector's financial condition and sentiment were good, with bankruptcies unchanged, unemployment decreasing and increased house sales. The housing market was busy, and loans were taken out for both homes and holiday homes at a rapid pace in the summer.

In late 2021, however, the outlook deteriorated due to supply chain bottlenecks and rising prices. Several forecasters improved their economic forecasts on Finland's economic growth throughout the year.

According to Eurostat, GDP rose by 3% to reach its pre-pandemic level. The average employment rate was 72.3%, up from 70.7% in 2020. The average unemployment rate was 7.7% (compared to 7.8% in 2020), an average of 212,000.

HOUSING MARKET

Housing activity has remained busy during the pandemic but house prices have increased only moderately. Regional differences in housing prices remain large, and in some areas has diverged further. In many municipalities, housing prices have either remained level or continued to fall. According to Bloomberg Economics there is little evidence of a house price bubble.

The number of building permits granted and building starts grew significantly from the previous year. Construction of around 48,000 new dwellings was started, and just over 37,400 completed.

MORTGAGE MARKET

The banking sector has continued to grant loans to households as usual during the pandemic, which has been supported by labour mobility and remote working, for example. The pandemic has changed housing needs as people have increasingly worked from home. Due to easy monetary policy, pandemic related increases in savings and the increased value of investments,many households have been able to purchase a new home.

At end year,there were EUR 107.6 bn of housing loans outstanding, an increased of 4.1%. Buy-to-let mortgages were 8.1% of the total. At the end of December, consumer credit was EUR 16.8 bn and other loans EUR 17.9 bn. The interest expenses of housing loans continued to remain moderate.

At year end loans to housing corporations were EUR 39.5 bn. Finnish limited liability housing companies have certain unique characteristics that are reflected in the statistics. In international statistics, Finland's housing corporation loans are included in corporate loans, but in national statistics, corporate loans and housing company loans are separate so increased construction does not have the same effect on the corporate loan portfolio as it does elsewhere.

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 corporation forms of housing units, 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.

At the end of 2021, the average interest rate was 0.78% in housing loans and 0.91% in buy-to-let mortgages.

MORTGAGE FUNDING

Banking sector's liquidity improved, average liquidity coverage ratio (LCR) was 177% at yearend (171% in 2020), due to total liquid assets of EUR 154 bn, more than half of which were central bank reserves, the highest quality, i.e. level 1 assets.

When the pandemic spread, LCR ratios and reserves grew rapidly throughout Europe as banks prepared for an increase in the demand of corporate loans and other potential liquidity needs.

The banking sector's net stable funding ratio (NSFR) was 117% at the end of the year above the 100% requirement but below the EU average. Banks' available stable funding (EUR 50.6 bn) surpassed the requirement by EUR 74 bn.

The substantial increase in central bank funding increased the asset encumbrance (AE) ratio of European banks. In Finland, the 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 2021, the AE ratio stood at 29.3% (29.8% in 2020), roughly the EU average.

Banks have prepared for a reversal of pandemic related increase in e deposits when consumption normalises and corporate investment recovers. Strong liquidity buffers, relatively diverse and decentralised funding sourcesand low market funding costs made possible by a solid capital position protect banks from risks such a decline in deposit funding. A relatively small share of Finnish banks' funding consists of central bank funding, which reduces the refinancing risk at the maturity of these funding schemes.The banking sector has offered customers flexibility of loan repayment and new loans during the pandemic which has helped the recovery.

	FINLAND 2020	FINLAND 2021	EU 27 2021
MACROECONOMIC VARIABLES			
Real GDP growth (%) (1)	-2.2	3.0	5.4
Unemployment Rate (LSF), annual average (%) (1)	7.8	7.7	7.0
HICP inflation (%) (1)	0.4	2.1	3.0
HOUSING MARKET			
Owner occupation rate (%) (1)	70.7	70.3	70.0
Gross Fixed Investment in Housing (annual change)(1)	-3.2	5.8	6.6
Building Permits (2015=100) (2)	124.9	140.7	134.0
House Price Index – country (2015=100) (2)	105.1	109.1	145.2*
House Price Index – capital (2015=100) (2)	132.5	140.7	146.1*
Nominal house price growth (%) (2)	1.2	3.8	10.3*
MORTGAGE MARKET			
Outstanding Residential Loans (mn EUR) (2)	103,610	107,759	6,508,621
Outstanding Residential Loans per capita over 18 (EUR) (2)	23,147	23,988	17,782
Outstanding Residential Loans to disposable income ratio (%) (2)	74.3	76.4	62.8*
Gross residential lending, annual growth (%) (2)	13.0	-14.8	12.2
Typical mortgage rate, annual average (%) (2)	0.7	0.8	2.0

* Please note that this value is the simple average of the available values in 2021.

Sources:
(1) Eurostat
(2) European Mortgage Federation - Hypostat 2022, 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 10 % (in 2021).

France

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

IN A NUTSHELL

- House prices grew by 6.7% (for existing homes), much more than in 2020 outside Paris region.
- House sales reached a new peak in existing dwellings and individual houses. Sales by real estate developers (mostly flats) were still below pre-pandemic levels.
- New home loan origination continued to grow (+16% vs. 2020) despite the gradual application of the HCSF recommendation on lending criteria which became legally binding on January 1st, 2022.
- Home loan average interest rates fell to a historical low of 1.10%, the average maturity reached a new record of 21.7 years, supporting the purchasing power of households eroded by restricted lending criteria and rising prices.
- Volumes of renovations continued to increase considerably with existing houses being affected from next year by regulatory constraints targeting the most energy-intensive homes.

MACRO-ECONOMIC OVERVIEW

The economy grew strongly, with GDP rising by 6.8%. Reversing the 7.8% fall in the previous year due to the pandemic, the GDP returned to its pre-pandemic level in Q3, one quarter earlier than expected. The labour market was very resilient with unemployment falling to 7.9% (its annual lowest level since the Great Recession of 2008) and an employment rate (of 15-64 years old) reaching its highest level since 1975 at 67.2%, boosted by the higher employment of younger and elderly workers. Business failures were at a new historical low level (27,540 units), down by 12% compared to 2020 (and 46% lower than in 2019).

Despite the third lockdown between April and May 2021, the economy was powered by household consumption and corporate investment. Household demand was supported by the preservation of the purchasing power of their Gross Disposable Income (+2.3% in 2021 vs. +0.2% in 2020). Corporate activity was supported by exceptional measures taken by the government and the ECB to counter the shock. Due to supply problems at the restart of economic activity, inflation (HICP) was 2.1% in 2021 (vs. 0.5% in 2020). Pressures on prices increased in the second half the year mainly due to energy prices. As is typical after a crisis, the saving rate's return to normal has been very slow, from 21% in 2020 to 18.7% in 2021 (compared to around 15% before the pandemic).

LOOKING AHEAD

The French economy, as other countries in Europe, could transition to an environment of stagflation - lower growth and high inflation - over a longer period than initially expected and a comparatively less favourable lending environment. According to forecasts from Banque de France at the end of June 2022, GDP growth is expected to be at 2.3% in 2022, with an annual inflation rate (IPCH) at 5.6%. The saving rate is expected to stay near 16.5% in 2022, taking more time to converge to its pre-pandemic level due to numerous uncertainties including inflation. The expected decline in household purchasing power (-0.8% in 2022) could generate a slowdown in the growth of household consumption (+2.9% in 2022), notably in durable goods.

New loan origination is expected to remain constant in 2022 but could diminish at least by 10% in 2023. Housing transactions began to decrease slightly in the first half of 2022 and housing prices remained at a historical high level but are expected to decrease slightly in 2023). Activity will be influenced by the increase in ECB rates started in July 2022, which will increase interest rates for home loans and reduce housing purchasing power of households. Therefore, the annual growth of outstanding residential loans might fall by between 2% and 3% at the end of 2023 (vs. +7% in 2021 and around +5% anticipated at the end of 2022).

Increased energy prices linked to the geopolitical tensions could reinforce the attractiveness of energy-efficient homes and support household demand for renovation. The higher importance of energy performance criteria should reorient a part of the housing demand and add a new factor curbing the upward trend of house prices.

HOUSING MARKETS

The housing stock was 37.2 mn units in 2021, 550 houses for every 1,000 inhabitants. It is 82% main residences (the Paris region alone representing 18% of main residence in France), 10% second homes and 8% vacant. Home ownership was 58% (a share stable since 2010), with a share of homeowners with no repayment charges (that is, with no home loan to reimburse) at 38%. 56% of households live in an individual house (79% of owners occupied of their main residence and 25% of tenants).

Sales of existing dwellings reached an annual all-time high of 1,18 mn, up 15% from 2020, representing 82% of the whole transactions in 2021. The average annual price of existing homes increased by 6.7% (vs. +5.6% in 2020), with higher increases in the provinces (+7.9%) than in Paris region (+3.7%) for the first time since 2005. Changes in demand are shown by the strong rise in house prices (+8%) compared to +4.9% for flats on the same period. A real slowdown in flat prices occurred in Paris region "Ile-de-France" (+2.2%). Paris city prices were stable in 2021 (vs. +7% in 2020), whereas flats' prices in provincial France benefited from the development of teleworking (+7.3%, of which +7.1% for Marseille and +4.7% for Lyon).

After a terrible year for real estate developers, 2021 was marked by an increase in newly built home sales of 16% (118,226 units) and available for sale homes of 20% (104,539 units). But volumes were still below their pre-pandemic levels, respectively by 10% and 9%. The shock of the pandemic exacerbated structural difficulties in the building sector, calling into question its ability to meet the needs of households. The stock of home for sale decreased to 94,346 units at the end of 2021 (vs. 98,064 a year before), its lowest level since 2012 (around 9.5 months of average sale). The rise in the average price increased to 13.3% for new houses (average sale price of EUR 331,579) and to 2.6% for new flats (average sale price of EUR 4,424 per square meter).

Despite the pandemic, building activity remained above its previous low points. The number of housing permits (468.400 units) increased by +19%, with individual houses increasing by 27% and collective housing by 15%. The implementation of the new energy regulation "RE2020" on January 1st 2022 accelerated levels of housing permits at the end of 2021. However, the number of permits for flats (213,700 units) decreased by -7% compared to 2019, while ones for individual houses were 17% higher and recorded 158,300 units (their highest volumes since 2011). The number of houses started (391,800 units) grew 12%, by less than the increase in permits. Compared to 2019, collective housing starts (193,800 units) fell by 2% and represented 51% of the total housing starts in 2021.

MORTGAGE MARKETS

MARKET DYNAMICS

Due to the number of sales (an historic peak of 1,434,826, +16% vs. 2020) and price rises (+7% vs. 2020), new home loans for households increased by 8.5% to EUR 273.7 bn. Excluding loan transfers and renegotiations, new loans reached a new high of EUR 224.8 bn, up by 16.5% compared to the previous year. Renegotiated loans amounted to EUR 49.2 bn, decreasing by 17% and representing 17.9% of the total new home loans (-5.7 pps over on year). 77% of loans were for main residence purchase and 33% of the total production were for first-time buyers. Outstanding home loans was annually up by 6.8% at the end of 2021.

As in 2020, the market was supported by very low interest rates and longer initial maturities. Average interest rates fell to a new historic low, from 1.19% in January to 1.07% in December. Meanwhile, the average maturity increased to a new record at 21.7 years (+2.4 months vs. 2020), more than 65% of the production had a maturity between 20-25 years, and 6.8% beyond 25 years (-3.9 pps vs. 2020). The average LTV at origination in 2021 fell to 82.9% (-0.8 pp vs. 2020) and the share of new loans with LTV higher than 100% declined by 3.7 pps to 23.9%. Moreover, the average DSTI at origination reduced to 30.1% (-0.5 pp vs. 2020).

Lending criteria continued to improve, notably linked to the gradual implementation of the HCSF recommendation updated in December 2020, which attempted to limit the DSTI at 35% of disposable income and maturities at 25 years. However, HCSF allowed banks to originate up to 20% of their loans each quarter with a DSTI and/or a maturity above these levels, 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 this context of a dynamic activity, well monitored by the Banque de France and the ACPR, risks attached to home loans remain low: defaults over 12 months represented 0.36% of the home loans outstanding in Q4 2021 and the NPL ratio remained limited at 1.09% at the end of 2021 (+ 3 bps vs. 2020). 99% of new home loans originated in 2021 are at a fixed rate and 97% of the outstanding are back by some form of security.

NON-MARKET LED INITIATIVES

During 2021, the progressive enforcement of the updated HCSF recommendation reduced the volume of loans not meeting these rules from 28.8% of new loans in Q1 2021 to 16.8% in Q4 2021 (within the flexibility margin authorised by HCSF). The share of loans with a non-compliant DSTI went from 23.5% in Q1 20221 to 15.8% in Q4 2021, and the share of loans with a non-compliant maturity fell from 7.3% to 1.5% over the same period. In 2021, the home loan market as a whole did not seem to have suffered from the follow-up of the HCSF recommendation.

Various regulations concerning energy transition may have encouraged owners of less efficient homes to sell their homes in 2021, before being required to undertake renovations. As of August 2022, it will be not possible to increase the rent of a house with an Energy Performance Certificate (EPC) "F" or "G" (which is 20% of the private rental stock according to the Ministry of energy transition as of January 2022). From January 2023, it will be impossible to rent the most energy-consuming homes (1.8% of the private rental stock). From January 2025, this will affect all homes with an EPC "G" (8.5% of the private rental stock), and then from January 2028 will also affect homes with an EPC "F" (11.4% of the private rental stock). This has encouraged households to carry out renovation works (of which EUR 15.4 bn of home loans according to Banque de France, up by 15% vs. 2020).

ANY FURTHER IMPORTANT EVOLUTION

If the share of new home loans for rental investment with a DSTI ratio above 35% fell from 40% of the production for this type of home loans at the beginning of 2020 to 20% at the end of 2021, volumes remained dynamic in 2021 (16.5% of the whole production vs. 16.2% in 2020). But the strict application of the HCSF rules when they became legally blinding in January 2022 could particularly affect this sector compared to others.

As ECB rates increase, the application of the usury law will limit the rate of increase of home loans and could exclude some households (specifically first-time buyers) for whom interest rate of their home loan application would exceed the usury rate. A rate is considered usurious when it exceeds the APCR (Annual Percentage Rate of Charge) of the previous quarter by 33%. To limit restrictions on loan origination and ensure access to credit for households, banks could partially curtail activity with real estate brokers to lower the cost of credit for households while limiting the drop in their margin.

MORTGAGE FUNDING

As home loans are mainly distributed by retail banks, they are mostly funded by deposits. The amount of private customers deposits reached EUR 2.66 bn at the end of December 2021 (+6% compared to 2020; after +15% in 2020 vs. 2019), 67% were for households and 33% for non-financial corporations. Despite the re-opening of stores and fewer constraints on travel and consumption than in 2020, households continued to accumulate savings, notably sight deposits (+9% compared to 2020, at EUR 628 bn) and increased their use of consumer loans (+2.9% of new consumer loans vs. 2020, at EUR 211.7 bn).

According to S&P, French banks have since 2020 the largest covered bond issuers in Europe, with over EUR 22.8 bn of gross issuance in 2021 (29.5% of European total), as a consequence of the increased recourse by European banks to other sources of financing, such as central bank refinancing operations. Concerning mortgage funding, the total amount of the French covered bond stock stood at EUR 178.7 bn at the end of 2021, equal to 15% of the outstanding home loans, with new issuances annually amounted to EUR 17.7 bn (equal to 8% of the 2021 production of new home loans).

Outstanding RMBS was EUR 86 bn as of Q4 2021, compared to EUR 81.3 bn on year prior, marking an yearly increase of almost 6%. Total RMBS issuance, in turn, was EUR 12.3 bn, following an increase of 2% compared to 2020's EUR 12 bn end year value.

GREEN FUNDING

The government's recovery plan in 2021 provided EUR 2 bn for private housing and EUR 500 mn for social housing, to support energy transition. Energy renovation works eligible for a reduced rate of VAT (for existing dwellings) amounted to EUR 14.6 bn, an increase of 34% compared with 2020.

The major support is from a public financial aid called "MaPrimRenov'", available for all owners of a main residence (self-occupied or rented) and for co-ownership properties. 763,020 cases were submitted in 2021 (vs. 192,343 in 2020), for 86% of cases started during the year and for 48% completed renovation works at the end of the year. Most of the renovation works (76% in volume for 85% of energy savings) concerned in 2021 the heating and domestic hot water; insulation of walls, roofs or attics represented 14% of energy savings (double the share compared to 2020). In 2021, the gains were higher in areas of the south-west of France, in the north of Nouvelle-Aquitaine and of Occitanie, in Bretagne and in the north/north-east of France. The weaker gains were in areas of the Mediterranean coast and to a lesser extent in some areas with a larger share of the affluent population (Paris, a part of Paris region, Rhône and the Alps).

To renovate a home, the various public financial aid schemes 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 professionals in existing homes used as a main residence. In 2021, 61,034 "Eco-PTZ" loans were granted, rising in unit by 45% and in amount by 44% compared to the previous year.

	FRANCE 2020	FRANCE 2021	EU 27 2021
MACROECONOMIC VARIABLES			
Real GDP growth (%) (1)	-7.8	6.8	5.4
Unemployment Rate (LSF), annual average (%) (1)	8.0	7.9	7.0
HICP inflation (%) (1)	0.5	2.1	3.0
HOUSING MARKET			
Owner occupation rate (%) (1)	64.0	64.0	70.0
Gross Fixed Investment in Housing (annual change)(1)	-12.2	14.8	6.6
Building Permits (2015=100) (2)	96.9	115.4	134.0
House Price Index – country (2015=100) (2)	116.8	124.6	145.2*
House Price Index – capital (2015=100) (2)	134.3	134.3	146.1*
Nominal house price growth (%) (2)	5.6	6.7	10.3*
MORTGAGE MARKET			
Outstanding Residential Loans (mn EUR) (2)	1,136,990	1,214,582	6,508,621
Outstanding Residential Loans per capita over 18 (EUR) (2)	21,542	22,839	17,782
Outstanding Residential Loans to disposable income ratio (%) (2)	73.4	75.5	62.8*
Gross residential lending, annual growth (%) (2)	2.4	8.4	12.2
Typical mortgage rate, annual average (%) (2)	1.3	1.1	2.0

* Please note that this value is the simple average of the available values in 2021.

Sources:
(1) Eurostat
(2) European Mortgage Federation - Hypostat 2022, Statistical Tables.

FRANCE FACT TABLE

Which entities can issue mortgage loans in your country?	Today, about 380 credit institutions (including banks, mutual banks, municipal credit banks and special credit institutions) are approved by the French supervisory authority (ACPR), and listed in the register of financial officers (REGAFI).
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 in 2020-2021 (62.7% vs 65.3% in 2020); • Private banks, whose market share rebounded close to its pre-pandemic level of 2019 (37.1% in 2021 vs 34.2% in 2020 and 38.1% in 2019) ; • Specialised institutions with a market share near zero in 2021 (0.2% vs 0.5% in 2020).
Which entities hold what proportion of outstanding mortgage loans in your country?	Six groups and their subsidiaries (3 Mutual, 1 Public and 2 Private) represent most of the lending. 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 2021, the average LTV ratio was 83.3%, down from 84.4% in 2020 of the average cost of the operation
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 2021, 99.4% of the new credits were fixed-rate loans. More than 60% of loans are not with a registered mortgage, but are guaranteed by an insurance or a collateral provided by a specialized financial institution.
What is the typical/ average maturity for a mortgage in your country?	In 2021, the average maturity of real estate loans (excluding renegotiated loans, loan transfers and credit consolidation) was 21.7 years slight 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 on book ones) 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 fees; • 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, depending on: • the area (four areas are defined by law, according to the local real estate market situation: more or less stretched); • the household composition and income. Several other schemes exist to support low-income buyers (PSLA: renting with option to buy or a new form of community land and trust). Several incentives have been eliminated (APL, Epargne Logement), while zero-percent loans have been significantly reduced.

Germany

By Thomas Hofer, vdp

IN A NUTSHELL

→ Gross domestic product rose by 2.9%, less than originally expected.

→ Stable household incomes and favourable financing conditions, made investment in housing attractive for private households.

→ Gross residential lending and the volume of loans outstanding increased further.

→ Significantly higher mortgage interest rates in 2022 make housing less affordable and are likely to reduce demand for new residential loans.

MACROECONOMIC OVERVIEW

The effects of the pandemic influenced the economy in 2021, so the recovery was more muted than expected. Economic growth slowed in Q4 and Q1 2022 because of renewed intensification of pandemic-related protective measures to contain new virus variants and the associated supply bottlenecks. Real gross domestic product (GDP) in Germany grew by 2.9%, it is still below the pre-pandemic level despite a strong recovery in the summer.

Overall, the labour market recovered quite well from the pandemic-related impairments. Although the unemployment rate increased from 3.2% to 3.8% during 2020, it recovered in the course of 2021, standing at 3.6% on average for the whole year. The number of people in employment again increased slightly to around 45.1 mn (+0.6%).

Supply chain problems, rising energy prices and special factors such as the temporary reduction in VAT in 2020 meant that inflation reached a record high (since 1992) in the second half of the year and became the number one economic issue. Consumer price pressures have become increasingly entrenched over the course of 2022, causing a turnaround in monetary policy and changing capital market conditions, which are reflected in significantly higher interest rates for mortgage loans.

HOUSING MARKET

Prices of residential properties increased also in 2021. The vdp property price index for single family houses rose by 11.2% and for condominiums by 11.7%. The index for owner occupied housing, which is based on these two indices, increased by 11.3% overall and in the 7 largest cities (Berlin, Hamburg, Munich, Cologne, Frankfurt a.M., Stuttgart and Düsseldorf) by 9.8%.

Demand for housing continues to outstrip supply in many cities and regions, and in many places the pandemic may have caused demand for housing to rise further. In addition, the population has risen steadily over the past ten years, partly due to immigration. At the same time, the average number of persons per household is shrinking and per capita living space is increasing. Higher energy efficiency requirements, complex regulations for new buildings, and the subsidy to support families building or purchasing homes that expired in March 2021 are likely to have additionally driven prices. Due to ongoing capacity bottlenecks in the construction industry, lengthy planning and approval procedures, and scarce building land, excess demand remains. Accordingly, construction services and building land, and consequently real estate, are becoming more expensive.

Construction has been affected by material shortages and sharply increased prices, particularly for steel and wood. In addition, the cold weather in January and February and the withdrawal of the VAT cut initially had a negative impact on production. In 2021, 293,000 dwellings were completed in Germany, 4.2% or 13,000 less than in the previous year. Completions of both single-family houses and multi-family residential buildings decreased compared to the previous year. In contrast, building permits have continued to rise. At 381,000, the number of building permits rose by 3.3% and was still significantly higher than building completions. This has resulted in a surplus of approved but not yet completed dwellings of 846,000.

The number of transactions of existing properties remained almost unchanged. In total, 600,000 single-and two-family houses, multi-family houses and condominiums changed owners in 2021, just as many as in the year 2020. The turnover in money terms rose due to increasing prices.

The continued increase in the demand for residential properties despite the severe crisis was due not least to the stabilisation of household incomes as a result of government measures. The high savings that many households built up during this period are likely to have additionally boosted demand. In addition, the labour market has recently recovered well and favourable interest rates continued to keep owner-occupied housing, which is growing in importance for retirement provision, attractive.

MORTGAGE MARKET

The strong demand for residential real estate was reflected in lending. In 2021, gross residential lending rose to EUR 299.6 bn (+11.1% y-o-y) and the volume of loans outstanding rose to EUR 1.74 tn, an increase of +7.1%.

In 2021, the Association of German Pfandbrief Banks conducted a new survey on the structure of residential property financing among its member banks[1] following up on surveys that have been conducted for many years. It shows that house prices have risen faster than net household incomes since 2015. As interest rates for housing loans have declined over a long period, home ownership has remained affordable for broad groups of the population. Nevertheless, since 2019 price increases have no longer been offset by more favourable financing conditions, making it increasingly difficult for first time buyers to form home ownership.

The study also showed that borrowers and banks continued to put safety first. The total maturity of the loans remained the same. The average LTV ratio in 2021 was 80%, the DSTI ratio 25%. This means that both indicators declined slightly compared with the previous study from 2019. Borrowers also increased the time period for fixed interest rates from an average of 10 to 14 years between 2009 and 2021.

[1] https://www.pfandbrief.de/site/dam/jcr:10611f1d-67f9-4d80-8086-506d1fca4270/vdp_Spotlight_Residential_Property_Finance_EN.pdf

Financing conditions were favourable in 2021. The interest rate (effective interest rate, averaged across all interest rate fixed periods) for loans for house purchases remained low, averaging 1.26%, mainly due to favourable refinancing conditions. The ECB's purchases of short- and long-term securities have significantly reduced capital market interest rates. Because of the recent sharp rise in consumer prices the ECB is tightening its monetary policy: scaling back securities purchases and increasing interest rates. This is already noticeably impacting financing conditions in spring 2022 - interest rates for mortgage loans have recently risen significantly and are currently at their highest level since 2014.

Due to long-term fixed interest rates and high amortisation, hardly any impact is expected on existing loans. In new lending, however, debt-financed purchases will become significantly more expensive. The affordability of home ownership will decline accordingly, and with it (loan) demand.

MORTGAGE FUNDING

In Germany, banks' main funding instrument 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. Both segments, Mortgage Pfandbriefe and Public Sector Pfandbriefe, increased in volume outstanding as Pfandbriefe worth nearly EUR 65 bn were issued (2020: EUR 60 bn). At the same time, the primary market continued to be strongly affected by the pandemic and ECB measures. Thus, slightly less than half of the issued Pfandbriefe were retained and used as collateral for ECB liquidity at very favourable refinancing conditions.

2021 Mortgage Pfandbrief issuance was EUR 46 bn (EUR 41 bn in 2020), Public Sector Pfandbrief issuance was EUR 18 bn (2020: EUR 19 bn) and Ship Pfandbriefe accounted for EUR 0.6 bn. Therefore, the outstanding volume of Pfandbriefe increased to EUR 391 bn (EUR 372 bn in 2020). Outstanding Mortgage Pfandbriefe increased from EUR 246 bn to EUR 264 bn and Public Pfandbriefe increased slightly from EUR 123 bn to EUR 125 bn The remainder is accounted for Ship Pfandbriefe (EUR 2.1 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[2]. 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[3].

The 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 2021 the amount of outstanding Green and Social Pfandbriefe was EUR 9 bn by six issuers.

	GERMANY 2020	GERMANY 2021	EU 27 2021
MACROECONOMIC VARIABLES			
Real GDP growth (%) (1)	-4.6	2.9	5.4
Unemployment Rate (LSF), annual average (%) (1)	3.8	3.6	7.0
HICP inflation (%) (1)	0.4	3.2	3.0
HOUSING MARKET			
Owner occupation rate (%) (1)	50.5	49.5	70.0
Gross Fixed Investment in Housing (annual change)(1)	3.4	0.7	6.6
Building Permits (2015=100) (2)	117.6	121.5	134.0
House Price Index – country (2015=100) (2)	138.5	154.1	145.2*
House Price Index – aggregate seven largest cities*** (2015=100) (2)	144.1	158.2	146.1*
Nominal house price growth (%) (2)	7.4	11.3	10.3*
MORTGAGE MARKET			
Outstanding Residential Loans (mn EUR) (2)	1,629,423	1,744,433	6,508,621
Outstanding Residential Loans per capita over 18 (EUR) (2)	23,449	25,132	17,782
Outstanding Residential Loans to disposable income ratio (%) (2)	75.1	78.7	62.8*
Gross residential lending, annual growth (%) (2)	10.1	11.1	12.2
Typical mortgage rate, annual average (%) (2)	1.3	1.3	2.0

* Please note that this value is the simple average of the available values in 2021.

Sources:
(1) Eurostat
(2) European Mortgage Federation - Hypostat 2022, Statistical Tables.

[2] https://www.pfandbrief.de/site/en/vdp/sustainable_finance0/sustainable_pfandbrief/green-pfandbrief.html
[3] https://www.pfandbrief.de/site/en/vdp/sustainable_finance0/sustainable_pfandbrief/social_Pfandbriefe.html

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?	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?	In 2018 a grant scheme to support families building or purchasing homes for their own use has been introduced. With the so called "Baukindergeld" the government promotes families with children who want to buy a house or a condominium for their own use with EUR 12,000 per child, paid out in 10 annual instalments of EUR 1,200 each. In order to receive the promotion, certain conditions must be met: • There are children under the age of 18 living in the household, • The household income is a maximum of EUR 90,000 per year for one child plus EUR 15,000 for each additional child, • The purchase contract or the building permit has been signed or received between 01.01.2018 and 31.03.2021, • The new home is the only residential property on the cut-off date. The program follows the Home Ownership Allowance, with which the government supported the creation of home ownership between 1995 and 2005. Besides that, the German states (Bundesländer) support home ownership within the scope of publicly assisted housing. Depending on the policy and cash balance of each State, several programmes are offered. The KfW Förderbank (KfW promotional bank) offers promotional programmes for housing construction or modernisation and for first-time buyers.

Greece

By Calliope Akantziliotou[1], Bank of Greece | Reviewed by Evangelia Papapetrou, Bank of Greece

IN A NUTSHELL

→ Real GDP[2] grew by 8.3% after a sharp decline in 2020 (-9.0%).

→ In the housing market, prices continued to rise at an accelerated pace; the price of apartments rose by 7.4%, against 4.5% in 2020.

→ In the commercial property segment, prime retail rose by 2.1% against 2.6% in 2020 and prime offices by 1.8% (1.2% in 2020).

→ The total stock of outstanding housing loans declined by 3.0% against 2.7% in 2020, a rate which in April 2022 remained unchanged (-3.0%).

MACROECONOMIC OVERVIEW

Economic activity returned to growth and real GDP rose by 8.3% - offsetting almost entirely the sharp pandemic decline of 9.0% in 2020 - mainly due to the strong growth in exports of goods and services, rising gross fixed capital formation and the recovery in investment and private consumption. In particular high growth rates were recorded in exports of goods and services (21.9%), imports of goods and services (16.1%) and private consumption (7.8%), after the contractions recorded in 2020 of -21.5%, -7.6% and -7.9%, respectively. Gross fixed capital formation rebounded in 2021 by 19.6% against a marginal drop in 2020 (-0.3%). Tourism activity increased in 2021 after a sharp drop in 2020[3]. The labor market remained favorable, and unemployment rate fell to 14.7% from 16.3% in 2020.

In Q1 2022, GDP (seasonally adjusted) increased by 7.0%, y-o-y, mainly due to the strong growth in private consumption (11.6%) and exports of goods and services (9.6%), rising gross fixed capital formation (12.7%) as well as to base effect compared to Q1 2021 (-1.7%).

The economic outlook remains positive, albeit the increased uncertainty due to higher-than-expected inflation, increased energy costs, the conflict in Ukraine, disturbances in the supply of goods, energy and technology products and ongoing COVID-19 related issues, moderate the initial expectations of economic activity growth of 3.8% in 2022.[4] According to the Bank of Greece estimates,[5] real GDP is projected to continue growing in 2022 although at a slower growth rate of approximately 3.2% in the baseline scenario and 1.8% in the adverse scenario, depending on the extent of the deterioration of the economic climate. Economic activity in the second half of 2022 is expected to be supported by the projects of the EU-funded Recovery and Resilience Plan (initially started in 2021), the strong growth in exports of goods and the partial rebound of tourism revenues.

Residential investment[6] accelerated further by 26.5% (2020: 14.6%), whereas investment in total construction accelerated for a second year but at a slower pace than residential (2021: 10.6%, 2020: 3.7%). The difference was mainly due to investment in "other" construction (non-residential and civil engineering) which grew by 4.8% in 2021 and only marginally in 2020 (0.2%). In Q1 2022, investment in construction (seasonally adjusted data) increased by 16.7%, y-o-y.

Employment[7] increased in 2021 by 1.4% - reversing the decrease by 0.9% in 2020 - mainly due to the reopening of the economy and the fiscal related support measures. The unemployment rate continued to decline, to 14.7% against 16.3% in 2020 and 17.3% in 2019. However, the difference from the European average remains large. Long-term unemployment (12 months and above) decreased to 62.6% of the unemployed compared to 66.5% in 2020.

Following a fall in 2020 (-1.3%), inflation (HICP)[8] was in negative territory in H1 2021, but started increasing in H2. Overall, it reached 0.6%. The increase is mainly due to energy (12.4%) and food prices (1.2%). This trend has accelerated in the first five months of 2022, mainly due to larger increases in food and energy prices. Core inflation has also increased, albeit to a lesser extent. The conflict in Ukraine and COVID-related supply-chain backlogs and shortages also have an impact on these rising inflationary pressures. In May 2022, inflation rose steeply to 10.1%, y-o-y, a rate that has not been seen since 1995, with energy being the largest contributor (59.0%). In 2022, inflation pressures are expected to continue, and starting to reduce during 2023-2024 as energy and food price components in inflation are expected to moderate.

In 2021, there was a primary fiscal deficit of 5% of GDP. According to the Stability Programme 2022[9], the general government primary deficit is projected to be 2.0% of GDP in 2022, recovering to a surplus of 1.1% of GDP in 2023 due to unwinding fiscal measures and the projected GDP growth. General government debt, after peaking in 2020, in 2021 was 193.3% of GDP and is projected to decline to 180.2% of GDP in 2022 due to the improved economic growth and higher inflation.

HOUSING MARKETS

The real estate market exceeded expectations for investment, entering a period of positive growth expectations. Both house and commercial property prices (prime office and retail) increased, especially in the residential market, due

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 Source: Bank of Greece - Border Survey. Revenues generated by tourism activity increased significantly in 2021 and amounted approximately EUR 11 bn, against EUR 4 bn in 2020, but still limited compared to 2019 (revenues amounted to EUR 18 bn) at approximately by 60%.

4 Bank of Greece: Governor's Annual Report 2021/07.04.2022

5 Bank of Greece Monetary Policy Report 2021-2022/30.06.2022

6 Source: ELSTAT, non-seasonally adjusted data at constant prices.

7 Source: ELSTAT - Labour Force Survey (LFS): non-seasonally adjusted data.

8 Source: ELSTAT.

9 Greece – Stability Programme 2022.

to external investment demand and tourism. However, recent developments in the conflict in Ukraine combined with a significant increase in energy and construction material costs, and strong inflation pressures create new uncertainties that may affect investment interest and growth prospects.

According to the Bank of Greece apartment prices continued to grow, for a fourth consecutive year. The rate was higher than in the previous year, despite the lockdown in the first five months of 2021. Based on Bank of Greece residential data (valuations) collected by credit institutions, apartment prices increased on average by 7.4% (4.5% in 2020, 7.2% in 2019 and 1.8% in 2018). Prices of new apartments (up to 5 years old) increased by 7.9%, slightly higher compared with 7.0% for older apartments (over 5 years old). The highest growth rates in apartment prices were in Athens (9.4%) and Thessaloniki (7.2%) with more moderate growth rates in other cities and in other semi-urban and rural areas (5.7% and 4.8%, respectively). In Q1 2022, apartment prices increased, on average, by 8.6%, y-o-y, for the entire country (9.7%, y-o-y, in Athens, 8.3% in Thessaloniki, 8.2% in other cities and 6.4 % in other areas of Greece).

Various relevant indicators reflect the dynamics of the residential real estate market in 2021. According to ELSTAT data, housing construction activity grew rapidly both in number and volume (cubic meters) terms of new building permits (47.6% and 54.1%, respectively). Annual growth rates in Athens were significantly higher (64.1% and 70.5%, respectively). In the first two months of 2022, construction activity in dwellings continues to increase, in building volume at an annual rate of 35.7% (56.4% in Athens). Foreign investment, which fueled the recovery of high quality real estate and income-related properties, especially in 2018-2019, recovered in 2021 (34.4%) after a significant decrease of 39.6% in 2020.[10] In Q1 2022, net foreign direct investment in real estate was EUR 374.0 mn, compared to EUR 214.0 mn for 2021, an increase of 74.8%, y-o-y. In 2021, housing investment (ELSTAT non-seasonally-adjusted data at constant prices) increased by 26.5%, compared to an increase of 14.6% in 2020, though still remains at a low level of 1.3% of GDP. In Q1 2022, residential investment (seasonally - adjusted data) increased by 18.6%, y-o-y (1.4% of GDP). Business expectations for housing construction, as reflected in the relevant indicator of IOBE, strengthened in 2021 (54.4%) and continues to improve in the first five months of 2022 (64.0%).

Due to the pandemic, the number of real estate transactions[11] decreased by 22.6% in 2020 (74,769 transactions) after five consecutive years of increases (21.5% in 2019, 13.9% in 2018 and 15.3% in 2017). A rebound in the number of transactions is expected for 2021.

The housing market, mainly driven in the past four years by prime locations and investment in residential property, showed price resilience in the pandemic. The outlook remains positive, albeit subject to high uncertainty due to recurrent pandemic waves, the geopolitical developments in the light of conflict in Ukraine, increased energy and construction material costs, strong inflation pressures and COVID-related supply-chain backlogs and shortages.

MORTGAGE MARKETS

The total stock of housing loans continued to decline, by 3.0% in 2021 (-2.7% in 2020 and -3.4% in 2019) a rate which remained unchanged in April 2022 (-3.0%). In 2021, the average amount of new mortgages (including renovation loans) was EUR 73,157 and the loan-to-value ratio for new mortgage loans was 63.7%.[12] Bank interest rates on new and outstanding housing loans remained unchanged to March 2022 compared with the average rate for 2021. In particular, rates on new housing loans[13] in March 2022 were 3.0% (3.1% in 2021 and 2020) and the corresponding rate on outstanding housing loans with an initial maturity of over 5 years was 1.9% (2.0% in 2021 and 2020).

According to the latest available data of the Bank Lending Survey for Greece (Q1 2022), credit standards for loans to households remained stable for all categories of loans since a moderate tightening in 2019 Q3. Terms and conditions for all types of loans to households also remained unchanged. The proportion of rejected loan applications to housing loans remained unchanged since Q1 2019 up to Q3 2021 and since then it slightly increased in both Q4 2021 as well as Q1 2022. The demand for housing loans increased slightly but not as much as banks had expected according to the previous survey in Q4 2021. For Q2 2022, banks expect that credit standards will ease and the demand for housing loans to households will somewhat increase.

Since the sovereign debt crisis in October 2009, private sector deposits have decreased by EUR 55.9 bn (end-April 2022). Deposit outflows of EUR 43 bn between December 2014 and June 2015 ended with the imposition of capital controls (end-June 2015) and agreement on the third Economic Adjustment Programme (August 2015), Since then, private sector deposits have increased by EUR 62 bn (up to April 2022).

In April 2022, private sector deposits increased by EUR 1.3 bn compared to the previous month; the annual growth rate was 5.8%. During the 12-month period (May 2021-April 2022), deposits increased by EUR 9.7 bn compared with an increase of EUR 21.7 bn in the previous 12 months. During most of this period, bank deposits of the non-financial private sector increased, as result of higher precautionary savings, a postponement of consumer and other spending, the use of moratoria on loan and tax obligations, direct State aid and other policy measures to support the liquidity of firms and households against the negative effects of the pandemic crisis.

During the period 2017-2019, foreign direct investment 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 2019 and 2018 (32.3% and 33.5% respectively, against 13.4% in 2017). In 2020, due to the pandemic, foreign direct investment was reduced (EUR 2.8 bn), however the real estate contribution remained strong (28.0%). In 2021, foreign direct investment rebounded and amounted to EUR 4.8 bn, exceeding net capital inflows levels of 2019, mainly in manufacturing and sectors such as financial intermediation and real estate. In Q1 2022, foreign direct investment was EUR 2.4 bn.

[10] Real estate remains a significant beneficiary of foreign direct investment, 24.3% of the total for 2021, compared to 28.0% for 2020 and to 32.3% for 2019 and amounted to EUR 1176.1 mn (EUR 874.9 mn in 2020). The main countries of origin for 2021 were China, Cyprus and Germany.

[11] 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: 2020.

[12] Executive Summary of the Financial Stability Review – May 2022

[13] Including charges.

MORTGAGE FUNDING

Central Bank funding of Greek banks increased from EUR 41.2 bn in December 2020 to EUR 50.8 bn in December 2021. This increase is attributable to the participation in the TLTRO-III operations (given their favorable terms and conditions) and the collateral easing measures adopted in response to COVID-19.

	GREECE 2020	GREECE 2021	EU 27 2021
MACROECONOMIC VARIABLES			
Real GDP growth (%) (1)	-9.0	8.3	5.4
Unemployment Rate (LSF), annual average (%) (1)	16.3	14.7	7.0
HICP inflation (%) (1)	-1.3	0.6	3.0
HOUSING MARKET			
Owner occupation rate (%) (1)	73.9	73.3	70.0
Gross Fixed Investment in Housing (annual change)(1)	14.6	26.5	6.6
Building Permits (2015=100) (2)	149.7	214.1	134.0
House Price Index – country (2015=100) (2)	110.1	118.3	145.2*
House Price Index – capital (2015=100) (2)	119.0	130.1	146.1*
Nominal house price growth (%) (2)	4.5	7.4	10.3*
MORTGAGE MARKET			
Outstanding Residential Loans (mn EUR) (2)	46,133	30,891	6,508,621
Outstanding Residential Loans per capita over 18 (EUR) (2)	5,204	3,494	17,782
Outstanding Residential Loans to disposable income ratio (%) (2)	38.9	24.3	62.8*
Gross residential lending, annual growth (%) (2)	9.0	52.0	12.2
Typical mortgage rate, annual average (%) (2)	2.9	2.8	2.0

* Please note that this value is the simple average of the available values in 2021.

Sources:
(1) Eurostat
(2) European Mortgage Federation - Hypostat 2022, 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?	Not available
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 2020-2021 mortgages with a fixed rate are becoming increasingly popular and in 2021 accounted for 44% 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. Since 12.12.2019, there is a suspension of VAT in newly built properties (L.4649/2019). The suspension will be applicable until the end of 2022. • 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 of the real estate property. Such cost is further increased by fees such as municipal tax, notarial, land registration and legal fees. • 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.4646/2019) will be applicable until the end of 2022.
What is the level (if any) of government subsidies for house purchases in your country?	For house purchase, there was a temporary instalment subsidy scheme for coronavirus-affected debtors with primary residence loans (the 'Gefyra' scheme) valid from August 2020 to end 2021.

Hungary

By Gyula Nagy, Takarék Mortgage Bank Plc

IN A NUTSHELL

- → Double digit growth in mortgage lending volumes and in the house prices.
- → Green Covered Bonds were first issued in 2021, supported by the Green Covered Bond purchase program of the National Bank of Hungary.
- → Green Home Program launched in October (preferential funding for the newly built energy efficient dwellings).
- → Mortgage moratoria ended in October 2021.

MACROECONOMIC OVERVIEW

GDP increased by 7.1 %, an increase of 2.1% compared to 2019. On the production approach, industry increased by 2.1%, value added in construction by 21.4%, and agriculture decreased by 6.1%. Within services, the highest increase occurred in accommodation and food service activities (68.8%), transportation and storage (20.5%) and information and communication (14.1%).

Based on expenditure, consumption by households rose 7.1%, while the by the government rose by 5.8%.

Gross fixed capital formation was up by 5.4% compared to the previous year.

In terms of trade, goods exports increased by 1.5%,while imports were 0.4% lower. Services exports increased by 28.3%, while imports increased by 19.1%.

Average gross earning for employees was HUF 438,800 represented a 8.7% increase.

The unemployment rate was, on average for the year, 4.1%. By year end, as per December 2021 data, unemployment rate fell to 3.7%.

Consumer prices for the whole year were 5.2% higher than in the previous year. Inflation started to accelerate toward the end of the year, consumer prices in December were already 7.4 % higher than a year before. Food prices grew by 8%, motor fuel prices by 25.9%, household repair and maintenance goods by 15.1%.

Hungary posted a Budget deficit of 6.8% of the GDP in 2021. The public debt to GDP ratio was 76.8%.

LOOKING AHEAD

Due to the geographical proximity to the conflict in Ukraine, the economic effects of the conflict are expected to be strong in the Central and Eastern European region. Inflation rose significantly in the first quarter of 2022 and further increases are expected in commodity and energy prices, which is aggravated by increasing disruptions to supply.

New housing subsidies, available from 2021, contributed significantly to the persistently high volume of housing loan disbursements. From October, the Green Home Programme also supported housing loans for new dwellings, but the funds allocated to the programme ran out in the first quarter of 2022. Although inflation effects mortgage rates only with a delay, rising interest rates will adversely influence mortgage lending in 2022.

Due to the real economic risks on the horizon, the rise in household lending may slow to one digit growth. Furthermore, a slowdown of overall house price growth is also expected in 2022.

However, a further strong price growth is expected for new dwellings that comply with the "nearly zero energy emission" criteria, because for these dwellings it is expected that supply will not be able to satisfy growing demand.

HOUSING MARKETS

Hungary had a population of 9.7 mn and a stock of 4.5 mn housing units at the end of 2021. Homeownership ratio with 91,3% in 2021, ranking among the highest in the EU.

The year started with a significant recovery for the housing market. Following the reopening of the economy, the labour market returned to "pre-covid levels". In some sectors staffing shortages occurred (e.g. construction workers, tourist sector, etc.). Household real income also started to grow significantly from the second quarter.

New housing subsidies available from the beginning of the year also made a major contribution to housing demand. The number of building permits granted in 2021 was 29,941, up 33% compared to 2020 (22,556). The increase was a result of improving investment sentiment, and of the reinstatement of the preferential VAT (5% instead of 27%) for new residential projects started with a valid building permit until the end of 2022. The number of housing units completed in 2021 was 19,898, a 29% reduction compared to 2020, when a total of 28,158 dwellings were finished.

In Budapest, 5,491 new permits were issued versus 6,355 in 2020. The number of finished dwellings was 7,038 versus 6,341. Thus, while new permits decreased by 13.6% completions increased by 11% in the capital.

In the new housing segment, the subsidies available in 2021 stimulated the market, while the Green Home Programme of the National Bank encouraged developers to build environmentally sustainable new residential properties.

In contrast, demand and supply uncertainties in connection with the economic reopening led to sharp rises in construction material prices and shortages of materials across several jurisdictions, including Hungary.

Furthermore, a shortage of skilled manpower and construction material in the construction sector slowed housing completions in 2021, which helps explain apparently contradictory market movements (that is, high growth in permissions and contractions in the number of finished residential projects and housing completions).

With the pick-up of economic growth, double digit growth in mortgage lending and the subsidies available to first time buyers and families, house price growth accelerated.

According to the Takarék House price Index, prices in 2021 were 12 % higher than in the previous year. The increase in Budapest was only 6%, below the country average, but in Szeged it was 16% and in Debrecen 19%, two large cities in which price growth exceeded the country average.

According to the figures in the House Market Report of the National Bank of Hungary the number of housing transactions was 168,000 during the year.

MORTGAGE MARKETS

MARKET DYNAMICS

Outstanding residential loans to households grew by 12%. Gross lending grew by 26%. Growth was especially strong from the second quarter following a contraction in the first quarter. Moreover, second quarter monthly disbursements reached historic heights. In some months the monthly disbursed new loans were only comparable to volumes seen before the GFC in 2008.

The increase was driven by the continued rise in house prices, the expansion in home purchase subsidies, demand brought forward as a result of the interest rate hike expectations and the Green Home Programme.

The Green Home Programme (designed for new built dwellings and houses) was launched in October, the ratio of loans taken out for the purchase and construction of new homes in Q4 of 2021 rose to 23% from 17.5% in Q4 of 2020.

The number of housing loan contracts continued to rise year-on-year, the average loan amount also increased due to the growing house prices by 10-11% in 2021 compared to the previous year .

In spite of the growth in housing loans , the mortgage debt to GDP ratio in Hungary is still among the lowest compared to other jurisdictions in the region. The mortgage debt/GDP ratio grew from 8.4% to approximately 8.9% in 2021. The typical LTV of a new mortgage is below 60%. About 36% of loans have an LTV lower than 50%, only 32% above 70%.

The payment moratoria introduced in March 2020 following the outbreak of COVID ended (with some exceptions) at the end of October 2021. Only a limited number of eligible debtors used the opportunity to stay in moratoria from November 2021 (approximately 5% of household debtor).

The NPL ratio of the residential mortgage stock grew from 2.4% in 2020 to 3.7% in 2021.

MORTGAGE FUNDING

The largest portion of mortgage loans are deposit-funded, but covered bonds are also a commonly used source of funding. Act XXX. on Mortgage Banks and Mortgage Bonds, approved by the Hungarian Parliament in 1997, contributed significantly to the establishment of the covered bond market and provided support to establish a mortgage 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. According to the regulation, the commercial banks were obliged to refinance at first 15% of their outstanding long-term mortgage loan portfolio with long term securities. The ratio was than 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% will enter into force only from October 2023.

In light of the pandemic, the Central Bank announced a covered bond purchase program in 2020. This programme started in May in 2020 with the aim of stimulating the frozen capital markets. By means of this programme the NBH bought mortgage bonds on the primary and secondary markets at preferential rates. In November 2020 the NBH announced the end of the bond purchase program but at the same time announced the start of a new green mortgage bond programme in 2021.

GREEN FUNDING

The Green Mortgage Bond Purchase Programme of the NBH started in 2021. Within its framework, the NBH undertook the purchase of 40% of the issued Green Covered Bonds on the auctions at preferential rates and also to buy smaller volumes on the secondary market. As a result of this programme, 4 mortgage banks out of the 5 operating in Hungary launched green covered bonds in 2021.

The National Bank of Hungary’s Green Home Programme (GHP), mentioned above, targeted households and individuals buying or building new energy-efficient homes. The programme was originally launched in October 2021 and homes subjected to it have to have an energy efficiency rating of at least BB and a maximum primary energy consumption of 90 kWh/m2 /year. In 2022, the energy consumption threshold of dwellings eligible for the programme was restricted to 80 kWH/m2/year). In light of the rapidly growing interest rates , the central bank's funding for financial institutions at 0% interest, combined with a maximum 2.5% interest toward the debtors, proved to be a great motivating factor for the buyers to apply for this loan facility. The program has proven to be a great success , but the allocated funds ran out at the end of Q1 2022.

	HUNGARY 2020	HUNGARY 2021	EU 27 2021
MACROECONOMIC VARIABLES			
Real GDP growth (%) (1)	-4.5	7.1	5.4
Unemployment Rate (LSF). annual average (%) (1)	4.3	4.1	7.0
HICP inflation (%) (1)	3.4	5.2	3.0
HOUSING MARKET			
Owner occupation rate (%) (1)	91.3	91.3	70.0
Gross Fixed Investment in Housing (annual change)(1)	21.5	-10.4	6.6
Building Permits (2015=100) (2)	180.2	239.2	134.0
House Price Index – country (2015=100) (2)	203.6	227.8	145.2*
House Price Index – capital (2015=100) (2)	220.3	233.8	146.1*
Nominal house price growth (%) (2)	9.1	11.9	10.3*
MORTGAGE MARKET			
Outstanding Residential Loans (mn EUR) (2)	13,321	14,660	6,508,621
Outstanding Residential Loans per capita over 18 (EUR) (2)	1,653	1,827	17,782
Outstanding Residential Loans to disposable income ratio (%) (2)	16.6	16.3	62.8*
Gross residential lending. annual growth (%) (2)	-5.6	23.9	12.2
Typical mortgage rate. annual average (%) (2)	4.6	4.4	2.0

* Please note that this value is the simple average of the available values in 2021.

Sources:
(1) Eurostat
(2) European Mortgage Federation - Hypostat 2022, Statistical Tables.

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 60.5%, mortgage banks 30.5%, home savings cooperatives 9.1% of the new mortgage issuances.
Which entities hold what proportion of outstanding mortgage loans in your country?	Commercial banks hold 59%, mortgage banks 30%, home saving cooperatives 11% 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%.
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 16.2 years in 2021.
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 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 it was initially set at 15%. From October 2019 the ratio increased to 25% and remained at this level in 2020 and 2021.
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 2.5 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). New housing subsidies generated a record high volume of lending for housing purposes in 2021. A significant part of the new housing subsidies effective from January 2021 are connected to the Home Purchase Subsidy (HPS) for Families, the Rural HPS remaining the housing subsidy with the highest disbursement. 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. Apart from the HPS programs the "Prenatal Baby Support" program (unsecured interest free loan facility up to HUF 10 Mio) also helped to stimulate the house purchase possibilities for families and first time buyers. For families with three or more children, a lump sum subsidy of HUF 10 mn and a further HUF 10 mn subsidised loan with a max 3% interest rate is available, when they purchase a new home. The purchase of used homes in certain small settlements (about 2,500 countrywide) can also be a subject of this subsidy, up to 50% of the purchase price. The Home Purchase Subsidy quickly became popular and it has had positive impact on the home purchase activity among First Home Buyers (mainly young couples).

Ireland

By Anthony O'Brien, Banking & Payments Federation Ireland

IN A NUTSHELL

- → The economy recovered well from Covid-19 and related public health measures.
- → 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 2020 driven by lending to first-time buyers (FTBs) and by mortgage switching.

MACROECONOMIC OVERVIEW

The Irish economy recovered strongly during 2021 as the public health restrictions aimed at limiting the spread of Covid-19 were lifted. The economic impact varied over time depending on the restrictions in place and on the sector of the economy and strict measures were in place for the first four months of 2021 including the closure of non-essential construction and retail.

Gross domestic product grew by 13.6% in 2021 (according to preliminary figures from the Central Statistics Office), driven by growth in sectors dominated by multinationals such as manufacturing and information and communication.

Modified final domestic demand, which excludes globalisation effects such as trade in intellectual property and aircraft leasing, rose by 6.5%, but by only 1.3% compared with 2019. While consumer spending rose by 5.7%, it was 5.3% lower than in 2019.

While the public health measures had a major impact on employment trends during the year, the unemployment rate fell from 5.9% in in Q4 2020 to 4.9% in Q4 2021. Substantial government support, especially the employment wage subsidy scheme for employers and the pandemic unemployment payment (PUP) for workers, helped to absorb some of the impact of the reduced business activity on incomes, especially the sectors worst affected by the restrictions. The combination of social protection support and subdued consumer spending resulted in substantial household gross savings of EUR 27 bn, of which about EUR 6 bn was used to pay for new homes or home improvements.

Consumer price inflation, as measured by the harmonised indices of consumer prices (HICP) according to Eurostat, was 2.4%, with a 12.3% increase in prices for energy products.

HOUSING MARKET

The housing and mortgage markets performed well despite the fact that most residential construction actively ceased in the first third of the year. Demand for housing remained strong and earnings were not affected in sectors where employees were able to continue to work from home or in businesses categorised as essential and able to continue operating.

The shortage of supply of new homes remained the key issue. Housing starts grew strongly with more than 30,700 units, the most since 2007. Dublin and the Mid-East region (the surrounding counties) recorded their highest levels since 2006 and accounted for 61% of housing starts in 2021.
However, new housing completions fell to their lowest level since 2018 at less than 20,500 units, according to the CSO. Completions in Dublin rose by 2.7% year on year to 6,201. Dublin accounted for 78% of apartments completed nationwide. Nationwide, the number of apartments completed increased by 30.3% to 5,107 and apartments accounted for 25% of completions - the highest level recorded based on data available from 1994. By contrast, the number of multi-unit development houses completed nationally fell to 10,644, the lowest level since 2017. Some 33.1% of scheme houses were in Dublin Commuter, while 26.3% were in Munster.

With housing demand continuing to outstrip supply, CSO annual data shows that residential property prices rose for the ninth successive year, and the rate of house price inflation accelerated sharply to 8.3%. Residential property prices in Dublin rose by 7.3% while prices outside Dublin rose by 9.2%. By the end of December 2021, residential property prices were only 4% lower than their peak in April 2007 and they were at their highest level since March 2008. Excluding simple property transfers, residential property sales rose by 22% to 46,619, according to the CSO, the highest level since the data series started in 2010. On a regional basis, there was the highest sales volume on record in all but five counties: Dublin, Galway, Limerick, Meath and Monaghan. Sales of existing properties rose by 26.1% year on year to 38,851 in 2021, driven by a 25.6% increase in sales on existing houses to 32,902 – in both cases, the most since the data series began.

Non-household buyers (such as companies, housing charities and government) accounted for 20.2% of market purchases of residential properties to 23.3%, the lowest share since 2018. Conversely, household investment in property (not for occupation) accounted for 14.3% of market purchases, up from 13.6% in 2020 but down from 17.6% in 2018.
With housing in short supply, rents also increased significantly in 2021. The national standardised rent level (based on new tenancies) rose by 9% year-on-year in Q4 2021 to EUR 1,366, according to the Residential Tenancies Board (RTB). By the end of 2021, 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 22.1% in volume terms to 43,494, the most since 2009, and in value terms by 25.1% to almost EUR 10.5 bn, the highest level since 2008. There were almost 43,200 mortgage approvals with a total value of just over EUR 10.3 bn, down 12% and 6.7% in volume and value terms, respectively. The number of approvals was the lowest since 2017. At a segment level, first-time buyer (FTB) volumes reached their highest level since 2007 at 22,901, 14.8% higher than in 2008. By contrast, mover purchase volumes were 48.2% lower than in 2008 and, excluding 2020, were at their lowest level since 2016. Re-mortgage or switching drawdowns increased by 30.9% year on year to 6,458 in 2021, the most since 2008.

Total residential and commercial mortgage debt outstanding to banks, including those that have been securitised, shrank to about EUR 86.9 bn at year end from about EUR 90.3 bn a year earlier, according to the Central Bank of Ireland (CBI). When non-banks are included, the value of mortgage debt outstanding fell from EUR112 bn to EUR 113 bn, while the number of accounts dropped by 2.2% to about 810,000. Buy-to-let mortgages accounted for 10.9% of the number and 12.1% of the value of mortgages outstanding.

Some 31.6% of the value of credit institution housing loans was on tracker rates linked to the ECB base rate by year end. The value of these outstanding has more than halved since Q1 2016. The share of outstanding mortgages on rates fixed for over one year increased from 36.7% at the end of 2020 to 44.1%. Some 80% of the value of new mortgage loan agreements were on fixed rates of greater than one year.

Only 4.5% mortgage accounts for private dwelling home (PDH) were in arrears of more than 90 days by the end of 2021, the lowest proportion since Q1 2010. Some 12% 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 9.2% of all PDH accounts and 9.7% of all BTL accounts had an active restructure by the end of 2021 and about 83% of restructured accounts were not in arrears.

NON-MARKET INTERVENTIONS

The CBI maintained its loan-to-value (LTV) and loan-to-income (LTI) limits for new mortgage lending in 2021 broadly without changes. The CBI permits lenders to provide a portion of borrowers with loans that have LTIs and LTVs higher than the limits. Recognising the operation challenge of managing these allowances during the 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. The CBI also launched a wider framework review of the lending limits which is due to be completed in late 2022.

CBI research indicates that the average LTV for FTBs fell from 81.7% in H1 2020 to 80.8% in H1 2021, while the average LTI was unchanged at 3.1. For second and subsequent buyers (SSB), who are mostly home movers and exclude buy-to-lets, the average LTV fell to 66.8% from 67.9%, while the average LTI was also unchanged at 2.6.

The government Help to Buy (HTB) tax rebate scheme allows FTBs to use refunded deposit interest and income tax to help finance new home purchase or building, with claimants accessing up to EUR 30,000 or 10% of the purchase value. The scheme was further extended to the end of 2022, with a formal review planned during 2022. By the end of 2021, 30,351 claims had been approved and the total value of approved claims (since July 2016) reached EUR 560 mn. The CBI also confirmed that retail banks would be able to participate in the government's planned shared equity scheme, which is due to launch in 2022.

MORTGAGE FUNDING

Banks in Ireland rely mainly on retail funding sources (household and corporate deposits) for mortgage lending. The surge in deposits during the 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, according to the European Central Bank's ESRB Risk Dashboard, less than half the level in Q2 2009. Private sector deposits (mainly from households and non-financial corporations) rose by 11.6% year on year to EUR 286 bn at the end of 2021, some 48% of which were household deposits. Private sector deposits represented almost 50% of total liabilities for credit institutions with a domestic market focus.

Some EUR 17 bn in mortgages outstanding were securitised at the end of 2021 according to the CBI.

Mortgage covered bonds outstanding in Ireland fell from EUR 19.3 bn in 2019 to EUR 16.8 bn in 2020. Some EUR 2 bn in new mortgage covered bonds was issued during 2020.

CBI LTV AND LTI LIMITS

LTV LIMITS	PRIMARY DWELLING HOMES	LIMIT	ALLOWANCE
		FTBs: 90%	5% of new lending to FTBs allowed above 90%
		Non-FTBs: 80%	20% of non-FTB new lending allowed above 80%
	BTLS/INVESTORS	70%	10% of new lending above the BTL limit is allowed
LTI LIMITS	PRIMARY DWELLING HOMES	3.5 times income	20% of new FTB lending above LTI limit is allowed; 10% of new non-FTB lending allowed
EXEMPTIONS	FROM LTV LIMIT:	FROM LTI LIMIT:	FROM BOTH LIMITS:
	Borrowers in negative equity	Borrowers for investment properties	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 2020	IRELAND 2021	EU 27 2021
MACROECONOMIC VARIABLES			
Real GDP growth (%) (1)	6.2	13.6	5.4
Unemployment Rate (LSF). annual average (%) (1)	5.7	6.2	7.0
HICP inflation (%) (1)	-0.5	2.4	3.0
HOUSING MARKET			
Owner occupation rate (%) (1)	69.3	70	70.0
Gross Fixed Investment in Housing (annual change)(1)	-7.5	2.2	6.6
Building Permits (2015=100) (2)	324.8	329.6	134.0
House Price Index – country (2015=100) (2)	134.8	145.9	145.2*
House Price Index – capital (2015=100) (2)	124.3	133.3	146.1*
Nominal house price growth (%) (2)	0.4	8.2	10.3*
MORTGAGE MARKET			
Outstanding Residential Loans (mn EUR) (2)	80,891	79,634	6,508,621
Outstanding Residential Loans per capita over 18 (EUR) (2)	21,498	20,893	17,782
Outstanding Residential Loans to disposable income ratio (%) (2)	65.4	61.6	62.8*
Gross residential lending. annual growth (%) (2)	-12.3	25.1	12.2
Typical mortgage rate. annual average (%) (2)	2.8	2.7	2.0

* Please note that this value is the simple average of the available values in 2021.

Sources:
(1) Eurostat
(2) European Mortgage Federation - Hypostat 2022, 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-bank lenders accounted for 15.5% of the number and 20.1% of the value of residential mortgages outstanding at the end of 2021, according to the Central Bank of Ireland. They held 13.6% and 31.0% of the number of principal dwelling home (PDH) and buy-to-let (BTL) mortgages outstanding, respectively, at the end of 2021. Non-banks include retail credit firms, which are non-deposit taking regulated lenders, and unregulated loan owners.
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 80.8% in H1 2021 according to the Central Bank of Ireland, up from 81.7% in H1 2020. The average LTV for subsequent private dwelling home (PDH) buyers was much lower at 66.8% in H1 2021, down from 67.9% a year earlier. The average BTL LTV fell to 60.6% in H1 2021 from 60.7% in H1 2020. Note: These figures exclude the 10% of loans that were exempt from the Central Bank of Ireland's macroprudential regulations in H1 2021, 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 four years. In 2021, some 80.2% of the value of new mortgage agreements were on initial fixed rates over one year. By the end of 2021, some 31.6% 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 (24.3%) and greater than one year fixed rates (44.1%).
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 2021, 30,351 claims had been approved and the total value of approved claims (since July 2016) reached EUR 560 mn.

Italy

By Marco Marino, Italian Banking Association – ABI

IN A NUTSHELL

- → GDP rose by 6.6% in 2021.
- → In early 2022, the increase in the pandemic, supply chain problems and the rise in energy prices adversely affected the economy.
- → House sales increase and the residential mortgage market continued to grow.
- → New non-performing loan rates remain low.
- → The fiscal bonus for house renovations has been extended.

MACROECONOMIC OVERVIEW

GDP rose by 6.6%, making up two thirds of the 2020 contraction. According to the Bank of Italy's annual report, economic activity was particularly vigorous in Q2 and Q3, driven by an easing of restrictions after the vaccination roll-out, while it slowed in the fourth quarter, reflecting difficulties in procuring intermediate goods, the resurgence of the pandemic and the sharp increase in commodity prices, particularly energy.

The recovery was strongest in industry (+11.9%) - in particular construction which, supported by tax incentives grew by 21.3% - while growth was lower in the services sector (+4.5%), affected hardest by the pandemic due to restrictions and consumer behaviour.

Consumption rose rapidly (+5.2%) but spending in the tourism and recreation sector remains considerably below pre-pandemic levels.

Household disposable income increased by 3.8%. The financial conditions of households and firms remained solid. Total private debt (households and firms) is still considerably lower than the European average and that of other advanced economies.
The economic recovery led to a significant improvement in the public accounts: the ratio of general government net borrowing to GDP decreased from 9.6% to 7.2% thanks to a lower primary deficit and the debt-to-GDP ratio fell to 150.8% (-4.4%).
Employment increased by 0.6%, while the number of hours worked by 8%.
In 2021, exports grew faster than the other major countries of the euro area. Exports of goods rose sharply (+13.1%), despite bottlenecks in global supply chains, recovering the contraction of the previous year (in 2020, they decreased of more than 9%). In particular, mechanics, the fashion supply chain and the sectors of rubber, plastic, metals and non-minerals significantly contributed to the recovery of exports of goods.
Exports of services, while expanding significantly (+14.3%) thanks to the recovery in tourism receipts, are still below pre-pandemic levels.
Inflation rose to 1.9 % on average for the year. This was driven, mainly in the second half of the year, by higher energy prices.
The flow of new non-performing loans in proportion to total performing loans remains low.

LOOKING AHEAD

At the beginning of 2022, a resurgence of the pandemic, difficulties in procuring intermediate goods and the rise in energy prices, affected economic activity. Since the end of February, the effects of the conflict in Ukraine have caused further spikes in energy and commodity prices.

GDP fell by 0.2% in the first quarter of 2022.

According to the 2022 Bank of Italy annual report, high-frequency data indicate that a modest recovery in economic activity is under way in the second quarter of 2022, although there is uncertainty due to the extreme volatility of the macroeconomic situation. In April, inflation rose to 6.3%. The inflation expectations of firms, households and analysts are also rising significantly.

HOUSING MARKETS

Residential housing market transactions grew, continuing the growth since 2014 which was only interrupted in 2020 when transactions fell 7.7%.
House sales were circa 748,500, 34% more than in 2020 and 24% more than 2019. The most significant increase in the volume of transactions was in the South (+35.8%), Centre (+35.3%) and the Islands (+35.1%), which together are about 46% of the market.
The increase was more significant in smaller cities (+36.5%) - with peaks of more than 38% in the Center, in the South and in the Islands - than in provincial capitals (+28.7%).
There was also a recovery in the main eight major cities of 28% compared with 2020 and 11% compared to 2019. The best performance was in Genova (+32% on an annual basis) and Rome (+31.4%)
According to preliminary estimates of the Italian National Institute of Statistics (ISTAT), on average, in 2021, the Housing Price Index increased by 2.5% y-o-y. This increase was due both to the prices of new dwellings, which grew by 3.8% and existing dwellings which increased by 2.3%.
The analysis of the quotations' performance in the main eight cities of Italy shows that Milano also in 2021 continued to register an increase of the quotations EUR/m2, with 2.5% y-o-y (this is the fifth consecutive increase since 2017), followed by Napoli (+1.3%) and Bologna (+0.8%)..

MORTGAGE MARKETS

MARKET DYNAMICS

The residential mortgage market continued to grow: outstanding loans reached EUR 408.8 bn in 2021 (+4.7%) and new loans (EUR 79 bn by the end of the year) expanded further (+3.6%).
Mortgages for young people's first home increased, also thanks to the extension and the reinforcement of the First Home Loan Guarantee Fund.
Housing transactions with a mortgage amounted to about 366,000 units (+34% with respect to 2020 and +27.6% with respect to 2019). Considering house

purchased with mortgages by individual, they were about 51.2% of the total, a slight increase on the previous year.
The average mortgage amount increased to about EUR 136,000 (up EUR 4,300 on the year and more than EUR 8,000 compared with 2019): the largest average amount was in the Central area, with an average of EUR 151,000 (almost EUR 173,000 in the major cities).
The average maturity increased slightly to 23.9 years (from 23.5 years in 2020) and is similar in all areas.
Interest rates on short term loans and those with a maturity over 1 year rose, after falling for several years. In December 2021, rates on short term loans (with maturity <1 year) increased to 1.32% (1.29% at the end of 2020) while rates on loans with a maturity over 1 year increased to 1.41% (1.24% at the end of 2020). The average rate on new business for house purchasing increased to 1.40% (1.25% at the end of 2019). Borrowers increasingly preferred fixed-rate mortgages.

NON-MARKET LED INITIATIVES

The Law Decree n. 73/2021 introduced emergency measures to support businesses and families affected by the pandemic.
In particular, the First Home Loan Guarantee Fund has been revised.
The Fund supports credit access for all the consumers buying their first house. Upon request of the consumer, if all criteria are met and the adhering bank decides to underwrite the mortgage, the public guarantee –according to the general requirements- covers 50% of the total amount of the financing (regardless of the family composition or the age).

At the date of the loan application for the purchase of the first home, the beneficiary shall not be the owner of other residential properties (except if the house is purchased by succession due to death and transferred free of charge to parents or siblings).

The consumer applies for a mortgage from a participating bank that must be adherent to the initiative and for the public guarantee, via the bank. The applicant must declare that the property is a "first house" and is not classified as a luxury house. Additionally, the amount of the loan requested should be lower than EUR 250,000.
Banks are always independent in their decision to finance applicants, relying on creditworthiness assessment.
With the new measures introduced by the Law Decree n. 73/2021, the amount guaranteed increased from 50% to 80% in favour to specific categories of beneficiaries -including for example people under the age of 36 - with a Household Composition and Financial Situation (ISEE) (an index used to compare the financial situation of families), not exceeding EUR 40,000 yearly and a mortgage exceeding 80% of property's purchase price, including ancillary charges.

The guarantee has remained at 50% for the other people with ISEE more than EUR 40,000 yearly.

The Budget Law 2022 extended the measure to 31 December of 2022.

ANY FURTHER IMPORTANT EVOLUTION

The Italian banking sector has been strongly committed to ensuring that Italian Institutions measures to support families and companies affected by the pandemic are correctly and quickly applied.
In particular, important changes have been introduced to "the Mortgage Solidarity Fund for first-time buyer" (also known as the "Gasparrini" Fund) active from April 2013.

The Fund - aimed to suspend payments for 18 months, in case of death, serious injury, loss of job, suspension of work for at least 30 days, reduction of working hours for at least 30 days for loans up to EUR 250,000, whose holder had an ISEE not exceeding EUR 30,000- has been extended until 31 December 2022 to: (I) self-employed workers, professionals and individual companies who self-certify a decrease, in the quarter after 21st February 2020 and before the suspension request, in turnover of more than 33% compared with the last quarter of 2019, as a result of the pandemic, (II) those who exceed the annual income of EUR 30,000 (III) loans up to EUR 400,000 and (IV) loans guaranteed by the First Home Loan Guarantee Fund. Furthermore, the Fund has been extended for a period of 24 months as of 9th April 2020 to mortgage loans that have been originated for less than a year.

According to the data at 31 of December 2021, it has been estimated that the existing outstanding debt moratoriums to households and NFCs amounted approximately to EUR 44 bn, compared to the total moratoriums granted since March 2020 which was approximately EUR 280 bn.

Italian banks have also launched individual voluntary measures to support families and companies damaged by the pandemic, such as new financing programmes to cover SMEs and self-employed cash needs, and simplify the procedures related to signatures of financing agreements.

MORTGAGE FUNDING

Total funding (resident customers deposits and bonds) grew about 5.6% y-o-y (+8.0% in 2020). Deposits (current accounts, certificates of deposit, repurchase agreements) increased by 6.9% (+10.5% in 2020), while funding by bonds decreased by 4.4% (-8.3% in 2020). A total of approximately EUR 23.5 bn of Italian covered bonds were issued. The total level of outstanding was approximately EUR 171.6 bn. Approximately EUR 4.5 bn of securitisations were issued.

GREEN FUNDING

The fiscal bonus related to house renovation may have had a positive impact on purchasing decisions.
In 2020, new fiscal measures were introduced to deal with the pandemic with incentives for certain types of work, including improving energy efficiency, installing photovoltaic cells and electric vehicle charging columns and for seismic risk reduction.
In particular, the benefit consists of a deduction rate equal to 110%, if the expenses are incurred from 1° July 2020 and if specific technical requirements are met.
The 2022 Budget Law extended the "Superbonus", providing different deadlines in relation to the beneficiaries:

- December 2025 for condominiums and individuals, outside of business activities, in the following sizes: 110% for expenses incurred up to 31 December of 2023; 70%, for expenses incurred in 2024; 65% for expenses incurred in 2025;
- December 2022 (with a 110% deduction), for interventions carried out by individuals on single-family buildings, if work has been realised for at least 30% of the total by 30 June 2022

The tax deduction can be converted into an invoice discount or a tax credit that may be transferred to banks and financial intermediaries. Other important fiscal measures to encourage the renovation and improvement of buildings exist. For example, at the end of 2019, the Italian Institutions introduced a measure for building external wall ("Building External Wall Bonus"). This consists of a tax credit equal to 90% of the expenses incurred in 2020 and 2021, without a maximum. The work can be carried out on the structures visible from street level. This incentive is applicable on existing buildings in certain zones.

The deduction is divided into 10 equal annual instalments. The 2022 Budget Law extended the measure to the expenses incurred in 2022, but in this case reducing the tax credit to 60%.

Another measure is the "Restructuring Bonus": which provides a deduction of 50% for restructuring and renovation expenses carried out on private properties and on the commonly owned parts of condominiums. In detail, those who renovate their property can take advantage of a 50% personal income tax deduction up to a maximum of EUR 96,000 per property unit. The deduction is divided into 10 equal annual instalments, starting in the year in which the expenditure was started.

The latest Budget Law extended the measure to 2024.

For both initiatives, the tax deduction can be converted into an invoice discount or a tax credit that may be transferred to banks or financial intermediaries

The Italian banking sector is strongly committed to support families and companies in the realisation and financing of investments which can be eligible for these measures. Italian banks have set up internal units and teams dedicated to these operations.

	ITALY 2020	ITALY 2021	EU 27 2021
MACROECONOMIC VARIABLES			
Real GDP growth (%) (1)	-9.0	6.6	5.4
Unemployment Rate (LSF), annual average (%) (1)	9.2	9.5	7.0
HICP inflation (%) (1)	-0.1	1.9	3.0
HOUSING MARKET			
Owner occupation rate (%) (1)	75.1	73.7	70.0
Gross Fixed Investment in Housing (annual change)(1)	-7.4	25.9	6.6
Building Permits (2015=100) (2)	114.4	142.7	134.0
House Price Index – country (2015=100) (2)	100.4	103.0	145.2*
House Price Index – capital (2015=100) (2)	86.1	85.7	146.1*
Nominal house price growth (%) (2)	1.9	2.6	10.3*
MORTGAGE MARKET			
Outstanding Residential Loans (mn EUR) (2)	391,515	409,868	6,508,621
Outstanding Residential Loans per capita over 18 (EUR) (2)	7,798	8,216	17,782
Outstanding Residential Loans to disposable income ratio (%) (2)	33.9	34.2	62.8*
Gross residential lending, annual growth (%) (2)	6.6	3.6	12.2
Typical mortgage rate, annual average (%) (2)	1.2	1.4	2.0

* Please note that this value is the simple average of the available values in 2021.

Sources:
(1) Eurostat
(2) European Mortgage Federation - Hypostat 2022, 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?	Banks cover a very high percentage of the market.
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 are an important 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" entered into force. The Fund supports credit access for all the consumers buying their first house. The public guarantee covers 50% of the total amount of the financing (in some cases up to 80%).

Latvia

By Andrejs Semjonovs, Bank of Latvia

IN A NUTSHELL

- → The economy recovered, the government continued to provide Covid-related support to help preserve employment and stabilise household income.
- → House prices increased due to buoyant market activity and low new building construction rates.
- → Rising housing demand supported residential lending, the outstanding amount of mortgage loans held by banks increased moderately.
- → Domestic deposits continue to dominate bank funding.

MACROECONOMIC OVERVIEW

Despite the recurring waves of the pandemic, the economy largely recovered. GDP grew by 4.5% (s.a.) exceeding the pre-pandemic level, with mainly the contact-intensive services lagging whereas manufacturing benefited from a return of foreign demand. Exports of goods and services grew by 6.2% in real terms (s.a.). The global economic recovery led to supply-side bottlenecks motivating businesses to increase inventories boosting imports of goods by 12.1% (s.a.) in real terms. As containment measures rendered many services unavailable periodically, despite the income growth the private consumption in the year as a whole remained below the 2019 level, growing by 4.5% in 2021 after a 7.4% drop in 2020.

The recovery of global demand caused price increases in various industrial inputs including construction materials and energy weighing on investment decisions in Latvia and contributing to inflation. Gross fixed capital formation grew by 2.3%, mainly investment in machinery and equipment, while investment in dwellings as well as other buildings and structures dropped considerably (by 14.7% and 4.8% respectively, s.a.). The annual increase in consumer prices reached 3.2% in 2021 overall as measured by HICP, and ranged from a negative rate in January to 7.9% in December.

The increase in economic activity resulted in unemployment falling to 7.6% in 2021 on average. Government policies continued to provide pandemic related support to preserve jobs and stabilise disposable income. By the end of the year some small government support become available to mitigate the impact of growing energy prices on vulnerable household purchasing power.

The general government budget deficit widened to 7.3% as the pandemic support package more than doubled from 2020 as allowed by the General Escape Clause of the Stability and Growth pact. Government debt remained at sustainable level of 44.8% of GDP.

HOUSING MARKETS

Real estate market activity was high in 2021 and the first quarter of 2022. The activity was broad-based, as the number of real estate purchases increased for existing and new apartments and residential houses. The number of purchases of land units for the individual residential houses also increased. The conflict in Ukraine affected activity in the real estate market temporarily but not significantly. In March 2022, the number of purchases was 3.4% lower than in March 2021, but 14.4% higher than in March 2019. Activity was boosted by the increase in income and savings for many households and state support for families with children.

The supply side was weaker. Construction of new dwellings continued to slow. According to the Central Statistical Bureau's of Latvia data, the total area of the new dwellings commissioned was 23.2% less than in 2020. According to Colliers estimates[1], the number of available completed new apartments in Riga and Riga region had fallen to its lowest level in the last 10 years. As elsewhere in Europe, construction activity was hampered by a sharp rise in construction costs and supply chain bottlenecks on building materials.

House prices are growing more rapidly due to the imbalance between supply and demand. According to the CSB data, house prices increased by 11.0% in 2021. The rate of price growth accelerated over the year, with prices in the fourth quarter being 16.5% higher than in the fourth quarter of 2020. It should be noted that the dynamics of the house price index in countries with a relatively small and heterogeneous real estate market (such as the Latvian market) may be affected by changes in the structure of market transactions. In the fourth quarter of 2021, the share of transactions with larger existing dwellings and private houses in areas with higher house prices increased significantly, which may have contributed to the growth rate of the index. The impact of changes in the structure of market transactions is smaller if price growth is calculated within individual market segments. According to the information published by real estate companies, price growth in the largest market segments has been more moderate - in the fourth quarter of 2021 the prices of standard-type apartments in Riga were 11.1% higher than in fourth quarter of 2020.

The conflict in Ukraine and sanctions are having a negative impact on the supply of construction materials (most importantly, the availability of metals) and construction costs, so the availability of new housing will continue to deteriorate. Slow construction of new housing implies that house price growth is likely to remain significant in 2022.

MORTGAGE MARKETS

The outstanding amount of residential and commercial mortgage loans held by banks increased moderately in 2021 – by 3.7%. Residential mortgages outstanding increased by 7.8% partly explained by the acquisition of the loan portfolio of a non-bank (excluding this one-off effect by 4.1%). Moderate growth of residential lending is explained by rising demand for housing on account of households wishing to improve their living conditions or use the option of working remotely more extensively as well as better-off individuals looking for investment opportunities.

New origination continues to be facilitated by low interest rates and the state housing guarantee programme[2] (in 2021, 44% of new residential mortgages were issued within this scheme).

[1] https://www.colliers.com/en-lv/news/the-number-of-completed-new-apartments-available-on-the-market-in-riga-has-decreased

[2] Within the programme, a guarantee for a bank loan for purchase or construction of the housing for the families with children or young specialists with regular income but not enough savings to make the down payment 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-guarantee-programme/about-the-programme/ and here : https://www.altum.lv/en/services/individuals/housing-guarantee-programme-1/about-the-programme-of-housing-guarantees/

After a period of lending standard volatility at the start of the pandemic, the LTV of new residential mortgage loans remained stable in 2021. LTVs for 27% of new loans volume exceeded 90% in 2021, mainly related to the state housing guarantee programme. Total residential mortgage loans are only 13% of GDP and overall household indebtedness is low. Interest rates on residential mortgage loans has decreased somewhat – from 2.62% in 2020 to 2.38% in 2021.

The quality of bank loan portfolios continues to improve – NPLs comprised 2.4% of the total domestic loans and 1.6% of the residential mortgage loans as of end-2021.

MORTGAGE FUNDING

Credit institutions in Latvia obtain funding mostly from domestic retail and non-financial corporations deposits and some banks participated in TLTRO III operations. Latvian credit institutions are not active in the financial markets as a source of funding. Domestic deposits as a source of funding continued to grow and at the end of 2021 was 66.4% (compared to 62.7% the year before) of banks' total liabilities, while the share of liabilities to foreign parent MFIs (mostly Nordic parent banks) was 2.8% (3.1% in 2020) as only small foreign branches used parent banks funding and the banking sector domestic loan to deposit ratio was still low – 74.8% (73.8% in 2020). In 2021, there were no mortgage covered bonds issued by Latvian MFIs (however, one of Estonian bank's Latvian branch mortgages were included Estonian covered bond programme).

	LATVIA 2020	LATVIA 2021	EU 27 2021
MACROECONOMIC VARIABLES			
Real GDP growth (%) (1)	-3.8	4.5	5.4
Unemployment Rate (LSF), annual average (%) (1)	8.1	7.6	7.0
HICP inflation (%) (1)	0.1	3.2	3.0
HOUSING MARKET			
Owner occupation rate (%) (1)	81.2	83.2	70.0
Gross Fixed Investment in Housing (annual change)(1)	-1.9	-15.4	6.6
Building Permits (2015=100) (2)	121.8	135.3	134.0
House Price Index – country (2015=100) (2)	145.8	162.1	145.2*
House Price Index – capital (2015=100) (2)	n/a	n/a	146.1*
Nominal house price growth (%) (2)	4.2	11.2	10.3*
MORTGAGE MARKET			
Outstanding Residential Loans (mn EUR) (2)	4,178	4,505	6,508,621
Outstanding Residential Loans per capita over 18 (EUR) (2)	2,699	2,935	17,782
Outstanding Residential Loans to disposable income ratio (%) (2)	21.5	21.8	62.8*
Gross residential lending, annual growth (%) (2)	0.0	0.0	12.2
Typical mortgage rate, annual average (%) (2)	2.6	2.4	2.0

* Please note that this value is the simple average of the available values in 2021.

Sources:
(1) Eurostat
(2) European Mortgage Federation - Hypostat 2022, 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 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 22 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

By Jonas Grincius, AB Šiaulių bankas
Disclaimer: this country report does not represent the views of the Bank.

IN A NUTSHELL

→ Economy grew by 4.8% after 0.1% fall in previous year.
→ Growing uncertainty related to the conflict in Ukraine.
→ Annual inflation of 21% in June 2022.
→ Record growth of new mortgage lending along with growth of real estate prices.
→ Bank of Lithuania introducing countercyclical measures to cool down real estate and mortgage markets.

MACROECONOMIC OVERVIEW

The economy rebounded from last year's decline of -0.1% to a growth of 5%. The growth was much higher than last year's Bank of Lithuania forecast of 2.9%. The main growth drivers were export related industries, while internal construction and stagnated. Unemployment dropped to 7.1% from 8.5% in 2020. The main challenge in 2021 was increasing energy, fuel, transportation and food prices. This drove the average inflation to 4.6% and year end inflation to 10.7%, against a forecast 1.5%-2%. Even before the impacts of the conflict in Ukraine, the comparison of actual 2021 figures to forecasts for this period by Bank of Lithuania and other industry experts show how dynamic and unpredictable the situation is.

LOOKING AHEAD

Due to the conflict in Ukraine, which began in February 2022, the outlook for 2022 is more pessimistic than in it has been at any time in the last decade. The ongoing situation in Ukraine raises many questions regarding the futureeconomic development of Lithuania and the region. Some direct investment projects have halted while others are quietly trying to sell their positions without causing market correction. The Lithuanian real estate market is no exception. The country is already facing construction material supply constraints. However, at the date of this report there is still an optimism in the local residential market, while close to 20% inflation and raising fuel prices are early indicators of the difficult time ahead.

HOUSING MARKETS

During the year the housing market experienced high growth fuelled by growing household income, low mortgage interest rates, a desire to protect saving in the high inflation environment and positive expectations about further price increases. Lithuania's biggest cities have been experienced price growth rates not seen from 2007. Apartment prices in five major cities (Vilnius, Kaunas, Klaipėda, Panevėžys and Šiauliai) increased on average 22.4%, compared that to last year's post pandemic growth of 4%.

The number of dwellings completions fell by 3.2%, to 6,596 units compared to 2020 growth of 4.7%, while construction permits increased by 37% in 2021, compared with 18% in 2020, and 3% in 2019. The counterintuitive decline in completed dwelling is related to the construction supply difficulties already experienced in 2021, the situation is expected to deteriorate.

MORTGAGE MARKETS

It was a record year for mortgage market growth – 11.6%. According to the Bank of Lithuania, outstanding mortgage loans at year end were EUR 10,204 mn, 11.6% more than 2020 (EUR 9,144 mn). New loan issuance grew by 39%, from EUR 1,582 mn to EUR 2,195 mn. Average mortgage rates continued to decline from 2.33% in 2020 to 2.16% in 2021. Mortgage lending has again become the focus of banks.

To counteract the mortgage market growth at the end of 2021 the Bank of Lithuania has introduced two countercyclical measures effective from July 2022. The down payment required for second properties increased from 15% to 30% and an additional 2% capital requirement was introduced for mortgages for banks with biggest exposures. According to the Bank of Lithuania calculations this will create about EUR 30 mn additional capital buffer.

MORTGAGE FUNDING

As in previous years, deposits remained the primary source of mortgage funding. Despite the majority of banks offering close to zero rate for EUR term deposits, deposits continued to grow. The competitive landscape is dominated by SEB, Swedbank, and Luminor (merged DNB and Nordea banks), who comprise 97% of the mortgage market, since all of them have strong parent banks they are in good position to provide relatively cheap mortgage funding in Lithuania based on local deposits and parent funding.

	LITHUANIA 2020	LITHUANIA 2021	EU 27 2021
MACROECONOMIC VARIABLES			
Real GDP growth (%) (1)	-0.1	5.0	5.4
Unemployment Rate (LSF), annual average (%) (1)	8.5	7.1	7.0
HICP inflation (%) (1)	1.1	4.6	3.0
HOUSING MARKET			
Owner occupation rate (%) (1)	88.6	88.6	70.0
Gross Fixed Investment in Housing (annual change)(1)	4.1	-1.4	6.6
Building Permits (2015=100) (2)	128.4	176.2	134.0
House Price Index – country (2015=100) (2)	141.2	163.8	145.2*
House Price Index – capital (2015=100) (2)	n/a	n/a	146.1*
Nominal house price growth (%) (2)	7.3	16.1	10.3*
MORTGAGE MARKET			
Outstanding Residential Loans (mn EUR) (2)	9,144	10,204	6,508,621
Outstanding Residential Loans per capita over 18 (EUR) (2)	3,984	4,442	17,782
Outstanding Residential Loans to disposable income ratio (%) (2)	28.0	29.3	62.8*
Gross residential lending, annual growth (%) (2)	7.0	38.8	12.2
Typical mortgage rate, annual average (%) (2)	2.3	2.2	2.0

* Please note that this value is the simple average of the available values in 2021.

Sources:
(1) Eurostat
(2) European Mortgage Federation - Hypostat 2022, 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 Leonardo Mancini, European Mortgage Federation – European Covered Bond Council

IN A NUTSHELL

→ The economy grew by 6.9%, unemployment decreased to 5.3% and inflation reached 3.5%. The general government balance was a surplus of 0.9% GDP.

→ House prices rose due to a supply and demand imbalance and low interest rates increasing borrowing capacity.

→ Outstanding residential mortgages and new lending recorded a new all-time high in 2021.

→ New LTV limits were introduced, alongside the Housing Pact 2.0 programme, to increase the supply of affordable and sustainable housing.

MACROECONOMIC OVERVIEW

The economy grew by 6.9%, mainly driven by the recovery of external and domestic demand, especially private consumption and investments. Unemployment decreased to 5.3% from 6.8% in 2020 mainly due to the government's short-time work scheme. According to the European Commission's Spring Forecast (from May 2022), the current conflict in Ukraine will hamper GDP growth, expected to reach 2.2%. In addition, there will be an indirect impact in terms of higher market volatility and lower consumer and business confidence.

The general government balance was a surplus of 0.9% GDP, revenues increased by 12.7% due to higher personal income tax and social contributions, public expenditures rose by 2.4%.

Inflation increased to 3.5%, due to higher energy prices and the introduction of a carbon tax. The European Commission forecasts inflation to increase in 2022 as a consequence of the war and commodity prices. However, over the medium term, the level of inflation is expected to be aligned with the inflation target of the European Central Bank (ECB), which stands at 2%.

HOUSING MARKETS

House prices rose by 13.9%, mainly due to the imbalance between supply and demand for housing and the low interest rate environment, which, for the second year in a row, continued to decrease, this year, to 1.32%. Per capita indebtedness continued to increase. Demand for housing has increased partly as a result of population growth in particular the arrival of new residents from abroad. In the Luxembourg canton alone, the average price for a house was almost double the price of an equivalent property in the north. The supply side, although anticipating the demand expansion, was not able to keep up with it, causing upwards pressure on houses prices.

After falling in 2020, the number of building permits issued in 2021 increased by over 19%. This has been helped by the Housing Pact 2.0, which came into force in January 2021 and aims to increase the supply of affordable and sustainable housing by mobilising existing land with potential for residential development and improving the quality of new, socially mixed developments.

The number of transactions in 2021 is the same of 2020, 6.835, the highest amount ever reached.

MORTGAGE MARKETS

The mortgage market continued to grow, reaching EUR 42 bn by year end. Gross residential lending fell by 2.8% after several years of growth reaching a total volume of EUR 10,378 bn. Continuing the trend since 2018, average interest rates fell, to 1.32% by year end. Variable interest rates fell by 6 bps, while average fixed interest rates increased by 8 bps. The volume of variable interest rates lent during the year was EUR 17 mn less than in the previous year, fixed loan origination decreased by EUR 67 mn.

The macroprudential authority introduced new legally binding loan-to-value (LTV) limits, a 100% limit for first-time buyers acquiring their main home; a 90% limit for other buyers for their main home and a 80% limit for other mortgages (including buy-to-let).

MORTGAGE FUNDING

Mortgages in Luxembourg are principally funded through deposits.

GREEN FUNDING

The Ministry of the Environment launched in 2017 the PRIMe House 2017 program, which provides grants for energy efficiency renovations to improve the long-term of residential buildings and incentivise of renewable energy sources. This scheme supports the renovation and adaptation of houses built in 2012 or earlier to new energy efficiency requirements. To receive the subsidy, benefiters (which can be people, companies or non-state public entities) must obtain a certificate from an energy consultant.

The subsidy is for single-family houses or units in multi-unit residential building. The government applies a reduced VAT rate of 3% instead of 17% to renovations of properties intended as a primary place of residence. This tax concession cannot exceed EUR 50,000 per home over 15 years.

	LUXEMBOURG 2020	LUXEMBOURG 2021	EU 27 2021
MACROECONOMIC VARIABLES			
Real GDP growth (%) (1)	-1.8	6.9	5.4
Unemployment Rate (LSF), annual average (%) (1)	6.8	5.3	7.0
HICP inflation (%) (1)	0.0	3.5	3.0
HOUSING MARKET			
Owner occupation rate (%) (1)	68.4	68,4	70.0
Gross Fixed Investment in Housing (annual change)(1)	-7.0	3.0	6.6
Building Permits (2015=100) (2)	112.2	133.9	134.0
House Price Index – country (2015=100) (2)	151.1	172.1	145.2*
House Price Index – capital (2015=100) (2)	n/a	n/a	146.1*
Nominal house price growth (%) (2)	14.5	13.9	10.3*
MORTGAGE MARKET			
Outstanding Residential Loans (mn EUR) (2)	38,958	42,433	6,508,621
Outstanding Residential Loans per capita over 18 (EUR) (2)	76,906	82,597	17,782
Outstanding Residential Loans to disposable income ratio (%) (2)	151.6	163.2	62.8*
Gross residential lending, annual growth (%) (2)	13.6	-2.9	12.2
Typical mortgage rate, annual average (%) (2)	1.3	1.3	2.0

* Please note that this value is the simple average of the available values in 2021.

Sources:
(1) Eurostat
(2) European Mortgage Federation - Hypostat 2022, 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

→ The economy began to recover from the effects of the pandemic assisted by the government's COVID-related support measures. In 2021, GDP rose by 10.4%, with the GDP level surpassing marginally its 2019 pre-pandemic level.

→ Residential property prices increased at an average annual rate of 5.3% during the first three quarters of the year, following the 3.4% increase recorded in 2020 as a whole.

→ Mortgages for house purchases continued to increase in 2021, reaching around EUR 6.5 bn.

MACROECONOMIC OVERVIEW

After the significant dips experienced in most economies as a result of the impact of the pandemic, economic activity locally increased significantly in 2021, following the strong decline in 2020. Thus, real GDP rose by 10.4%, after contracting by 8.3% a year earlier, with the expansion being largely underpinned by developments in domestic demand. The latter added 7.6 pps to GDP growth while the positive contribution of net exports was smaller. On the other hand, private consumption increased by 6.2%, after contracting by 10.2% in 2020, adding 2.8 pps to GDP growth. Meanwhile, net exports added 1.8 pps to GDP growth as exports outpaced imports. Also in 2021, government consumption grew by 6.1%, mainly due to higher outlays on compensation of employees and intermediate consumption. The latter partly reflected higher expenditure on health, which remained elevated due to treatment for COVID-19. The increase in outlays on compensation of employees reflected higher wages and allowances in the health sector as well as payment of arrears within public administration and defence following the signing of collective agreements.

During the first three quarters of 2021, employment expanded at an average annual rate of 2.0% compared to the 3.5% recorded during the corresponding period of 2020. This mostly reflected a year-on-year fall in employment in the first quarter of 2021 resulting from the impact of the pandemic. Employment continued to benefit from the ongoing normalisation of economic activity in the context of a tight labour market, although Government measures – such as the Wage Supplement Scheme – also provided support. Since then, employment levels recovered. The unemployment rate averaged 3.5% during the first three quarters of 2021, compared to 4.3% in the same period of 2020. Nevertheless, it continued to remain well below the average rate for the euro area, which stood at 8.0% in 2021 and also below the country's historical average.

Labour productivity rose by 7.7% in 2021, following a contraction of 10.8% in the previous year.

In the first three quarters of 2021, the general government registered a deficit of EUR 886.5 mn, EUR 76.2 mn lower when compared to the deficit recorded in the corresponding period of 2020. This was due to a significant increase in government revenue spurred by the economic recovery, which offsetted the rise in government expenditure. During the period under consideration, government expenditure remained elevated partly on account of COVID-related economic support measures and health-related outlays on testing, treatment and vaccination. When compared to the corresponding period a year earlier, government spending increased by EUR 328.5 mn or 7.6%.

When measured on a 4-quarter moving sum basis, the general government deficit-to-GDP ratio narrowed from 9.7% at end 2020 to 8.5% in the third quarter of 2021. Meanwhile, the government debt-to-GDP ratio continued to increase. Overall, it rose by 3.2 pps, compared to December 2020, reaching 56.6%. In contrast with 2020, when GDP had contracted sharply, the interest-growth differential exerted a debt-decreasing effect in the period reviewed.

In this period, the increases in deficit and debt ratio were more pronounced than those in the euro area. However, government's debt-to-GDP ratio remained well below that for the euro area.

HOUSING AND MORTGAGE MARKETS

The home-ownership rate continues to hover around the 80% mark i.e. 81.9% in 2021. The number of housing construction permits fell slightly in 2021 at 7,578 (7,837 in 2020 and 12,485 in 2019). Apartments were again by far the largest residential category, accounting for around 85% of new building permits issued in 2021.
Number of final deeds of sale by period of registration relating to residential property during 2021 rose significantly to 14,362 (11,057 in 2020 and 14,019 in 2019) with a relative value of EUR 3.1 bn (EUR 2.1 bn in 2020 and EUR 2.7 bn in 2019). The data presented covers the following property types: airspace, boathouse, bungalow, farmhouse, flat/apartment, garage, garden, house, maisonette, penthouse, plot of land, semi-detached villa, terraced house, 'terran' (groundfloor), urban tenement, and villa.
Residential property prices continued to increase during the first three quarters of 2021. 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 5.3% during the first three quarters of the year, following the 3.4% increase recorded in 2020 as a whole. House price inflation was significantly lower than that in the euro area where it averaged 7.2% in the first nine months of 2021.
Mortgages to residents totalled around EUR 6.5 bn at the end of 2021, up from EUR 5.8 bn in 2020. The core domestic banks effectively extended over 65% of the credit provided (which includes mortgage loans) to households and individuals. In 2021 average interest rates (Annual Percentage Rate of Charge) on new residential loans continued to ease to 2.68% (2.99% in 2020) while the median loan-to-value ratio appears to have remained around 80%.
In recent years, various factors contributed to the attractiveness of property investment such as: an increase in disposable income; an influx of foreign workers which increased demand for property and a growth in tourism which led to a strong demand for private accommodation.

Residential property prices continued to be supported by several factors, including the low-interest rate environment as well as the various government schemes supporting the property market. Furthermore, property prices were also supported by the enhancement of government support in response to the pandemic. This includes for instance the reduction in tax rate and stamp duty to eligible transfers of immovable property. In particular, the property tax and stamp duty on the first EUR 400,000 of the value of the transfer were reduced to 5.0% and 1.5%, respectively. These measures were initially intended for final transfers made before 1 April 2021 but were later extended for promise of sale agreements entered into until 31 December 2021. Additionally, the Budget for 2021 extended or introduced more favourable terms on some existing schemes supporting this sector.

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 (together with 3 other smaller institutions), but predominantly through Bank of Valletta plc and HSBC Bank Malta plc, which account for almost 78% of the domestic retail market (as a percentage of total deposits). These latter banks rely mainly on resident deposits for funding, which in 2021 increased to almost EUR 23 bn for the whole banking sector. Local retail deposits provide ample liquidity to the core domestic banks and with a low loan-to-deposit ratio at 55.1% (as at end 2021), local banks do not need to resort to securitisation or covered bonds for funding purposes.

GREEN FUNDING

During the last few 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 and Financial Stability Report 2021, NSO website and CBM website Monetary and Banking Statistics

	MALTA 2020	MALTA 2021	EU 27 2021
MACROECONOMIC VARIABLES			
Real GDP growth (%) (1)	-8.3	10.4	5.4
Unemployment Rate (LSF), annual average (%) (1)	4.3	3.5	7.0
HICP inflation (%) (1)	0.8	0.7	3.0
HOUSING MARKET			
Owner occupation rate (%) (1)	81.9	81.9	70.0
Gross Fixed Investment in Housing (annual change)(1)	-21.3	4.2	6.6
Building Permits (2015=100) (2)	198.6	192.0	134.0
House Price Index – country (2015=100) (2)	125.1	129.8	1452*
House Price Index – capital (2015=100) (2)	n/a	n/a	146.1*
Nominal house price growth (%) (2)	0.4	3.7	10.3*
MORTGAGE MARKET			
Outstanding Residential Loans (mn EUR) (2)	5,824	6,459	6,508,621
Outstanding Residential Loans per capita over 18 (EUR) (2)	13,462	14,884	17,782
Outstanding Residential Loans to disposable income ratio (%) (2)	n/a	n/a	62.8*
Gross residential lending, annual growth (%) (2)	n/a	n/a	12.2
Typical mortgage rate, annual average (%) (2)	2.6	2.7	2.0

* Please note that this value is the simple average of the available values in 2021.

Sources:
(1) Eurostat
(2) European Mortgage Federation - Hypostat 2022, 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 74% of domestic retail bank-ing (total assets) in Malta. All core domestic banks' (plus the 3 other above-mentioned banks') mortgage and consumer credit loans to household and individuals totalled around EUR 8.9 bn as at end 2021, with most of this figure comprising mortgages. In 2021, the share of mortgage lending granted by the core domestic banks rose to 53.7% of resident loans when compared to 51.2 % in 2020. The CBM's Financial Stability Report for 2021 (FSR) reported various interesting insights from the perspective of exposure to mortgages, in a Business Lending Survey that featured 4 banks representing 90% of overall domestic credit. In fact, it was observed that during the second half of 2021, domestic participant banks tightened credit standards for mortgages, mainly due to lower risk tolerance and tightening of lending standards while with respect to mortgage terms and conditions, in the last quarter of 2021, domestic participant banks reported some net tightening through a lower loan-to-value (LTV) ratio owing to higher risk perceptions and lower risk tolerance. Finally, the FSR noted that following the strong domestic mortgage demand during the second half of 2020 aided by the pandemic related fiscal incentives, developments were more contained in the first half of 2021, with demand declining in the second half of 2021. Maltese respondents noted that borrowers were using more of their own funds to purchase property, coupled with uncertainty on property market developments going forward.
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 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 in 2018 by the Central Bank of Malta in 2019 of CBM Directive No. 16 – Regulation on Borrower Based Measures, 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.
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 1.89 times (in 2021) GDP, provide over 90% of bank lending to residents in Malta, and collect around 74% of total banking 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;
What is the level (if any) of government subsidies for house purchases in your country?	The Maltese Housing Authority currently provides the following schemes: (a) Grant to Assist Owners in the Construction and/or Completion or Rehabilitation of their First Home; (b) Installation of lifts in Government owned residential blocks/entrances; (c) Rent Subsidy in Private Rented Residences; (d) Scheme for Persons with Disability; (e) A Scheme to encourage residents of apartments/terraced houses and maisonettes owned by the Housing Authority and the Government Property Department to become owner occupiers and continue using the property as their ordinary residence; (f) Subsidy on Adaptation Works in Residences occupied by Owners or Tenants; (g) Subsidy on Adaptation Works related to dangerous structures in Private Dwellings Held on Lease or Emphyteusis; (h) Redemption of Ground Rent, (i) Equity Sharing Scheme which applies for persons over the age of 40, who intend to buy their residence by purchasing at least 50% of the property whilst the rest will have to be purchased by them at later stage (j) a scheme which includes an allocation of funds specifically for the restoration of streetscapes that are located within Urban Conservation Areas (UCAs). As in previous years, the scheme is also open to owners of privately owned residential properties situated within Urban Conservation Areas (UCAs) and Grade 1 and Grade 2 scheduled buildings (k) a Scheme to entertain proposals from owners of vacant residential property who wish to lease their property to the Housing Authority for the purpose of social housing. The Maltese Housing Authority 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), Nico de Vries (ING) and Piet Hein Schram (EEM NL Hub)

IN A NUTSHELL

→ Young first-time buyers exempted from transfer tax.

→ Shortages result in falling house transactions after first quarter.

→ House prices increase to record level.

MACROECONOMIC OVERVIEW

The economy expanded by 4.9%, with GDP recovering fully from the pandemic and at a faster rate than in peer economies. The second lockdown had a substantial negative effect on economic activity in the first quarter of 2021, but GDP remained stable during the third lockdown in the fourth quarter. International trade performed particularly well: goods exports grew (8.6% year-on-year) while service exports fell further (-4.0%). Pandemic containment measures and consumer hesitancy reduced household consumption substantially in the first quarter, but hardly in the fourth.

Household consumption grew by 3.6%. Government consumption was a driver of growth, including creating employment in covid testing and vaccination facilities. Public investment fell by 2.0%, with some infrastructure projects delayed due tightener environmental policies, while private investment partially recovered with 4.3% growth. Expenditure on ICT equipment, machinery and software & databases expanded particularly.

HICP-inflation accelerated during 2021, due to increasing energy and fuel prices, to 2.8%. As unemployment was temporarily higher due to the first lockdown of spring 2020, contractual wages increased by only 2.1% in 2021. Unemployment fell quickly, from 5.5% in the third quarter of 2022 to 4.2% by year end, even below the level of 2019. The number of bankruptcies reached new record lows, as generous government support for businesses and employment was maintained for the full year (although it was initially intended to stop by the end of September).

The new government that came into power in February 2022 had expansionary policies and maintained the bulk of covid support measures until March 2022.

LOOKING AHEAD

Shortages are ongoing. Demand continues to rise due to demographic effects in particular an increase in young buyers and increase of one-person households and the supply side lags despite government actions and is hampered by green and emission regulations. Furthermore, the ageing population continues to occupy larger homes in the absence of smaller 'elderly' houses and the small not social housing rental sector.

However, high energy prices inflation generally and the increase in mortgage rates will reduce housing affordability housing, resulting in a slower increase of the house prices.

The social problem of lack of affordable housing will grow, which, in combination with the ongoing refugee inflows, will put a strain on Dutch society.

HOUSING MARKETS

CHANGES IN TRANSFER TAX RESULT IN FEWER INVESTMENTS

The housing market was dominated by changing transfer tax regulations. Young buyers up to the age of 35 are exempt from transfer tax from 1 January 2021. From 1 April, this exemption only applies to purchases under EUR 400,000. Investors - buyers who are not going to live in the house or are a business - pay 8% transfer tax. Individuals who buy a home for their own use pay 2%.

These changes and the deterioration in available returns for investors as house prices have risen have resulted in house purchases by investors falling by 41% whilst purchases by first time buyers increasing by 12%. Young buyers are particularly evident in the cheaper suburbs than the urban areas.

NUMBER OF HOMES SOLD AT RECORD LEVEL, DECREASING

In the first quarter of the year, there was a further increase in the number of transactions (+ 15,048 compare to 2020Q1), a trend had been going on for eight years. In the 12 months until the end of April, a record number of homes were sold (250,659). After which, the rate slowed. Over the whole year 226,087 homes were sold, 4% less than in 2020.

HOUSE PRICES RISE BY RECORD PERCENTAGES

House prices rose by 15.2% in 2021, from 7.8% in 2020. Only in 1999 and 2000 did prices rise faster. This is mainly the result of high demand evidenced by a very high numbers of transactions. .The relationship between the demand for and the supply of housing is historically tight. The tight indicator for the Dutch owner-occupied housing market fell in 2021 from 1.7 in Q1 to 1.3 in Q4. This indicator indicates that a buyer can choose from 1.3 properties. The normal shortage for the Netherlands is 5.0.

Price rises in Amsterdam has been below average since the 2nd quarter of 2019, This trend may have been caused by changes in housing preferences, as people increasingly prefer houses outside big cities.

House prices are rising much faster than household income, as has been shown for six years in statistics on the accessibility of owner-occupied houses. For example, an average household with a gross income of 60,000 euros was able to buy 70% of all homes for sale in 2017, by 2021, that percentage had dropped to 38%.

MORTGAGE MARKETS

MARKET DYNAMICS

There was a record amount of new mortgage originations, EUR 163 bn according to the Land Registry, an increase of 17.4% y-o-y. Rapidly rising house prices combined with relatively high transaction volumes pushed up the origination volumes for mortgages for the purchase of a house. This was largely driven by first-time buyers (up 36.5% y-o-y), who benefitted from a cut in transfer tax, whilst subsequent buyers' volumes grew less rapidly (7.3% y-o-y). Moreover, continued low mortgage rates through the year drove strong refinancing (and further advance) activity, which rose by 27.1% y-o-y.

The average LTV for all new mortgage applications at Hypotheken Data Netwerk declined in 2021 to 61.8%, from 68.5% in 2020. An important contributor to this is the high share of (typically low LTV) non-purchase mortgages (refinancings, second mortgages, further advances). Nevertheless, the average LTV ratio for mortgages for the purchase of a house also declined to 79.6%, from 83% in 2020, as house price growth exceeded growth in borrowing capacity, requiring greater own funds. The average debt-to-income (DTI) ratio was virtually unchanged in 2021 at 3.55x compared to 3.54x in 2020. However, DTI ratios for home purchases increased to 4.43x, from 4.2x in 2020 as the sharp house price increases led to more borrowing relative to income.

Mortgage interest rates started 2021 at historical lows but declined further during the year until Q4 before subsequently rising slightly. Despite these relatively minor movements, mortgage rates were ultimately quite stable throughout the year, this despite rising swap rates compressing margins as competition remained fierce. The low rates caused refinancing activity to remain high, the small rise in rates towards the end of the year saw a new spike in refinancings. The share of interest-only (IO) loan parts continued to rise because of the increase in refinancings, typically older loans that feature more IO, but a similar trend was observed for house buyers for whom IO reduces monthly payments. Mortgage applications with a majority IO loan part rose to 42.1%, from 35.6% in 2020. Finally, long fixed-rate periods remained the norm in 2021 with the 20 year fixing the most popular and 30 year fixings becoming more popular at the expense of 10 year fixings. Nearly 75% of new mortgage application volumes in 2021 were fixed for 20 years or longer.

NON-MARKET LED INITIATIVES

The most important fiscal change was the abolition of the transfer tax on the purchase of a house for young buyers. As of 1 January 2021, buyers under the age of 35 (both first-time and subsequent buyers) no longer have to pay transfer tax, previously 2% of the purchase price, when purchasing a house (the tax cut can only be granted once). As of 1 April 2021, only homes less than EUR 400,000 have been eligible for this. The tax changes led to a record high number of home sales in the first quarter and a disproportionate number of homes above EUR 400,000 were bought ahead of the tightening of the rules in April. Consequently, origination volumes were also distorted by the transfer tax changes, with first-time buyer origination volumes up significantly y-o-y.

The statutory underwriting norms changed slightly in 2021. The LTV remained capped at 100% (106% when financing energy saving measures) but the DTI rules were eased somewhat. For dual-income households the second income counted for 90%, up from 80% in 2020 and student debt was treated more favourably. The deductibility of interest payments from taxable income continues to be reduced as planned. Over the next years, the deduction rate decreases by 3.0 ppts per annum. The deduction rate was equal to 43% in 2021 (46% in 2020) and as of 2023, the maximum deduction rate will remain stable at (roughly) 37.0%. The effects of this change are expected to remain moderate.

MORTGAGE FUNDING

The mortgage lending landscape is diverse. New originations came from banks (53.5%), third-party originators (22.6%), insurers (13.6%), foreign parties (6.7%) and others (3.7%). Banks have varied funding sources, the majority is from customer deposits, followed by wholesale funding. According to the EBA, deposits comprised 56% of funding, long-term secured/unsecured debt 21%, repos/interbank deposits 12% and short-term debt 5%. Continued high deposit levels and TLTRO uptake continued to reduce banks' needs for wholesale funding. Covered bonds remain the preferred wholesale funding tool for mortgages due to low funding costs and asset-liability matching. Smaller banks are mainly funded by deposits, and covered bonds for their wholesale funding, although some also use securitisations. At the end of 2021, the total outstanding of non-retained EUR benchmark covered bonds of Dutch banks was EUR 61.2 bn. For non-banks, mortgage funding is diverse. Insurers invest for their own book whilst third-party originators are funded by institutional investors, e.g. forward flow mandates. Meanwhile, a number of small, non-bank lenders are largely funded by a combination of bank warehouse facilities and Prime RMBS.

GREEN FUNDING

Nearly all financial institutions have signed the Dutch climate agreement (commitment to work towards the 2050 Paris Agreement objectives). As for most Dutch institutions their mortgage loan book is the largest portfolio on their balance sheet, sustainability is key.

This has triggered nearly all traditional mortgage lenders to add sustainability or renovation product features to their mortgage offering in recent years and publicly state their ambitions to improve the energy efficiency of their mortgage loan book.

In addition, several new mortgage lenders have entered the market only providing 'green' mortgage loans: often offering clients a lower interest rate if the underlying property is energy efficient or a renovation is undertaken. In September the Energy Efficient Mortgages NL Hub (EEM NL Hub) was launched: an initiative by many stakeholders active in the mortgage market to support and promote the acceleration and adaptation of energy efficient housing in the Netherlands, and the financing thereof.

23 members and more than 20 affiliated members have been meeting on a regular basis to interpret section 7 of the EU Taxonomy for the Dutch market to arrive at a common understanding and application of the screening criteria. The aim is to create transparency and work together to collect and unlock the data necessary for the reporting requirements of the EU Taxonomy and SFDR. The objective is that a common definition and application of section 7 of the EU Taxonomy and consistent reporting thereof, will enhance the transparency of the overall market, mortgage loan books of originators and the related funding transactions.

The EEM NL Hub works closely with the Energy Efficient Mortgages Initiative (EEMI) and aims to publish a first version of the Dutch Framework for Energy Efficient Mortgages in 2022.

	NETHER-LANDS 2020	NETHER-LANDS 2021	EU 27 2021
MACROECONOMIC VARIABLES			
Real GDP growth (%) (1)	-3.9	4.9	5.4
Unemployment Rate (LSF), annual average (%) (1)	3.8	4.2	7.0
HICP inflation (%) (1)	1.1	2.8	3.0
HOUSING MARKET			
Owner occupation rate (%) (1)	69.1	69.1	70.0
Gross Fixed Investment in Housing (annual change)(1)	-0.6	3.3	6.6
Building Permits (2015=100) (2)	120.8	135.9	134.0
House Price Index – country (2015=100) (2)	141.9	163.4	145.2*
House Price Index – capital (2015=100) (2)	162.1	180.2	146.1*
Nominal house price growth (%) (2)	7.9	15.2	10.3*
MORTGAGE MARKET			
Outstanding Residential Loans (mn EUR) (2)	751,949	785,288	6,508,621
Outstanding Residential Loans per capita over 18 (EUR) (2)	53,442	55,442	17,782
Outstanding Residential Loans to disposable income ratio (%) (2)	180.8	178.6	62.8*
Gross residential lending, annual growth (%) (2)	13.3	17.4	12.2
Typical mortgage rate, annual average (%) (2)	1.89	1.70	2.0

* Please note that this value is the simple average of the available values in 2021.

Sources:
(1) Eurostat
(2) European Mortgage Federation - Hypostat 2022, 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?	No available
Which entities hold what proportion of outstanding mortgage loans in your country?	No available
What is the typical LTV ratio on residential mortgage loans in your country?	Unknown; maximum LTV in 2021 is 100% (106% when financing energy saving measures).
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?	No available
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 325,000 and meeting certain conditions, the NHG guarantees the payback of the remaining mortgage debt in case of foreclosure (again subject to certain conditions).

Poland

By Agnieszka Nierodka, Polish Bank Association

IN A NUTSHELL

→ Record levels of residential construction and mortgage lending.

→ Strong macroeconomic fundamentals (low unemployment, rising wages).

→ Inflation significantly exceeding the target creating challenges in coming years.

→ Large increases in real estate prices and tightening credit policy towards year end will make it harder to ensure the availability of housing loans in coming years.

MACROECONOMIC OVERVIEW

The pandemic caused the first recession in 30 years, GDP fell by 2.2% in 2020 but recovered already in the second half of 2021 and yearly GDP growth reached 5.9%. Domestic demand, the main driver of GDP growth - increased in real terms by 8.2% compared to 2020, when it decreased by 3.4%. Total consumption increased in real terms by 4.8%, including household sector consumption, which grew by 6.2% (in 2020 , both indicators decreased by 1.1% and 3.0%, respectively). Gross fixed capital formation increased by 8% (compared to a 9% drop in 2020).Investment relative to GDP was 16.6% (as in 2020).
The labour market remained good - according to Eurostat data, the unemployment rate was 3.4%, the second lowest in the European Union.

A problem of particular importance was rising inflation, which averaged 5.2% per year, the highest level in the EU. In December 2021, it was 8%, the highest in 21 years. As a result, the National Bank of Poland started in the second half of the year a series of moderate increases in the reference interest rate, which reached 1.75% by year end.

LOOKING AHEAD

After record low interest rates introduced in 2020, rates rose in the last quarter of 2021, specifically - interbank rates (WIBOR 3M), which increased at a faster pace than NBP reference rate. At the start of 2021, the average mortgage loan rate was 2.8%, by the end of the year, it was 4.6%. As a result of this and the worsening economic outlook most banks in the last quarter of the year started tightening their mortgage lending criteria.

Although in the largest cities 50 to 60% of residential purchases are made either with cash or a small mortgage, ensuring housing affordability in the face of rising mortgage rates will be a major challenge in coming years. Given the soaring prices of construction materials in 2020 - a significant correction in housing prices is not expected for 2021, although a slowdown in the rate of residential construction is likely.

The last quarter of 2021 closed a period in which the main sectoral risks were rising prices and costs of residential construction. Currently, activity has been significantly impacted by rising interest rates interest rates and factors related to the conflict in Ukraine.

HOUSING MARKETS

Levels of residential construction were very high; nearly 235,000 dwellings were completed, with a total floor area of 21.8 mn m2. Compared to the previous year, dwelling completed increased - by 14.1 thousand (6.4%), as did the floor area - by 2.2 mn m2 (11.3%)- and the total number of rooms - by 84.8 thousand (10.2%).

High estimated rates of return on housing projects and sustained investment and consumer demand contributed to a significant increase in the number of new construction and applications for residential building permits. The construction of 277.400 dwellings started, 53,600 more dwellings (23.9%) than in the previous year. Construction permits were issued for 341,200 dwellings, an increase of 65,100 dwellings (23.6%). The average forecast apartment area was 93.5 m2 , an increase of 1.2 m2 compared to the previous year.

The share of new construction in large cities decreased slightly(23% share compared to 24% in 2020) and in Warsaw (10% share compared to over 11% in 2020). Conversely, the number of new buildings in the rest of Poland increased (52% share compared to 51% in 2020) and 10 big cities (15% share compared to 14% in 2020).

Prices increased both on the primary and secondary markets.
On the primary market, price increases were mainly double digit, in the secondary market prices also increased, although at a slower pace.

In relation to 2020, the largest increases in the yearly average transaction price of flats were recorded in:
- Primary market: Szczecin: 17.9%, Lublin: 16.5%, Zielona Góra: 16.3% (Warsaw: 10.8%)
- Secondary market: Kraków: 14.3%, Wrocław: 13.3%, Kielce: 12.5% (Warsaw: 7.7%).

MORTGAGE MARKETS

It was a very good year for both the mortgage and housing markets. Banks granted nearly 256,500 new housing loans, the most since 2008, although the last quarter saw some lending weakening.

The total number of mortgages outstanding at year end was over 2.54 mn with a total value of over PLN 511 bn (PLN 477 bn in 2020). The average value was nearly PLN 335,000 – a record high and an increase of over 12%. In Q4 , the average loan reached PLN 350,000, reflecting the growth of property prices.

Loans with the highest LTV (over 80%) are the most popular and accounted for 30.5% of all new loans. The credit quality remained stable – the ratio of NPLs amounted to around 2.31% (compared to 2.46% at the end of 2020).

Due to rising property prices and interest rates the index of estimated housing availability[1] in Warsaw and six large cities decreased slightly by the end of 2021 to 0.7 sq. m., but was still about 0.3 sq. m. higher than the minimum recorded in Q3 2007.

Most mortgage loans are at variable rates. To increase the popularity of fixed

[1] Housing affordability index is a measure of the number of square meters that can be purchased in the 7 largest cities with an average months wages .

rate loans with periodically fixed rate, the Polish Financial Supervision Authority (PFSA or KNF in Polish) ordered that from 01/07/2021 each bank (except cooperative banks) should offer loans with an interest rate fixed for a minimum 5 years). As a result, nearly 16,000 such agreements were signed. In total at the end of 2021, there were over 30 thousand fixed rate loans.

REGULATORY ISSUES

In July 2021 the new version of "Recommendation S concerning good practices related to mortgage-secured credit exposures" came into force. Apart from the above provisions regarding fixed interest rates, the PFSA expects that, when verifying the creditworthiness of a mortgage loan borrower, banks must calculate it for a maximum period of 25 years. The earlier version of the Recommendation S allowed that period to be 30 years.

Since 2014, Polish banks are obliged to match the currency of the mortgage loan with the currency of the borrower's main income. According to the amended version of Recommendation S, if the borrower earns their income in a foreign currency, when calculating creditworthiness, foreign income must be artificially depreciated by 50% to protect against the exchange rate risk (previously this was 20%).

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 2021, 4 already existing mortgage banks (mBank Hipoteczny S.A., PKO Bank Hipoteczny S.A., Pekao Bank Hipoteczny S.A, and ING Bank Hipoteczny S.A.) were joined by another one: Millennium Bank Hipoteczny S.A.

	POLAND 2020	POLAND 2021	EU 27 2021
MACROECONOMIC VARIABLES			
Real GDP growth (%) (1)	-2.2	5.9	5.4
Unemployment Rate (LSF), annual average (%) (1)	3.2	3.4	7.0
HICP inflation (%) (1)	3.7	5.2	3.0
HOUSING MARKET			
Owner occupation rate (%) (1)	85.6	85.6	70.0
Gross Fixed Investment in Housing (annual change)(1)	-0.3	11.5	6.6
Building Permits (2015=100) (2)	148.8	184.3	134.0
House Price Index – country (2015=100) (2)	144.4	158.2	145.2*
House Price Index – capital (2015=100) (2)	158.4	173.8	146.1*
Nominal house price growth (%) (2)	11.7	9.6	10.3*
MORTGAGE MARKET			
Outstanding Residential Loans (mn EUR) (2)	104,607	111,423	6,508,621
Outstanding Residential Loans per capita over 18 (EUR) (2)	3,370	3,604	17,782
Outstanding Residential Loans to disposable income ratio (%) (2)	32.3	33.2	62.8*
Gross residential lending, annual growth (%) (2)	6.3	45.0	12.2
Typical mortgage rate, annual average (%) (2)	3.5	3.1	2.0

* Please note that this value is the simple average of the available values in 2021.

Sources:
(1) Eurostat
(2) European Mortgage Federation - Hypostat 2022, 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?	30.59% of new loans granted in 2021 had LTVs over 80%; 48.90% - LTVs between 50-80%; 6.53% - LTVs between 30-50%; 13.99% - 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?	Variable rate mortgage credit for residential purpose.
What is the typical/average maturity for a mortgage in your country?	Between 25 and 35 years (according to yearly data, around 63% of new lending belongs to that range in 2019).
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

- The House Price Index (HPI) increased 9.4% by end 2021, above the growth in 2020 (+8.4%), while index reached a new historical maximum, with continued signs of overvaluation in the residential real estate prices observed since 2018.
- The residential real estate market has seen increased prices and transactions, whilst the commercial real estate market, had an unclear trend, with price and transaction volume drops in some segments.
- The shortage of housing supply resulted from reduced construction activity in the years before the pandemic. External demand and the growth of housing credit in 2021 also contributed to the rise in residential property prices.
- In recent months there has been an increase in construction costs, associated with a shortage of labour and materials, exacerbated by the conflict in Ukraine, and constitutes an additional upward pressure on prices of residential real estate.
- New loans to households for house purchase reached the highest value since 2007, EUR 15.3bn with an average interest rate of 0.82%, while the NPL ratio of this segment decreased from 2% to 1.6% by the end of the year. Portuguese banks increased their balance sheet by 8%, mainly reflecting the inflows from customer deposits and central bank funding.

MACROECONOMIC OVERVIEW

Gross domestic product (GDP) grew by 4.9% in 2021, above the majority of estimates and higher than that expected in the last quarter of the year, but especially an upward revision of the historical GDP data since the beginning of the year. This was the highest growth rate since 1990, but it took place after the contraction of 8.4% in 2020 (worse than the accumulated recession during the height of the euro area crisis of 2009-2014), following the adverse effects of the pandemic on economic activity.

This return to economic growth was accompanied by a reduction of the unemployment rate (from 6.9%. in 2020 to 6.6% in 2021), an increase in inflation (measured by the harmonised consumer prices index (HCPI), from -0.1% in 2020 to 0.9% in 2021) -albeit much less than in most of the euro area countries- reduction of the budget deficit, from 5.8% in 2020 to 2.8% of GDP in 2021, and of the public debt ratio, from 135.2% in 2020 to 127.4% of GDP in 2021 and a maintenance of the current balance deficit (1.1% of GDP), with the saving rate of households falling (from 12.6% in 2020 to 10.9% in 2021), after the marked rise observed in 2020 (from 7.2% in 2019), at that time strongly influenced by the decline of consumption arising from the pandemic context.

LOOKING AHEAD

The Portuguese economy should remain on its path of recovery during 2022, with real GDP growth projected at 4.9% (4.9% in 2021), according to the most recent estimates published by Banco de Portugal in March 2022, a forecast that is in line with the estimates assumed by the Portuguese Government in April 2022 and as with Montepio's previous forecasts (however, the strong and unexpected growth of 2.6% in the 1st quarter of 2022 caused an upward revision of Montepio's 2022 growth forecast to a centre of the forecast range of 5.4%). This growth projection takes place in against the backdrop of the conflict in Ukraine, which brings in high uncertainty, and strong risks concerning the evolution of oil prices, the effects on inflation and indirect impacts (e.g., on wages) of the rise of commodity prices and the duration of the war.
Economic growth in 2022 will continue to benefit from the implementation of the Recovery and Resilience Plan ("PRR") and the maintenance of the still favourable financial conditions. The growth of private consumption will continue to be sustained by the increase of disposable income, while exports should continue to benefit from the international flows associated with tourism, assuming limited effects of the conflict in Ukraine, with exports of services surpassing the pre-pandemic value during the first half of 2022.

Note that, in the case of the Portuguese economy, the ongoing conflict in Eastern Europe has led to a downward revision of GDP growth in 2022. The impact of the conflict on economic activity should be experienced via net exports, reflecting the slowdown of Portugal's main economic partners, which are primarily European, as well as via investment and private consumption, with enhanced uncertainty and the increased price of energy and other commodities affecting investment and consumption decisions. The effects on private consumption may, however, be dampened by the savings accumulated in 2020 and 2021 (when the use of this surplus saving was not previously considered).

The impact of the war on commodity prices, especially of oil and natural gas, led to an upward revision of the Banco Montepio forecast of the inflation rate (measured by the HCPI) for 2022, from 2.4% to a range from 5.2% to 6.2%, with the centre of the forecast range (+5.7%) being well above the 4.0% forecast by Banco de Portugal and the Portuguese Government.

HOUSING MARKETS

According to the analysis by Banco de Portugal carried out in the Financial Stability Report (REF) of December 2021, the residential real estate market has been characterised by an increase in prices and transactions, unlike the commercial real estate market, where the trend was unclear, with price and transaction volume drops in some segments. Signs of overvaluation have continued in the residential real estate prices observed since 2018, with some indicators stabilising against recent highs. Similarly to what was observed in Europe, prices in the residential real estate market continued to increase during the period of the pandemic, although showing some slowdown.

However, Banco de Portugal estimates (regarding the overvaluation of residential property prices) do not include determining factors, such as demand by non-residents and demand for tourist activities, which contributed to the price increases in the period preceding the pandemic crisis that should be taken into account when evaluating market overvaluation. In 2019, non-residents accounted for 13% of the total value of property acquisitions in Portugal and the growth of the tourism sector in recent years has intensified the demand for residential real estate, with the increase in new registrations of "Local Accommodation" contributing to the market dynamics and the appreciation of residential real estate assets (albeit to a limited extent, according to Banco de Portugal's analysis).

Foreign direct real estate investment grew by 8.2% in 2020 (+10% in 2019), but, according to Banco de Portugal data, in the first half of 2021 it fell by 12% compared to the same period in 2019. Investment in real estate, through the golden visa programme, continued to be significant in 2020 and 2021, possibly anticipating the end of the scheme in the regions of Lisbon, Porto and Algarve, scheduled for the beginning of 2022. Since the implementation of the scheme in 2012, it has represented 40% of foreign direct investment in the real estate sector.

According to the latest data from Statistics Portugal, in 2021, the House Price Index (HPI) increased 9.4% reaching historical maximum levels. This rate of change was 0.6 pps higher than in 2020. The price increase was more intense in existing dwellings (+9.6%) than in new dwellings (+8.7%). In 2021, 165,682 houses were sold, 20.5% more than in 2020. In this period, the value of transactions totalled EUR 28.1 bn, corresponding to a growth of 31.1% compared to the previous year. Existing dwellings sales increased by 22.1% and 34.2%, respectively, in the number and value of transactions. There was a 12.9% increase in the number of new dwellings sales and a 21.7% increase in value. In 2021, purchases of dwellings by households represented 85.6% and 85.7%, respectively, of the total number and value of registered transactions. In the period from 2019 to 2021, the value of dwelling sales to tax residents reached EUR 64.8 bn (89.8% of the total).

The shortage of housing supply – as a result of reduced construction activity in the years before the pandemic –, external demand and the growth of housing credit in 2021, have contributed to the rise in residential property prices. In recent months, there has also been an increase in construction costs, associated with a shortage of labour and materials, which was exacerbated by the conflict in Ukraine and creates additional pressure on prices of residential real estate.

The median value of bank appraisals was EUR 1,231 per square meter, up by 9.0%. Appraisal value growth was observed in all NUTS II (Nomenclature of Territorial Units for Statistical Purposes)regions – there are seven NUTS II regions (North, Centre, Lisbon Metropolitan Area, Alentejo, Algarve and the two autonomous regions of Madeira and Azores) –, with the Lisbon Metropolitan Area showing the greatest increase (+8.7%), followed by the Algarve (+7.6%), the North (+7.6%) and the Autonomous Region of Madeira (+6.8%). The Autonomous Region of the Azores showed the smallest increase (+3.9%), followed by the regions of Alentejo (+4.4%) and of the Center (+5.3%).

According to Statistics Portugal for the Commercial Property Price Index (IPPCom), in 2021 commercial property prices increased 5.1%, 2.3 pps more than the rate observed in 2020. This was the highest price increase since 2010. Similarly to what has been happening since 2016, the growth in commercial property prices was less intense than that observed in residential property prices (+9.4%). However, commercial property price evolution is underpinned by sectoral heterogeneity (for example, retail properties devalued in 2020 due to Covid-19 restrictions). Despite the pandemic, investment in commercial real estate continued to be significant, totalling EUR 2.7 bn in 2020 and EUR 1.2 bn until September 2021 (according to Banco de Portugal data), which compares with EUR 3.3 bn in 2019. In 2021, international investors represented 70% of this segment.

Finally, 25,100 buildings were licensed, and 15,200 buildings completed, annual increases of 8.9% and 4.1%, respectively (-4.3% and +3.8%, in 2020). In comparison with 2019 (pre-pandemic period), the increases were 4.2% for building permits and 8.0% for completed buildings.

MORTGAGE MARKETS

New loans to households for house purchase reached the highest value since 2007, at EUR 15.3 bn, a 34% increase from 2020, according to Banco de Portugal. The monthly average interest rate in these new loans reached a minimum of 0.76% in February 2021 and rose thereafter finishing the year at 0.83%. The average interest rate for the loans to households for house purchase was 0.82%, a 0.17pp decrease compared to 2020. The stock of outstanding residential mortgage loans increased 2%.

Demand for loans for house purchase increased through the year, as a result of an increase in consumer confidence and low interest rates. From a supply-side standpoint, credit standards reported by the credit institutions did not change during 2021, although the terms and conditions eased slightly in loans to households for house purchase, during the second quarter of 2021, due to higher competition and decreased risk perception.

The ratio of non-performing loans (NPL) continued to decrease, from 4.9% at year-end 2020 to 3.6% at the end of 2021. The NPL ratio for house purchase loans also decreased, from 2% at year-end 2020 to 1.6% at the end of 2021, due to the reduction of the stock of those loans by 16%. The coverage ratio of the non-performing mortgage loans increased 200 basis points, since the end of 2020, to 32.6% at the end of 2021.

In 2018, Banco de Portugal, as the national macroprudential authority, issued a recommendation introducing limits on new loans to consumers, namely for house purchase. This recommendation, slightly updated in 2020, is based on the "comply or explain" principle and includes four different limits to some of the criteria that institutions should comply with in the assessment of the borrower's creditworthiness when granting credit.

The first is a limit on the Loan-to-Value ratio (LtV), where new credits for house purchase, or construction of own residence, are capped at 90% or 80% if the loan relates to residential immovable property or is secured by a mortgage or equivalent guarantee but with other purposes. In the case of foreclosures, the limit increases to 100%.

The second is a limit on the debt-service-to-income ratio (DSTI) of 50%, although up to 10% of the contracts may extend this limit to 60%. Just 5% of the total contracts may not comply with these limits. The calculation of the DSTI must consider constant monthly instalments for the entire maturity of the contracts, while for mixed and variable rate contracts, the impact of a rise in interest rates shall be considered. Also a decrease in income must be assumed if the borrower is older than 70 years at the maturity of the contract.

The third sets the maximum maturity on new credits at 40 years and states that the average maturity in new credit agreements should gradually converge to 30 years by the end of 2022.

Finally, new loans should be granted with regular payments of interest and capital. These measures have contributed to the prevention of pockets of high credit risk in the mortgage market and data suggests that institutions are generally complying with the macroprudential recommendation, except for the converging maturity to 30 years at the end of 2022. For this reason, at the beginning of 2022, Banco de Portugal imposed new restrictions on the maturity of the new loans for house purchase according to the borrower's age.

MORTGAGE FUNDING

According to Banco de Portugal, there were favourable financing conditions for Portuguese banks in 2021, with the overall balance sheet increasing by 8% at the end of the year compared to the end of 2020, a faster pace than in the previous year, mainly reflecting the inflows from customer deposits and central bank funding, which grew by 9% and 29%, respectively. The increase in deposits from customers was the biggest in the previous decade with contributions from both Households and Non-financial companies. The banking system liquidity position remained at comfortable levels, with a loan to deposit ratio of 81.2% at the end of 2021, decreasing (84.7% at the end of 2020 and 87.1% at the end of 2019) due to the growth in the deposits. The liquidity coverage ratio was 259.9%, increasing from 245.9% at the end of 2020 and from 218.5% in 2019, due to the increase in highly liquid assets. Funding from central banks rose to 9.4% of total assets in 2021 (7.8% at the end of 2020 and 4.4% at the end of 2019) partially compensated by the decrease in wholesale funding from 7.2% of total assets at the end of 2020 to 6.1% at year-end of 2021.

GREEN FUNDING

In 2021, for the first time ever, the Portuguese banking sector issued EUR 1bn of sustainable bonds. Half of this value was issued in a sustainable finance bond whose proceeds will be channelled to loan operations in environmental and socio-economic areas while the other half corresponds to an ESG bond, focusing on the social component (social bond), the net proceeds will be applied to the financing and/or refinancing of loans granted under the COVID-19 lines.

	PORTUGAL 2020	PORTUGAL 2021	EU 27 2021
MACROECONOMIC VARIABLES			
Real GDP growth (%) (1)	-8.4	4.9	5.4
Unemployment Rate (LSF), annual average (%) (1)	6.9	6.6	7.0
HICP inflation (%) (1)	-0.1	0.9	3.0
HOUSING MARKET			
Owner occupation rate (%) (1)	77.3	77.3	70.0
Gross Fixed Investment in Housing (annual change)(1)	-6.6	8.9	6.6
Building Permits (2015=100) (2)	303.5	343.5	134.0
House Price Index – country (2015=100) (2)	154.8	172.8	145.2*
House Price Index – capital (2015=100) (2)	144.7	n/a	146.1*
Nominal house price growth (%) (2)	8.0	11.6	10.3*
MORTGAGE MARKET			
Outstanding Residential Loans (mn EUR) (2)	96,176	98,149	6,508,621
Outstanding Residential Loans per capita over 18 (EUR) (2)	11,211	11,417	17,782
Outstanding Residential Loans to disposable income ratio (%) (2)	65.6	73.1	62.8*
Gross residential lending, annual growth (%) (2)	7.3	34.1	12.2
Typical mortgage rate, annual average (%) (2)	0.8	0.8	2.0

* Please note that this value is the simple average of the available values in 2021.

Sources:
(1) Eurostat
(2) European Mortgage Federation - Hypostat 2022, 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?	The mortgage market returned to double-digit growth in 2021. New credit operations increased 34% y-o-y (7% y-o-y in 2020). The latest available data about market concentration (as of 2017) shows that the six largest institutions concluded 82% of new mortgage contracts, which represent 80.6% of the contracted amount, comparing with 84.5% and 83.6%, respectively, in 2016. On 31 December 2017, the ten largest credit institutions had 96.7% of mortgage contracts and 95.4% of outstanding mortgage amount. In 2021, the largest institutions are expected to have continued representing the bulk of new mortgage production, with market shares generally reflecting the current market structure (as per question #3). *Source: Banco de Portugal (Retail Banking Markets Monitoring Report 2018; Monetary and Financial Statistics).*
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 of c. 25%, 23%, 19%, 13%, 10%, 6% and 4% respectively as of December 2021. *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 2021, the bulk of new credit operations (99.4%) had an LTV ratio equal or below 90% (49% with LTV ≤80% and 50% 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.
What is the typical/average maturity for a mortgage in your country?	Mortgage loans granted in 2020 had an average maturity of 33.1 years (33.2 years in 2019), 1.2 months lower comparing to the contracts portfolio. *Source: Banco de Portugal (Retail Banking Markets Monitoring Report 2020).*
What is/are the most common ways to fund mortgage lending in your country?	From the perspective of banks, retail and wholesale funding are the main sources of funding of the national banking system, with deposits becoming the main source (LTD ratio of 81.2% as of December 2021). From the point of view of costumers, commercial banks are the most common providers of mortgage. *Source: Banco de Portugal, Portuguese Banking System: latest developments, 4th quarter 2021*
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).

Romania

By Cristian Dragoş, Alpha Bank Romania

IN A NUTSHELL

→ House prices rose, but at a lower rate than inflation.
→ House completion exceeded pre-pandemic level only in some regions.
→ Price differences between old and new dwellings increased.
→ Signs of an upcoming boom in house building.

MACROECONOMIC OVERVIEW

The economy grew by 5.9%, representing a complete recovery from the contraction in 2020. Consumption and investments were the main sources of growth. Private consumption increased by 7.1% y-o-y, while investment was up by 9.8% mostly from higher inventories rather than gross fixed capital formation. The growth in fixed assets stemmed mainly from an increase in assets in construction, 20% incorporated in dwellings and 80% in other buildings and structures.

LOOKING AHEAD

The unemployment rate increased from 5.6% from 5.0% in 2020. Inflation accelerated to 4.1% from 2.3% in 2021 fuelled by fast rising energy prices. Additionally, the liberalisation of the electricity market for household consumers, implemented at the beginning of the year, augmented the impact of surging energy prices.

As 2022 to date has been characterised by adverse shocks, growth is expected to slow. The energy crisis and supply-chain bottlenecks are likely to persist amid the ongoing conflict in Ukraine. A potential prolongation of this conflict might further depress economic sentiment and discourage private investments. Additionally, as higher energy prices are passed on from producer to consumer, inflationary pressure could persist depressing demand, including the one for housing.

HOUSING MARKETS

Housing completions increased by 5.3% but with sizeable regional disparities. The most dynamic regions, contributing 27% of the total, were North-East (+15% y-o-y), West (+14.5%) and South-West (+10% y-o-y). The number of finished dwellings in the North-East recovered from the large decline in 2020, while completions in the other two areas accelerated. These regions, alongside Bucharest-Ilfov region, were the leading areas where house completion exceeded pre-pandemic levels. Licenses issued for residential construction increased by 24.1%, signalling a forthcoming boom in residential construction. All regions posted advances, with the largest in Bucharest-Ilfov (+43% y-o-y), West (+35% y-o-y) and Centre (+33% y-o-y).

Residential property prices increased by 4.4% compared to 4.7% in 2020. Prices of existing dwellings rose by 5%, prices of new dwellings decelerated to 1.6% (from 4%). Contrary to the situation in 2020, apartment prices grew slower outside the capital (+5.6%) versus Bucharest (+6.2%). Prices of houses declined in urban areas (-2.6%) but increased in rural areas (4.3%). It is possible that 'work from home' changed individuals' preferences towards larger dwellings and those outside urban areas. Such preference shift, alongside declining interest rates on housing loans, might explain the large increase in the average mortgage size (+27.1%). Additionally, expectations of higher property prices due to an increase in the threshold for reduced VAT (from ~EUR 91,000 to ~EUR 140,000 in 2022) supported households' decisions to purchase a home and contributed to a 20.7% annual increase of the number of transactions.

MORTGAGE MARKET

Outstanding housing loans reached 8.5% of GDP, after a 12.9% increase in 2021, compared with 9.9% growth in the previous year. The advance was entirely driven by local-currency denominated loans as foreign currency stock declined by 10.8%. Local currency loans currently account for 81% of the total vs. 76% in 2020. Although domestic currency borrowing became cheaper, as the average interest rate charged for new housing loans declined from 5.1% pa in 2020 to 4.1% pa in 2021, it continues to be more expensive than foreign currency borrowing (the average rate for new euro loans was 3% pa in 2021 vs. 3.7% in 2020). However, access to housing loans denominated in foreign currency is restricted following the enforcement, since January 2019, of a new regulatory provision setting the maximum ratio of monthly debt-to-income ratio to 20% for foreign currency loans against 40% for domestic loans.

The regional distribution remained unbalanced as around 41% of housing loans were granted in Bucharest-Ilfov region, outpacing other top-ranking regions: North-West (12%), Center (10%), West (9%), North-East (9%) and South-East (9%).

According to the central bank's Financial Stability Report issued in Dec 2021, the NPL ratio for housing loans fell to 1.5% (Sep 2021), marking a 0.49% annual decline. The NPL ratio for borrowers who resorted to the facility established by Gov. Emergency Ordinance No. 37/2020 suspending loan payment obligations (Covid-19 led moratorium) was 4.6% in Sep 2021.

Given the increase in individuals borrowing for investment purposes (up by 7 pps from December 2019 to June 2021, accounting for 13% of total), the credit risk associated with such loans and high sensitivity to real estate prices, the central bank decided introduced beginning with April 1st, 2022 a new regulation reducing the LTV cap by 10 pps for loans to households for property other than the one they occupy with the aim to mitigate the risks from an increase in new loans for this purpose and to improve the resilience of debtors and lenders in the event of a downturn.

According to Bank Lending Surveys, the loan-to-value ratio for new standard housing loans stayed at 72% in 2021 (73% was in 2020). The average level of indebtedness (debt to income) slightly declined for new loans to 33% in 2021 from 34% in 2020 and total housing loan portfolio to 42% in 2021 from 43% in 2020.

Due to their high value and payment structure (constant annuities), housing loans are more sensitive to the forthcoming high interest rate environment. Moreover, a significant share of the flow of housing loans (73% of new loans in 2021) are on variable interest rates. A much lower share of new housing loans is exposed to possible interest rate hikes over the medium term (12% of housing loans originated in 2021 have a fixed interest rate over a period of 1 to 10 years).

NON-MARKET LED INITIATIVES

The public moratorium for private individuals and companies impacted by the pandemic, originally implemented in 2020, was prolonged in 2021. According to the moratorium, clients had been able to request the suspension of monthly instalments under the following conditions:

- Up to 9 months payment holiday – cumulative period, including payment holiday granted in 2020, if applicable;
- Eligible loans – credit facilities contracted before March 30, 2020;
- The request to suspend the monthly payments must have been registered by March 15, 2021.

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. During 2021, customer deposit growth was outpaced by growth of non-government loans, leading to an increase of loan-to-deposits ratio to 0.68% vs. 0.67% in 2020, signalling a trend reversal. Residents' deposits (in RON equivalent) increased at a 13.9% annual pace in 2021, slowing from a 14.4% y-o-y advance in 2019, reflecting increased saving appetite at both households (generating 47% of 2021 deposits' advance) and legal entities level. Banks' external financing continued to decline as banks' share of foreign liabilities relative to total liabilities reached 5.6% in Dec 2021, down from 5.9% in Dec 2020.

GREEN FUNDING

Romanian banks, as active promoters of sustainability, started diversifying funding sources while further committing to support energy transition by tapping the green bond market for the first time. Three green bonds were successfully issued in 2021 raising ~EUR 420 mn. Two of the inaugural green bonds, totalling ~EUR 320 mn, were issued by one of the major banks in Romania, aiming to attract resources for funding eligible assets and providing distinct environmental benefits in line with the issuer's own green bond framework covering areas such as energy efficiency, green residential and commercial buildings. The other inaugural green bond was issued by another major bank as part of the bank's transition towards sustainability with the specific purpose of financing eligible green assets focusing on green buildings (residential and commercial) and renewable energy.

	ROMANIA 2020	ROMANIA 2021	EU 27 2021
MACROECONOMIC VARIABLES			
Real GDP growth (%) (1)	-3.7	5.9	5.4
Unemployment Rate (LSF), annual average (%) (1)	5.0	5.6	7.0
HICP inflation (%) (1)	2.3	4.1	3.0
HOUSING MARKET			
Owner occupation rate (%) (1)	96.1	95.3	70.0
Gross Fixed Investment in Housing (annual change)(1)	6.6	5.6	6.6
Building Permits (2015=100) (2)	105.6	131.1	134.0
House Price Index – country (2015=100) (2)	128.0	137.5	145.2*
House Price Index – capital (2015=100) (2)	126.6	138.0	146.1*
Nominal house price growth (%) (2)	4.3	7.5	10.3*
MORTGAGE MARKET			
Outstanding Residential Loans (mn EUR) (2)	18,354	20,347	6,508,621
Outstanding Residential Loans per capita over 18 (EUR) (2)	1,170	1,308	17,782
Outstanding Residential Loans to disposable income ratio (%) (2)	14.3	71.9	62.8*
Gross residential lending, annual growth (%) (2)	-7.1	57.8	12.2
Typical mortgage rate, annual average (%) (2)	5.1	4.1	2.0

* Please note that this value is the simple average of the available values in 2021.

Sources:
(1) Eurostat
(2) European Mortgage Federation - Hypostat 2022, 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 78% at the end of March 2021
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 Bašták, Slovenská sporiteľňa

IN A NUTSHELL

→ GDP expanded by 3%, as inflation increased noticeably by end year 2021.
→ Generally favourable conditions for mortgages drove annual growth to almost 13%.
→ Exceptional growth of real estate prices across all regions.
→ Interest rates on new mortgages continued to decline.
→ Changes in ECB's monetary policy will break long-term trends in 2022.

MACROECONOMIC OVERVIEW

The economy experienced periods of both expansion and contraction mainly due to the pandemic. Both the first and the last quarter were affected by restrictions the disrupted global supply chains effected the economy during the second half of the year. Nevertheless, household consumption remained strong, driving the average GDP growth in 2021 to 3.0%.

Inflation, as elsewhere, became the main economic topic in Slovakia. Imbalances in the global demand revival, rapidly rising energy prices and change in consumer preferences from services to goods due to lockdowns caused prices (measured by HICP) to grow by 5.1% year-on-year at year end 2021. A further acceleration to double-digits is expected in 2022. Average inflation in 2021 was 2.8%. The most significant increases were in food, fuel, and construction materials prices while base effects, namely the decrease of regulated energy prices decrease in 2020 and the cancellation of subsidies for schoolchildren, also played a role.

Despite this the labour market remained resilient, partly due to significant government support. The average unemployment rate increased only slightly to 6.8% while nominal wages grew at 6.8%.

The public debt ratio, consistently well below the Euro area average, rose further as a result of pandemic-related spending and exceeded the Maastricht limit of 60% by 3 pps. Although the return below this limit is not expected until 2024, the ratio should not deteriorate in the coming two years.

Household indebtedness continued to increase as the growth of retail loans returned to high levels. The ratio of retail loans to GDP reached 47% for 2021, 1.5 pps above the previous year and well above peer CEE countries.

HOUSING MARKET

Slovakia has the second highest homeownership rate in Europe (behind Romania) with 92.3% 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 sharply by 21.2% to EUR 2,993 per m2 in 2021, after rising 15.8% a year earlier. Prices in other regions were catching up with even faster growth.

- The most extreme growth was in Presov region with almost 40% y-o-y inflation (to 1,715 per m^2).
- Three regions (Zilina, Kosice, and Banska Bystrica) had growth of around 35%.
- Prices in the three remaining regions located in the western part of Slovakia (Trnava, Trencin, Nitra) went up by 30%.

There were several factors, on both the supply and demand side, which contributed to these increases. Supply remained subdued due to increasing construction material prices, shortage of labour due to outbursts of COVID-19 infections, and lengthy approval process for new real estate projects. Although the number of newly started real estate projects increased by 26% y-o-y, the number of finished projects declined by 4% y-o-y.

Demand for mortgages did not weaken despite the economic uncertainty. Real estate is considered as a safe haven by Slovaks and the legal introduction of working from home schemes created a need for larger dwellings. The divergence of prices from fundamental economic indicators therefore grew wider and risks of a sudden correction was the highest since the real estate bubble of 2008.

Continued cheap mortgage availability also facilitated booming real estate prices. In addition, expectations of near term ECB rate hikes, and thus higher mortgage rates, forced many clients to accept higher prices in order to get favourable mortgage funding. This frontloading effect became even more prominent in early 2022.

MORTGAGE MARKET

The annual growth in mortgages outstanding accelerated to 13%. Although the pandemic seemingly affected the market only slightly, later developments proved that growth would have been noticeably faster otherwise. Growing real estate prices, still solid demand for flats and houses, together with a fairly robust labour market kept Slovakia among the top 5 fastest growing mortgage markets in the EU.

Due to continuing low interest rates and an expectation of upcoming increases refinancings remained a prominent feature of the local market. In 2021, as much as 29% of new loans were changes in contractual terms, with lower interest rates being by far the most common change. Similarly, high activity was seen in the number of clients switching banks for lower rates as breakage costs are low due to highly pro-client local laws.

The gradual decline of average interest rates on new mortgages continued, as it fell by 14 bps, from 1.12% to just below 1%. The main drivers were the ECB's extremely loose monetary policy and a high level of competition, mainly from smaller banks competing for market share. The market position of the largest banks deteriorated somewhat in 2021 while the challengers gained significantly.

The market has been dominated by relatively short interest rate fixed periods (3 to 5 years) for several years as rates fell. However, the share of longer fixings (above 5 years) increased in 2021 to almost one fifth of new production due to anticipated ECB rates hikes. For comparison, it was just 3% a year before. The development continued in the first months of 2022 when the share rose above 40% as of April. Variable rate mortgages are virtually non-existent.

The average maturity of new mortgage contracts was around 25 years. Approximately half of new housing loans (volume wise) in 2021 were provided with the maximum possible maturity of 30 years and less than 17% chose a maturity of 20 years or less.

The volume of non-performing loans declined further in 2021. Consequently, combined with the rapid growth of total lending, the NPL ratio fell from around 1.4% in 2020 to just 1.2% in 2021. After the statutory moratoria ended, the scenario was better than expected, asset quality deterioration did not materialise. The prominent feature of the Slovak mortgage market is a high share of new loans intermediated through financial advisors. In 2021, around 65% of total lending volume was via such external sales network. The National Bank of Slovakia (NBS) considers intermediated loans as somewhat riskier and sees intermediaries as too aggressive, pushing clients to the maximum level of indebtedness allowed.

Due to the NBS's limits on maximum Loan-to-Value (LTV), the average LTV ratio has stabilised in recent years at around 72%. 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 Debt-to-income ratio (DTI) and Debt service-to-income ratio (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 market situation has been changing significantly in the first half of 2022. Long term trends of declining interest rates, brisk annual growth in outstanding housing loans and high rates of refinancing – both within a bank and between banks – are expected to change in 2022. In the first months of 2022, signs of forthcoming tightening of ECB's monetary policy already caused an increase in the total volume of newly provided mortgages and a shift to longer fixed rates. Such development will probably not last long as it is generally expected that annual growth will slow to more moderate, mid-single-digit rate and the interest rates will stabilise around 2 to 3 pps above the level of 2021.

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 continue to offer a stable, low-cost source of funding for the banks and building societies. Retail deposits bear virtually 0% interest rates for large commercial banks. Despite this retail deposits had grown at around 7% y-o-y. As spending was catching up after the pandemic-related restrictions were lifted, growth slowed to just 4% in 2021, driving loan-to-deposit ratio of the banking sector above 104% as of December 2021.

Banks also 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. 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 2020	SLOVAKIA 2021	EU 27 2021
MACROECONOMIC VARIABLES			
Real GDP growth (%) (1)	-4.4	3.0	5.4
Unemployment Rate (LSF), annual average (%) (1)	6.7	6.8	7.0
HICP inflation (%) (1)	2.0	2.8	3.0
HOUSING MARKET			
Owner occupation rate (%) (1)	92.3	92.3	70.0
Gross Fixed Investment in Housing (annual change)(1)	9.7	3.4	6.6
Building Permits (2015=100) (2)	108.0	129.9	134.0
House Price Index – country (2015=100) (2)	142.1	175.8	145.2*
House Price Index – capital (2015=100) (2)	137.8	168.6	146.1*
Nominal house price growth (%) (2)	11.9	23.7	10.3*
MORTGAGE MARKET			
Outstanding Residential Loans (mn EUR) (2)	33,787	37,677	6,508,621
Outstanding Residential Loans per capita over 18 (EUR) (2)	7,613	8,502	17,782
Outstanding Residential Loans to disposable income ratio (%) (2)	56.9	62.2	62.8*
Gross residential lending, annual growth (%) (2)	15.5	32.3	12.2
Typical mortgage rate, annual average (%) (2)	1.1	1.0	2.0

* Please note that this value is the simple average of the available values in 2021.

Sources:
(1) Eurostat
(2) European Mortgage Federation - Hypostat 2022, 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.
What is the market share of new mortgage issuances between these entities?	The majority of new mortgages is issued by commercial banks (around 95%), followed by building societies (with less than 5%). 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 societes of 6% and the state funds just 0.1%.
What is the typical LTV ratio on residential mortgage loans in your country?	In 2021, the average LTV for newly provided mortgages was slightly below 72%. Maximum LTV ratio of 90% is possible (up to 20% of all newly provided mortgage can have an LTV between 80% and 90%).
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 in 2021 were loans with rates fixed for period of 3 or 5 years, although the share of longer fixations has risen in 2022 due to increasing interest rates.
What is the typical/ average maturity for a mortgage in your country?	Average maturity of a new mortgage loan was about 25 years in 2021. Mortgage loans can have maturity of at least 4 years and maximum of 30 years, with certain exceptions where a loan with maturity of up to 40 years are possible.
What is/are the most common ways to fund mortgage lending in your country?	Deposits are for the banks 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. The legal reform from a couple of years ago covered made bonds even more attractive funding tool for banks.
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; • State Housing Development Fund - providing loans with lower interest rates (conditions apply).

Slovenia

By Jelena Ćirjaković, Banka Slovenije

IN A NUTSHELL

- → House price growth surged by 11.5% amid the economic recovery, the biggest increase since 2008.
- → Slovenia has seen a lack of housing investment for decades, although the number of residential building permits increased to ten year high. Construction costs increased.
- → Slovenia has a relatively high homeownership rate, (75%), and the share of homeowners with a mortgage is one of the lowest in the EU, at 12.5%.
- → Slovenia is committed to the green transformation, with the key goal for 2030 to reduce greenhouse gas emissions in buildings by at least 70% compared to 2005.

MACROECONOMIC OVERVIEW

The economic recovery from the pandemic in 2021 was strong and Slovenia surpassed its pre-crisis GDP, in part due to extensive government support. GDP growth was 8.1%, considerably higher than the euro area average. The high economic growth was driven by higher domestic demand, also significantly stronger than the euro area average, and high growth in exports. The economic sentiment indicator improved to pre-pandemic levels by the end of the year.

Employment reached a historic high in 2021, with the unemployment rate at 4.8% in 2021, down 0.2% on the year. Due to labour shortages, firms were increasingly seeking to hire foreign workers mitigating the adverse effects of the structural imbalances on the domestic labour market, and consequently reducing wage pressure.

Inflation was 5.1% in December 2021, the highest rate in 13 years, with an increasing number of goods seeing rising prices. Average inflation for 2021 was 2%. Disruptions to supply chains increased sharply in the second half of the year, which strengthened cost pressure and contributed to rising inflation. Some slowdown was expected due to easing excess demand, the strong base effect, and resolving issues in supply chains and energy markets. These pressures strengthened in 2022 due to new lockdowns in China and the conflict in Ukraine.

The general government deficit narrowed in 2021 amid high economic growth to EUR 2.7 bn, 5.2% of GDP, slightly less than the euro area average. General government debt declined sharply to 74.7% of GDP, down 5.1 pps on the year. It however increased by EUR 1.4 billion in nominal terms, less than the deficit, which was partly financed by the run-down of funds built up in previous years.

LOOKING AHEAD

Somewhat favourable economic developments are expected to continue in 2022. Economic activity growth is expected to slow down but remain broadly based. Average inflation is expected to be 9.0% (Banka Slovenije estimation), mostly due to high energy prices, with the contributions of other price groups also increasing.

The high growth in house prices continued over the first three months of 2022. Increasing construction costs and the expectation of further price increases in the construction sector might contribute to additional upward price pressure. Housing loans continued to increase rapidly, although following the ECB's path of policy normalisation, rises in interest rates could slow price pressures.

As a response to rapidly growing house prices and housing loans, in May 2022 Banka Slovenije made adjustments to macroprudential measures by introducing a sectoral systemic risk buffer and reducing the recommended LTV for housing loans from 80% to 70% (80% continues to apply to first-time buyers). Banks can also make exemptions from the DSTI requirement[1] for up to 10% of loans and housing loans, fully backed by a government guarantee and exempted from the restrictions on household lending.

HOUSING MARKETS

House prices grew 11.5% (with the house price index including both new and existing dwellings) amid the economic recovery, the strongest increase since 2008. In the fourth quarter of 2021, rising at a record pace, house price growth stood at 17.2%, in Ljubljana, 19.0% in Maribor and 16.3% in the rest of Slovenia. The growth in house prices was however still moderate in 2020, at 4.6%.

Residential real estate prices rose in all larger cities in Slovenia, with prices remaining highest in Ljubljana and the coastal region. In 2021 the median price per square meter for flats stood at EUR 3,410 in Ljubljana and EUR 3,050 on the coastal region. The median price per square meter for flats was lower in Maribor and Celje, at EUR 1,620 and EUR 1,690, respectively. The number of sales of residential real estate has increased in 2021 to the level prior to the pandemic and stood at 13,927 sales.

On the supply side there has been inadequate housing investment for decades, which has also had an impact on house prices. A low proportion of gross fixed capital formation is in residential buildings, 2.2% of GDP, below the EU average. This has contributed to long-term supply shortages and the mismatch between the supply and demand for residential real estate.

Supply shortages will be partly addressed, the number of building permits issued for residential buildings increased by 13% to 2,914 in 2021, the highest number in the last ten years. Moreover, in 2021, 4,423 new dwellings were started and 4,032 completed. The construction confidence indicator also picked up considerably after a fall in 2020, and surpassed pre-pandemic levels. However, there had been a high rise in construction costs for new dwellings, both in terms of material and labour costs. The stock of banking sector loans to non-financial corporations in construction and real estate has decreased considerably from the last financial crisis, from EUR 3.5 bn in 2011 to EUR around 970 mn at the end of 2021.

[1] the DSTI ratio at a monthly level may not exceed 50% for net monthly income of no more than twice the minimum gross wage, and 67% for the portion of the net monthly income that exceeds twice the minimum gross wage. Notwithstanding the income level, an amount of at least 76% of the minimum gross wage must remain for the consumer each month after the payment of all instalments under credit agreements.

In June 2021 the government amended the Housing Act to increase the number of affordable rented apartments and support new housing construction. The Housing Fund of the Republic of Slovenia, a public fund, would rent available apartments on the market and, accompanied by state funding of the costs, sub-let the apartments at a non-profit rent, especially to the younger generation. The Fund was also granted a pre-emption right with regard to the sale of municipal land intended for housing construction.

MORTGAGE MARKET

In Slovenia the share of homeowners with a mortgage is one of the lowest in the EU, at 12.5%. The stock of housing loans granted to households started to increase rapidly in the second half of 2021 with a y-o-y growth rate of 9.1% by year end, while in April it was only 4.8%. At the end of the year, the stock of housing loans was EUR 7.373 bn. The growth in housing loans in the second half of the year was considerably higher in Slovenia than the euro area average.

The increased demand for housing loans was also supported by the low cost of borrowing. There was a sharp rise in fixed-rate housing loans. In December the share of new loans with a fixed interest rate in 2021 was up by a half compared with the previous year at nearly 90%. At the end of the year the average fixed interest rate for new housing loans fell to 1.7% (down by 0.5 pps from the previous year), while the average interest rate on variable-rate loans stood at 1.6% (down by 0.2 pps from the previous year).

According to the Bank Lending Survey (BLS), credit standards for housing loans remained mostly the same compared to 2020. The LTV for new housing loans in the last quarter of 2021 averaged 63.4%, down by 4.5 pps on the year. The share of housing loans with an LTV of more than 80% was around 11% by year end, having been 20% in 2019, and 16% in 2020.

Credit standards for housing loans were stable also because of tightened macroprudential restrictions on household lending in October 2019. The regulation set a binding cap on the ratio of debt service costs to borrower income (DSTI). Furthermore, a cap on the ratio of the amount of a credit agreement for residential real estate to the value of the real estate pledged as collateral (LTV) was already in place as a recommendation.

To support the younger generation, the government introduced a housing guarantee scheme for those under 38 and for young families. The state will guarantee a loan of up to EUR 200,000 with a maturity of up to 30 years if the borrower is a first time buyer and has low creditworthiness.

Due to economic support measures brought in as a response to the pandemic, the banking systems' non-performing exposures (NPEs) have remained low and declined further during the year, despite the gradual expiry of emergency measures and the expiry of moratoria for bank loans in 2021. The banking systems' NPEs ratio on housing loans remained low at 1.6% in December 2021, down by 0.3 pps compared to February 2020, before the pandemic.

Slovene households are considerably less indebted compared with the euro area average. Their financial liabilities increased in absolute terms, but in relation to disposable income and GDP the ratio decreased slightly, standing at 48.1% of disposable income and 30.1% of GDP at year end.

MORTGAGE FUNDING

Deposits have long represented a significant source of funding for banks in Slovenia, from the perspective of their amount and stability, their importance has increased in recent years. Deposits by the non-banking sector increased sharply, as in the previous year, but the rate of growth slowed. The ratio of non-bank deposits to bank balance sheets strengthened to 77.1%, well above the euro area average (41.2%). On this indicator, Slovenia ranks highest among euro area countries in terms of the importance of deposits as a source of bank funding.

The banking system's dependence on other sources of funding is low. The wholesale funding ratio declined to 4.8% by year end, thus remaining less exposed to potential contagion from foreign financial markets. Banks do not tend to issue securitised mortgages and covered bonds. Before the crisis in 2008, banks in Slovenia relied more on wholesale funding, when the share of wholesale funding stood at over a third of all bank funding. Certain banks participated in TLTRO-III tenders at the Eurosystem and obtained favourable funding, but the proportion of total funding accounted for by these liabilities remained relatively low, at 4.9% at year end..

GREEN FUNDING

Slovenia is committed to the green transformation, following the European Union's plans. In 2015 the government adopted a long-term strategy to promote investment in the energy renovation of buildings, which set important targets for reducing energy use in buildings, with a follow-up in 2018. At the beginning of 2021, a long-term energy renovation strategy for 2050 (DSEPS 2050) was adopted, which aims to decarbonise the national building stock by 2050 and identifies measures supporting the building headline targets set in the National Energy and Climate Plan of the Republic of Slovenia (NEPN).

The strategy was set in accordance with the European Union's key objective of putting energy efficiency first. The key goal of the strategy for 2030 is to reduce greenhouse gas emissions in buildings by at least 70% compared to 2005, with renewable energy sources accounting for at least two thirds of energy use in buildings. The goal is also that by 2050 74% of single-dwelling buildings and 91% of multi-apartment buildings will be energy renovated, which would reduce final energy consumption by 45% and CO2 emissions by almost 75% compared to 2005.

At end of 2020 the measures for encouraging energy efficiency in buildings were set out in the Act on Energy Efficiency. This regulates areas previously covered in the Energy Act and brings Slovenia in line with European Union plans. The installation of chargers for electric vehicles in parking lots and resting points and separate metering of heating, cooling, and hot water consumption were all foreseen.

	SLOVENIA 2020	SLOVENIA 2021	EU 27 2021
MACROECONOMIC VARIABLES			
Real GDP growth (%) (1)	-4.2	8.1	5.4
Unemployment Rate (LSF), annual average (%) (1)	5.0	4.8	7.0
HICP inflation (%) (1)	-0.3	2.0	3.0
HOUSING MARKET			
Owner occupation rate (%) (1)	74.6	74.6	70.0
Gross Fixed Investment in Housing (annual change)(1)	-0.2	0.5	6.6
Building Permits (2015=100) (2)	105.8	119.4	134.0
House Price Index – country (2015=100) (2)	135.7	151.3	145.2*
House Price Index – capital (2015=100) (2)	142.8	161.1	146.1*
Nominal house price growth (%) (2)	4.6	11.5	10.3*
MORTGAGE MARKET			
Outstanding Residential Loans (mn EUR) (2)	6,760	7,373	6,508,621
Outstanding Residential Loans per capita over 18 (EUR) (2)	3,920	4,250	17,782
Outstanding Residential Loans to disposable income ratio (%) (2)	22.3	22.9	62,8*
Gross residential lending, annual growth (%) (2)	33,8	32,8	12,2
Typical mortgage rate, annual average (%) (2)	2.3	2.1	2.0

* Please note that this value is the simple average of the available values in 2021.

Sources:
(1) Eurostat
(2) European Mortgage Federation - Hypostat 2022, Statistical Tables.

SLOVENIA FACT TABLE

Which entities can issue mortgage loans in your country?	Commercial banks, savings banks, and the National Housing Fund.
What is the market share of new mortgage issuances between these entities?	Data on market share is not available.
Which entities hold what proportion of outstanding mortgage loans in your country?	The outstanding amount hold by commercial banks and savings banks is close to 100%, as NHF's share is negligible.
What is the typical LTV ratio on residential mortgage loans in your country?	The average LTV ratio on new residential mortgages is of 63.4%.
How is the distinction made between loans for residential and non-residential purposes in your country?	Residential loans are those designated for the purchase or renovation of housing.
What is/are the most common mortgage product(s) in your country?	The two more common products are: 19-year fixed and variable rate mortgage.
What is the typical/average maturity for a mortgage in your country?	Average maturity in 2020 was 19 years.
What is/are the most common ways to fund mortgage lending in your country?	Mortgage funding in Slovenia is mainly deposit-based.
What is the level of costs associated with house purchase in your country (taxes and other transaction costs)?	The cost associated with house purchase represents between 2 and 4% (2% transfer tax, up to 2% for real estate agency fee if realtor was used) of the value.
What is the level (if any) of government subsidies for house purchases in your country?	No subsidies

Spain

By Leyre López, Spanish Mortgage Association

IN A NUTSHELL

- → GDP grew 5.1% after a 10.8% contraction in 2020.
- → Gross residential lending grew due to pent-up demand and interest rates at all-time lows.
- → Fixed-rate loans continued to increase in volume
- → Support measures and economic growth have caused a reduction in NPLs, although at a slower rate than pre-pandemic.
- → The Royal Decree-Law 24/2021 of 2 November transposes the Covered Bond Directive 2019/2162 creating a more harmonised covered bond framework.

MACROECONOMIC OVERVIEW

GDP grew by 5.1%, although still 6% below pre-pandemic levels. Domestic demand contributed 4.7 pps to GDP growth, while the external demand contributed just 0.4 pps. The retail sector particularly stood out, it increased by 14.2% after a 25.7% contraction in 2020, thanks to the vaccination and gradually eased lockdowns. The recovery sustained employment levels, with the creation of 840,600 new jobs. Due to this, the number of employed persons stood above 20 mn persons, while the unemployment rate decreased from 15.5% in 2020 to 14.8% in 2021. HICP continued to increase, increasingly in the last part of the year as a result of the increase in fuel and electricity prices. On average, the HICP stood at 3.0%, while core inflation was just 0.7%.

Given the employment creation, tax collection increased resulting in a decrease in the public deficit to 6.8%. Government debt reached an historical level in absolute terms, although the GDP ratio improved by 1.6 pps, to 118.4% of GDP at year end.

LOOKING AHEAD

In light of the war in Ukraine and more permanent inflation, forecasts suggest more subdued economic growth in 2022, from an expected almost 6% at end-year 2021 to about 4%, according to the last European Commission estimate at the time of writing. Initially, economic activity was supported by solid fundamentals, following the implementation of the Recovery and Resilience Plan enacted by the Government on the basis of the European Funds and the positive inertia of recovery after the height of the pandemic. However, as a result of the war in Ukraine, the outlook has deteriorated due to a shock in commodity markets.

In terms of housing, 2022 housing sales and new mortgage dynamics were expected to remain strong, albeit at a slower pace, given the high savings rates and the low interest rates. This scenario may moderate if the war continues, inflation becomes more persistent and the ECB ultimately tightens its monetary policy, as foreseen.

HOUSING MARKETS

Real estate and housing activity indicators (i.e., house prices, new building permits and housing sales, among others) pointed to recovery after the pandemic disruption. Apart from the maintenance of the expansive monetary policy, vaccination (which reached 80%) and a gradual lifting of most lockdown restrictions have been key drivers of the recovery and have helped reinforce both producer and consumer confidence.

Housing production increased which has intensified as the year progressed. In total, these permits were issued for more than 108,300 dwellings with an investment of around EUR 10.6 bn, a figure 27% higher compared to 2020, marking an 11-year high. The 2020 trend in the development and sale of detached houses due to changes in consumer behaviour and residential preferences since the pandemic continued, although at a slower rate as the year progressed. Single-family houses, which accounted for a quarter of new building permits, grew by 31% y-o-y, against the 25% for multi-family houses.

Demand was also positive. The main drivers were the increase in saving rates and a new trend for larger homes as a result of the Covid-19 confinement, against a backdrop of high liquidity and low interest rates. Housing sales reached 674,000 a volume not seen since 2007 and 38% higher than in 2020, which follows from the fact that in the previous year sales fell by 14%, but is also higher than the 570,000 dwellings sold in 2019. In relative terms, the Balearic and the Canary Islands, as well as areas on the Mediterranean coast led this trend, suggesting a recovery of the second-home market which was especially hampered during the pandemic due to national and international mobility difficulties. In primary dwellings, second-time buyers continued to grow relative to first time buyers who still face housing affordability difficulties.

After contracting in the pandemic, house prices increased. On an annual average basis, considering the average of all 2021 quarters, prices rose by 2.1%, although the year closed with an annual increase of 4.4% in Q4 2021. Prices rose more for newly-built properties due to the shortage of new developments and the rise in production costs. Once again, regions such as Madrid or Barcelona showed stronger increased by year end, increasing in Q4 2021 by 7.2% and 4.3%, respectively.

MORTGAGE MARKETS

MARKET DYNAMICS

Favourable conditions in the real estate market were reflected in the mortgage market. Gross lending amounted to EUR 59.4 bn, 35% relative to both 2020 and 2019. Volumes in 2020 were affected by the pandemic and in 2019 by the approval of the *Law 5/2019 on real estate credit agreements*. Growth 2021 was driven by falling interest rates due to increased competition between banks in a context in which the ECB maintained its expansionary monetary policy. The weighted average mortgage rate reached an all-time low of 1.49% on new mortgages. Additionally, supported the preference of both banks and consumers towards fixed interest rates continued to narrow the spread between floating and fixed rates, reaching the latter about 75% of the market.

Lower interest rates led to a decrease in the mortgage payments for many Spanish households[1]. However, this was not the case for newly originated loans due to their greater amount. The average loan maturity stabilised at around 24.5 years.

In terms of outstanding loans, bank lending for house purchases increased by 1.1%, after more than a decade of reduction. This was due to increased lending activity, despite repayments increasing due to both households using savings to reduce their debt and the resumption of payments after the expiry of moratoriums. Despite the expiries, doubtful exposures continued to decrease albeit at a slower rate than prior to the pandemic. The NPL ratio for residential loans remained stable at 3%, with a coverage ratio of 28% as of December 2021, in line with the pre-pandemic picture, but almost 4 pps lower than in 2020. The risk of an activity slowdown stemming from existing geopolitical tensions and the potential tightening of the monetary policy could led banks to increase provisions.

NON-MARKET LED INITIATIVES

Some of the measures approved in 2020 to mitigate the impact of the pandemic were withdrawn throughout 2021. The payment moratoriums for households, which represented 9% of household credit with a suspended balance of EUR 58 bn, expired at the end of March 2021. The temporary employment regulation scheme (Spanish acronym: ERTE) that relieved companies of labour costs while guaranteeing household incomes, although continuing through the year, were used less: at year end there were 102,500 people under ERTE, 97% less than at the height of the pandemic. This, together with state guaranteed loans, which mobilised more than EUR 135 bn of loans by December 2021 for non-financial companies (NFCs), meant supported the private sector, with loan impairment remaining low practically across the board in all portfolios. At the same time, significant steps were taken in the development of the macroprudential regulatory framework, specifically the Banco de España published *Circular 5/2021* in 2021, which develops three new macroprudential tools to mitigate risks in specific credit segments, including the application of a countercyclical capital buffer in specific risk exposures, limits on sector concentration, and limits and conditions on credit standards in terms of maturity or indebtedness.

MORTGAGE FUNDING

The financial system continued to be marked by a high volume of liquidity. In order to continue providing financial support to households and companies, Spanish financial institutions further resorted to liquidity auctions under the ECB's Long Term Repo Operations program, although at a slower pace than in 2020, when the volume doubled. In 2021 the balance outstanding stood at EUR 289.5 bn, 11% more per year. In net terms, the strong increase in mortgage activity during 2021 was not matched by an increase in the balance of mortgage securities, which has decreased by 5.6% to EUR 298.3 bn (considering not just 'Cédulas Hipotecarias' but also MBS). The first refinancing resource of mortgage-related banking assets will change from July 8, 2022, due to the transposition of the *European Directive 2019/2162* (the Covered Bond Directive) into Spanish law, after the entry into force of Royal Decree-Law 24/2021. Changes include the configuration of a genuine cover pool; the designation of a cover pool monitor; the appointment of an independent bankruptcy administrator; the introduction of a liquidity buffer; the possible use of a soft bullet mechanism; and the reduction of regulatory levels of overcollaterisation. This should allow for a better functioning covered bond market, if possible, since it should be noted that covered bonds have traditionally been a resource widely used by Spanish institutions, especially in times of uncertainty.

GREEN FUNDING

Green funding is still at an early stage, although it is gradually gaining prominence due to public and private initiatives, in line with the European Renovation Wave, to advance the modernisation and decarbonisation of the economy through the subsidy and funding of 'green' actions that pursue, among other aspects, the rehabilitation of one of the oldest housing stocks in Europe. Approximately half of Spanish buildings were built before 1980 and about 80% have an energy rating E, F or G (that is, deficient).

From the Next Generation EU funds, the government has approved the Urban Rehabilitation and Regeneration Plan for an amount of about EUR 7 bn. This program aims to multiply by 10 the current rate of renovations by the end of the decade, from just under 30,000 per year to 300,000. The aid involves a different degree of subsidy with respect to the renovation project, granting a higher level of subsidy to homes or buildings in which there is a clear improvement in energy efficiency, as well as also those sectors where, due to their characteristics of low incomes greater public funding is required. A large part of the aid will be put forward together with private initiatives, in order to achieve a multiplier effect.

	SPAIN 2020	SPAIN 2021	EU 27 2021
MACROECONOMIC VARIABLES			
Real GDP growth (%) (1)	-10.8	5.1	5.4
Unemployment Rate (LSF), annual average (%) (1)	15.5	14.8	7.0
HICP inflation (%) (1)	-0.3	3.0	3.0
HOUSING MARKET			
Owner occupation rate (%) (1)	75.1	75.8	70.0
Gross Fixed Investment in Housing (annual change)(1)	-11.2	-5.3	6.6
Building Permits (2015=100) (2)	172.1	218.0	134.0
House Price Index – country (2015=100) (2)	110.0	112.4	145.2*
House Price Index – capital (2015=100) (2)	124.3	126.3	146.1*
Nominal house price growth (%) (2)	-1.1	2.1	10.3*
MORTGAGE MARKET			
Outstanding Residential Loans (mn EUR) (2)	481,913	487,146	6,508,621
Outstanding Residential Loans per capita over 18 (EUR) (2)	12,355	12,441	17,782
Outstanding Residential Loans to disposable income ratio (%) (2)	64.9	64.2	62.8*
Gross residential lending, annual growth (%) (2)	0.9	35.1	12.2
Typical mortgage rate, annual average (%) (2)	1.7	1.5	2.0

* Please note that this value is the simple average of the available values in 2021.

Sources:
(1) Eurostat
(2) European Mortgage Federation - Hypostat 2022, Statistical Tables.

[1] Considering that approximately 75% of the outstanding mortgage loan portfolio it is linked to a floating rate

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 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?	As in previous years, in 2021, 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 a 91% of total outstanding mortgage lending. The remaining 9% is covered by credit cooperatives (8%) and financial credit establishments (1%).
What is the typical LTV ratio on residential mortgage loans in your country?	On average, in 2020, 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 (being the most common the Euribor 12m). Since 2015, as a result of the security they offer, initial-fixed interest rate mortgage loans, with a fixation period of over 10 years, have gained momentum, representing more than 60% of gross residential lending by the end of 2021..
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 cost 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 which 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 increased by 6.8%.
- → Construction slowed, with 6% less completions, affected by the global logistical problems and delayed deliveries.
- → Single family home prices increased due to changing housing demand in the pandemic.
- → The share of new loans with variable rates continued to fall, by 5 pps to 43.5%.
- → The share of new loans that amortise has levelled out the last years and was 87%.

MACROECONOMIC OVERVIEW

GDP increased by 5.1% compared to a decrease of -2.2% in 2020, according to Eurostat. Strong global and domestic demand made the economy recover. Government consumption and investment grew weakly, but other domestic demand components grew strongly. Exports of services grew strongly. Exports of goods performed well but were hampered by bottlenecks and supply problems, above all in the automotive industry. Investments have also recovered during 2021. The number of apartments starts increased rapidly in the first half of 2021 due to brisk demand. Unemployment increased slightly to 8.8% from 8.3%. The labour market started to recover and firms' employment plans are historically high in most sectors.

Inflation increased to 2.7% in 2021 compared to 0.7% in 2020. Also, core inflation increased to 4.1%. The core inflation is a measure of underlying inflation and aims to remove the effect of changes in the interest rates from the Consumer Price Index.

Government debt[1] as a percentage of GDP decreased from 39.6% to 36.7% in 2021. The Swedish economy has recovered from the fall in 2020 faster than excepted and central government finances have strengthened. The economic recovery resulted in higher tax income and lower expenditure for the central government. The decrease in government debt is equivalent to EUR -4.4 bn in 2021[2]. In comparison the government debt increased by EUR 28.3 bn in 2020.

HOUSING MARKETS

Housing completions decreased over the last two years, but from comparably high numbers. 47,300 dwellings were completed in 2021 which is a 6 % decrease from last year. Construction is affected by the global logistical problems and delayed deliveries. The supply of cement is another uncertain factor in Sweden. To some extent construction starts were postponed and completions were delayed.

The demand for housing was still strong in 2021; housing starts increased by 16.5% to around 63,900 dwellings and building permits by 15% to 73,000. The levels of construction activity was comparatively high.

Stricter amortisation rules introduced in 2018 to curb interest-only loans still influence the housing market. They limit the possibility for some groups to enter the housing market - especially in the larger cities, where new construction is not affordable to many individuals.

The distinctive change in demand for housing that started in 2020 after the outbreak of the pandemic, which lead to increased demand for one-family homes and larger apartments, continued in 2021. Prices of single-family homes increased by 16.7% compared to 6.6% in 2020. They are most expensive in Stockholm region where prices increased by 18.6% in 2021. Single-family house prices in the Gothenburg and Malmö regions increased in 2021 by 15.7% and by 18.6% respectively. In the beginning of 2022, the prices of one-family homes have started to slow down.

The price increase for tenant-owned apartments was in general lower than for one-family homes in 2021. The prices for tenant-owned apartments increased by around 9% compared to around 4.5% in 2020.

The share of tenant-owned apartments among new construction has been relatively stable around 50%. However, in 2021 the share of rental apartment among new construction has increased to 64%. Overall, 38% of all apartments are tenant owned. For all dwellings (single family homes and apartments), the share is reversed: 62% owner occupied and 38% rental.

MORTGAGE MARKETS

MARKET DYNAMICS

Residential mortgage lending grew by 6.8% compared to 6.4% in 2020. The growth rate has increased in the last two years after having declined for four years in a row.

The demand for mortgage loans has continued and although amortisation of existing loans has increased, debt levels are relatively high. Several factors, to varying degrees, explain this: i) The population is growing due to immigration and relatively high birth rates, ii) Internal migration towards larger cities has driven housing markets in those areas. This in combination with a long period of comparably low housing construction has created a shortage of housing, iii) Dysfunctional apartment rental markets in growth regions due to rent control leaves few opportunities other than to buy an apartment. To get a rental apartment contract on the regulated rental market, often requires many years of queuing in the growth regions, iv) historically low mortgage interest rates.

Mortgage interest rates have been relatively stable for the last five years. The variable (3-month) rate was between 1.2 and 1.3% during 2021, which is

1 Government consolidated Gross Debt, Maastricht definition.

2 Eurostat.

slightly lower than the last five years. Initial fixed rates, for 1 to 5 years, have ranged from 1.3 and 1.4%, slightly lower than in previous years. Initial fixed rates over 5 years were stable around 1.5% until the end of 2021, when the interest rate increased slightly.

A general easing of the amortisation rules introduced in April 2020 after the outbreak of the pandemic, allowing exceptions such as interest only mortgages, was abolished in August 2021. If the temporary exemption from the amortisation requirements is excluded, the proportion of borrowers who amortise their mortgages (87%) in 2021 was unchanged compared to 2020[3]. Over a period of several years, amortisation has increased partly due to the stricter amortisation requirement (see below 4b).

The average LTV for new mortgage loans is 64.5%, which is lower than in 2020.

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

A number of measures have been taken in recent years to counteract high indebtedness. In 2010 Finansinspektionen (the Swedish Financial Supervisory Authority), introduced a mortgage cap, whereby home loans may not exceed 85% of the value of the home. They have also introduced a risk weight floor for Swedish mortgages, for bank capital purposes of, currently, 25%.

A further measure is the introduction of amortisation requirements. In June 2016 the Finansinspektionen's regulation on amortisation entered into force, requiring annual amortisation of at least 1-2% on mortgages with LTV (loan to value) 50% and higher. Stricter amortisation requirements entered into force from March 2018 requiring additional annual amortisation of 1 percent on mortgages with LTI (loan to income) 450% or higher. Due to the pandemic outbreak, 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 increased in March 2022 to 6.9% on an annual basis compared to 6.3% in March 2021.

Prices of one-family homes increased in the first quarter 2022 by 12.9% on an annual basis, compared with an increase by 16.7% for the full year 2021. The increasing inflation and interest rates have started to affect the housing market in the first half of 2022. Many expect the housing prices to cool down considerably during the year.

MORTGAGE FUNDING

Covered bonds are the most common form of mortgage funding. During 2021 the number of covered bonds outstanding decreased by -0.2% (in SEK) to EUR 242 bn. Total outstanding residential mortgages was in comparison EUR 490 bn. New issuance was EUR 57 bn in 2021.

GREEN FUNDING

Most Swedish mortgage institutions and banks offering mortgages, also offer different kinds of green mortgages. Green mortgages typically have a 0.1 percent 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 the green mortgages.

	SWEDEN 2020	SWEDEN 2021	EU 27 2021
MACROECONOMIC VARIABLES			
Real GDP growth (%) (1)	-2.2	5.1	5.4
Unemployment Rate (LSF), annual average (%) (1)	8.3	8.8	7.0
HICP inflation (%) (1)	0.7	2.7	3.0
HOUSING MARKET			
Owner occupation rate (%) (1)	64.5	64.9	70.0
Gross Fixed Investment in Housing (annual change)(1)	1.6	10.3	6.6
Building Permits (2015=100) (2)	111.0	127.7	134.0
House Price Index – country (2015=100) (2)	128.6	150.3	145.2*
House Price Index – capital (2015=100) (2)	116.2	137.8	146.1*
Nominal house price growth (%) (2)	6.7	16.9	10.3*
MORTGAGE MARKET			
Outstanding Residential Loans (mn EUR) (2)	468,966	490,376	6,508,621
Outstanding Residential Loans per capita over 18 (EUR) (2)	57,562	59,876	17,782
Outstanding Residential Loans to disposable income ratio (%) (2)	192.7	183.3	62.8*
Gross residential lending, annual growth (%) (2)	11.0	11.2	12.2
Typical mortgage rate, annual average (%) (2)	1.5	1.3	2.0

* Please note that this value is the simple average of the available values in 2021.

Sources:
(1) Eurostat
(2) European Mortgage Federation - Hypostat 2022, Statistical Tables.

3 Finansinspektionen, The Swedish Mortgage Market (2021), page 26. https://www.fi.se/sv/publicerat/rapporter/bolanerapporter/den-svenska-bolanemarknaden-2022/

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 almost 1% of the mortgage market in 2021.
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 2021.
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 2021 was 64.5%.
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 (43.5%), even though the share of variable interest rate decreased 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 you 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

IN A NUTSHELL

- → The economy has rebounded from the pandemic.
- → Mortgage rates historically low, fuelling housing demand.
- → First-time-buyers accounted for more than 30% of sales.
- → The labour market has rebounded rapidly.
- → New mortgages are mostly financed by bank deposits and pension funds.

MACROECONOMIC OVERVIEW

The economy was resilient during the COVID pandemic. The Government and Central Bank provided multiple measures to support the economy, businesses and local demand, by direct subsidies to support the labour market and increasing the liquidity of financial institutions. In addition, the Central Bank lowered key interest rates by 200 bps to a historic low of 0.75%. As elsewhere, liquidity and low mortgage rates fuelled demand in the housing market. This was in addition to high demand from first time buyers and a shortage of supply.

GDP is estimated to have increased by 4.3%, according to Statistics Iceland compared to a decrease of 7.1% in 2020. GDP growth was mainly driven by private consumption and investment. Compared to pre-pandemic GDP the output was still 3% lower than in 2019.

Unemployment increased, but not as much as expected at the beginning of the pandemic. The labour market has historically been flexible, which benefited the economy in these dire times. The tourist sector crowded out other sectors of the economy. The better skilled workers that became unemployed were absorbed by the emerging technology sector, e.g. gaming, pharmaceutical, software industry etc, which has developed as the fourth export pillar of the economy, alongside the historic ones: fisheries, energy intensive industries, i.e. aluminium and tourism. Tourism's share of GDP was on average 8.1% in the period from 2016 to 2019, but went down to 5% in 2021. It is expected that the tourist sector will rebound in 2022 and 2023 approximating 2019 levels.

Inflation was 3.7% by end 2021 , but inflationary pressure has mounted in 2022, mainly due to higher housing prices, labour costs, price changes in consumer goods and oil. Iceland is partially hedged against higher international energy prices due to the large share of geothermal heating, well insulated housing and competitively priced electricity, mainly generated with hydropower. In the first five months of 2022 the Central bank has raised its key interest rates by 1.75% to 3.75%.

The Government supported the economy with various programmes, which has put pressure on the budget. However, the post pandemic net debt of the Government is relatively low compared to other countries and currently represents around 60% of GDP for the General Government, i.e. the state and municipalities.

LOOKING AHEAD

Geopolitical uncertainties have affected the Icelandic economy principally by imported inflation. Iceland has over the last decades focused on energy independence: most of the local electricity and heating comes from renewable sources of geothermal and hydro. The economy is still vulnerable to higher oil prices for its fishing fleet, and in transport on land, air and sea.

According to the Central Bank of Iceland the economy is expected to grow by 4.6% in 2022, 2.6% in 2023 and 2.5% in 2024. It is expected that higher key interest rates will curb domestic demand. Economic policy both at the monetary and fiscal level has seldom been so challenging since the 1980s when the economy suffered from high inflation.

Unemployment decreased faster in 2022 than anticipated. Demand for labour is still high and it is expected that domestic companies will seek workers from abroad. One of the variables hindering growth in the labour market is shortage of affordable housing.

In terms of the tourist sector, reports suggest it will rebound to levels prior to 2019 in 2024, depending on how the pandemic and the Ukrainian conflict evolves. The outlook for the other main sectors of the economy is promising. Iceland benefits from higher food prices internationally due to its export of seafood and aquaculture produce plus high aluminium prices that benefits the renewable energy sector. The emerging technological sector has relatively good future prospects as well. This is subject to the uncertainties and risks, due to the fact that Iceland is an open economy and relies on imports of oil and grain based food produce.

HOUSING MARKETS

Investment in housing has increased substantially from its low point in 2010, following the GFC. Housing investments have been encouraged by policy makers due to a shortage of affordable housing and high numbers of first time buyers and imported labour. The Government implemented a strategy in cooperation with labour unions to increase affordable rental housing, as well as a help-to-buy programme, among other measures.

Investment in housing was 5.0% of GDP, from an average of 4.2% over the period of 1995-2021, with a low point of 2.1% in 2010, which explains partially the supply constraints that Iceland has experienced in recent years. House prices increased by 12.2% in the Reykjavik Capital Region.

Owner occupancy rate has historically been high at 73.1% of those over 18 years of age in 2021. The rental market is 13% and 11.2% live with their parents. The remaining 2.7% is defined as alternative accommodation.[1]

Causes of increasing house prices in 2021 and Q1 2022, are historically low mortgage rates (due to the pandemic policy response), a shortage of new housing despite record investments and large number of first time buyers. Artificially low mortgage rates, during the pandemic, allowed more first time buyers

[3] https://www.stjornarradid.is/library/01--Frettatengt---myndir-og-skrar/IRN/Frettatengd-skjol/Starfshópur%20um%20umbætur%20á%20húsnæðismarkaði%20-%20skýrsla%20-%20lokaeintak.pdf

to pass credit worthiness tests than in a normal interest rate environment. This has fuelled demand in the housing market.

Over the past decade there has been population increase in municipalities within 50 km of Reykjavik due to higher prices in the Capital Region and a shortage of detached housing.

Due to new data gathering methods, it is unclear how many housing units were completed in 2021, but it is estimated that 7,260 housing units were under construction in March 2022.[2]

MORTGAGE MARKETS

The total mortgage debt of households increased by 11% between 2020 and 2021. The average was 63.9% of GDP over the past decade, but 68.5% at year-end 2021. Interest rates on mortgages, both nominal and indexed, were at an historic low in 2021. Indexed mortgage rates have decreased further in the first quarter of 2022. Average nominal interest rates on new mortgages (granted by banks and pension funds) were 3.7% on nominal mortgages and 2.4% on indexed mortgages in 2021. The market share of banks increased substantially at the expense of the pension funds that have reduced their lending.

Loan to value (LTV) rules were altered due to financial stability concerns from 2020 to 2021. The Central Bank of Iceland lowered the maximum LTV from 85% to 80% in June 2021. The bank took further steps in June 2022 when it lowered the LTV ratio for first-time buyers from 90% to 85%. At the same time the bank introduced a benchmark interest rate floor for calculation purposes of Debt-Service-to-Income ratio (DSTI).[3]

Arrears at the 90 days level for households (total debt) was 0.9% for systemically important banks at the end of 2021. This was a decrease from last year.[4]

In May 2022, a proposal on housing policy was published. It emphasises affordable housing both for rent and to buy. The report states that 4,000 new housing units will be needed every year over the next five years due to population growth. The report will be discussed by policy makers in the coming months.

MORTGAGE FUNDING

Covered bond issuance is relatively new and developing in Iceland. According to data from the Central Bank of Iceland the stock of outstanding covered bonds in Icelandic krónur grew by ISK 63 bn. in 2021, compared to banks' net new lending to households totaled ISK 326 bn.[5]

Other funding sources are mostly deposits and direct lending from pension funds. The principal buyers of covered bonds are pension funds and insurance companies. Deposits by households and companies increased substantially during the pandemic. It is expected that covered bond issuance will become common after the pandemic, when short term interest rates are expected to increase.

GREEN FUNDING

The Icelandic banks have been providing green funding for example for cars that are fuelled by electricity, methane or hydrogen.

In terms of the Icelandic housing stock, it 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 double glazed.

Foreign funding partners of Icelandic banks are encouraging green lending and want the balance sheet of banks to reflect this. Banks have therefore issued green bonds denominated both in ISK and EUR.

	ICELAND 2020	ICELAND 2021	EU 27 2021
MACROECONOMIC VARIABLES			
Real GDP growth (%) (1)	-7.1	4.3	5.4
Unemployment Rate (LSF), annual average (%) (1)	5.5	6.0	7.0
HICP inflation (%) (1)	1.2	3.7	3.0
HOUSING MARKET			
Owner occupation rate (%) (1)	73.6	73.6	70.0
Gross Fixed Investment in Housing (annual change)(1)	1.2	-4.4	6.6
Building Permits (2015=100) (2)	n/a	n/a	134.0
House Price Index – country (2015=100) (2)	157.8	177.6	145.2*
House Price Index – capital (2015=100) (2)	152.8	171.4	146.1*
Nominal house price growth (%) (2)	6.4	12.5	10.3*
MORTGAGE MARKET			
Outstanding Residential Loans (mn EUR) (2)	14,604	14,739	6,508,621
Outstanding Residential Loans per capita over 18 (EUR) (2)	51,647	51,471	17,782
Outstanding Residential Loans to disposable income ratio (%) (2)	n/a	n/a	62.8*
Gross residential lending, annual growth (%) (2)	37.3	62.3	12.2
Typical mortgage rate, annual average (%) (2)	2.8	2.4	2.0

* Please note that this value is the simple average of the available values in 2021.

Sources:
(1) Eurostat
(2) European Mortgage Federation - Hypostat 2022, Statistical Tables.

2 Confederation of Industries

3 https://www.sedlabanki.is/utgefid-efni/frettir-og-tilkynningar/frettasafn/frett/2021/06/30/Reglur-um-hamark-vedsetningarhlutfalls-fasteignalana-til-neytenda/
https://www.cb.is/publications/news/news/2022/06/15/Rules-on-maximum-LTV-and-DSTI-ratios/

4 https://www.sedlabanki.is/library/Skraarsafn/Fjarmalastodugleiki/FS/2022/Fjarmalastodugleiki_2022_1.pdf

5 Ibid

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 2021 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 (HMS).
Which entities hold what proportion of outstanding mortgage loans in your country?	At year-end 2021 the deposit taking banks held 67% of the total outstanding mortgages to households, the pension funds 18% and IL – Fund (in winding-up) 15%.
What is the typical LTV ratio on residential mortgage loans in your country?	The maximum LTV in 2021 was 85%, but up to 90% for first time buyers (limit to price). This limited was lowered on 1 July 2022 80% and 85% respectively.
How is the distinction made between loans for residential and non-residential purposes in your country?	The Central Bank currently makes a clear distinctions between those loans in its accounts. Banks and pension fund require a pledge in the underlying property for a new mortgage.
What is/are the most common mortgage product(s) in your country?	Variable rate mortgage for 25 to 40 years (31% of outstanding mortgages at end of 2021, about 45% of new mortgages in 2021).
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 help to buy programme and pays interest expense benefits to low income households. First time buyer pay half of the stamp duty.

Norway

By Sveinung Sleire and Michael Hurum Cook, Finance Norway

IN A NUTSHELL

- → In 2021, the Norwegian economy bounced back strongly from the pandemic, with low unemployment and high capacity utilisation.
- → The central bank started to raise rates from a record low of zero percent in September 2021 and expects (June 2022) its benchmark rate to reach 3% by mid-2023.
- → Interest rates levels spurred house price growth to 5.2% in 2021 and 8.7% in 2020, expected to slow as interest rates rise.
- → Household debt continued to rise in 2020 and 2021 but slowed toward the end of 2021 to a debt-to-income level of 231%. The central bank forecast it to continue to rise over the next years.

MACROECONOMIC OVERVIEW

Economic activity grew rapidly through 2021, with the removal of pandemic related restrictions. Unemployment has edged lower, several businesses are experiencing labour shortages, particularly in health services and construction. The unemployment rate was 4.4% (Eurostat).

Inflation surged through 2021, mainly driven by higher electricity prices. Overall price growth is at the highest since the 1980s, with underlying inflation at 3.9%, well above the central bank's policy 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 has signalled that the policy rate will reach around 3% by the end of 2023.

The central bank forecasts strong growth in the mainland (non-oil) economy in 2022. The conflict in Ukraine dampens the outlook, although Norway has a very limited exposure to the Russian economy. Since the outbreak of the pandemic, economic activity has fluctuated in line with infection rates and government restrictions. The mainland economy grew by 4.2% in 2021, after falling by 3.0% in 2020.

During the pandemic, residential and commercial property prices increased substantially, and household credit growth accelerated. House price growth has been more moderate since the middle of 2021, with another upturn in the first quarter of 2022 mainly driven by fewer dwellings on the market.

Norwegian banks have over several years shown a high degree of profitability, low losses, and strong capitalisation.

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. The central bank sees the mainland economy growing by 3.5% in 2022, with the main growth drivers being consumption and exports. A tighter fiscal policy and higher interest rates are expected to slow economic growth in the years ahead.

Over the past two years, the pandemic and associated restrictions have limited household consumption, primarily n services. Household savings have been substantially higher than normal which allows spending rise more than income growth would imply. But high inflation and rising interest rates weigh on real disposable income.

House price growth is expected to flatten in the coming years, mainly because of higher interest rates. Housing investments fell after summer 2021 but picked up toward the end of the year which may indicate that high construction costs have had a smaller impact on investments than assumed. Housing investment is expected to grow in 2022, while slowing in the longer term as a result of lower price inflation and higher interest rates.

On the back of high capacity utilisation in the Norwegian economy, business investment is projected to expand in the years ahead. Investments in the service sector are expected to rise, as well as an increase in manufacturing investment owing to climate and energy transition abroad and in Norway. The Norwegian central bank sees higher electricity prices and limited energy supply to dampen manufacturing investment in southern Norway, while boosting investment in power generation and transmission capacity. Higher interest rates will in isolation reduce investment growth.

HOUSING MARKETS

The housing market is characterised by a high ownership rate. According to Statistics Norway 76.4% of all households own their dwelling. The housing market is composed by about 55% of detached houses and more than 20% multi-dwelling buildings. More than 90% of households live in a dwelling defined as spacious by Statistics Norway.

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 variable-rate. A study published by the central bank shows that there has been a net migration from Oslo for the first time in 20 years, as the pandemic changed housing preferences increasing demand for larger dwellings in rural areas.

Prior to 2017, the housing market experienced an extended period of price growth. A combination of low interest rates, high income growth and low construction activity led to these higher prices. In 2017 the trend turned, particularly in Oslo. A pick-up in construction activity, lower population growth and a tightening of lending regulations - introducing a maximum loan-to-income requirement of 500% - dampened house price growth. In 2018 and 2019 the annual national house price growth was about 2%. The housing market picked up at the onset of the pandemic, primarily driven by record low interest rates.

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 rise to about 4.3% in 2024. A lending survey carried out by the central bank in the first quarter of 2022 shows that banks expect slightly lower credit demand from households and that funding costs and lending rates are expected to increase somewhat further in the following quarter.

The mortgage market is dominated by variable-rate mortgage loans. Residential mortgage demand rose at the onset of the pandemic, following the interest rate cuts. Overall credit demand has been stable since the end of 2020. An annual mortgage lending survey carried out by the Norwegian Financial Supervisory Authority shows that the average loan-to-value ratio for new loans remained stable at 65%.

New mortgages are typically written with a 25-year maturity. There is no prepayment 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 Norwegian 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 current regulation will be in force until 2024, to be evaluated in 2022, imposing requirements on debt-to-income ratio, loan-to-value ratio, debt-servicing ability and required principal payment on loans with a high LTV-ratio. The flexibility quota for new loans secured on residential property is set at 10%, with the exception of loans secured on new loans in Oslo which is at 8%.

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.

MORTGAGE FUNDING

Norwegian banks and covered bond companies (separate legal entities which main purpose is to fund appropriate assets with covered bonds) are on aggregate funded by 9% equity, 45% deposits and 46% wholesale funding. The latter consists of approximately 54% covered bonds as well as senior, unsecured bonds and short term-funding. Covered bonds are hence a very important source of funding of residential mortgages. Today there are 24 issuers of covered bonds in Norway. In 2020 a total of approximately EUR 30.1 bn of covered bonds was issued. The total level of outstanding bonds was close to EUR 134.3 bn 48% of the outstanding bonds are denominated in NOK, 47% in EUR, and the remaining 5% 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.

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.

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.

On the regulatory side, it is expected that the EU taxonomy will enter into force in Norway in autumn 2022. Reporting requirements as set out in the regulation will be in force from January 2023. The government has expressed sustainable finance a priority, so that Norwegian legislation adopts all relevant EU regulation related to sustainable finance.

This includes for instance the definition of NZEB (nearly-zero energy building) which is a criterion in the EU taxonomy classification of new buildings after 1 January 2021. A public consultation on the implementation of the NZEB-definition has not yet been issued.

	NORWAY 2020	NORWAY 2021	EU 27 2021
MACROECONOMIC VARIABLES			
Real GDP growth (%) (1)	-0.7	3.9	5.4
Unemployment Rate (LSF), annual average (%) (1)	4.4	4.4	7.0
HICP inflation (%) (1)	1.2	3.9	3.0
HOUSING MARKET			
Owner occupation rate (%) (1)	80.8	80.8	70.0
Gross Fixed Investment in Housing (annual change)(1)	-4.0	0.6	6.6
Building Permits (2015=100) (2)	96.8	97.4	134.0
House Price Index – country (2015=100) (2)	127.6	134.2	145.2*
House Price Index – capital (2015=100) (2)	141.7	144.8	146.1*
Nominal house price growth (%) (2)	5.7	5.1	10.3*
MORTGAGE MARKET			
Outstanding Residential Loans (mn EUR) (2)	299,365	328,387	6,508,621
Outstanding Residential Loans per capita over 18 (EUR) (2)	70,456	76,732	17,782
Outstanding Residential Loans to disposable income ratio (%) (2)	178.0	174.4	62.8*
Gross residential lending, annual growth (%) (2)	n/a	n/a	12.2
Typical mortgage rate, annual average (%) (2)	2.1	1.8	2.0

* Please note that this value is the simple average of the available values in 2021.

Sources:
(1) Eurostat
(2) European Mortgage Federation - Hypostat 2022, 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
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?	65 % 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 Renato Flückiger, Michael Müller, Beat Schneeberger (Valiant Bank AG)
and Remo Kübler (Swiss Bankers Association)

IN A NUTSHELL

→ The economy recovered quickly from the coronavirus-related slump seen in 2020. GDP grew by 3.7%.

→ Housing market largely unaffected by the pandemic. Prices reached new highs.

→ The mortgage market grew by 3.1% in line with the previous year. Loans by pension funds grew much faster than the overall market.

MACROECONOMIC OVERVIEW

The year started with continued economic challenges due to the pandemic-related restrictions, resulting in a shrinkage of -0.1% for the first quarter. However, the introduction of vaccines, the gradual easing of restrictions and increasing economic and social adjustment led to a recovery, with q-o-q growth reaching 1.8% in the second quarter and 1.6% in the third. A sharp rise in COVID-19 cases in the fourth quarter slowed growth to 0.3%. The GDP growth rate for the year as a whole was 3.7%, as the economy recovered from its 2020 slump rapidly, in particular compared with other countries. Economic output exceeded pre-crisis levels by summer. Almost all sectors contributed to this growth. Manufacturing, led by the chemical and pharmaceutical industries, made the biggest contribution with almost 2%. The hospitality and entertainment industries, which were still hit hard by social distancing rules at the start of the year, posted a slight y-o-y increase. Retail, meanwhile, contributed 0.2% to GDP growth.

Despite this, new negative consequences of the pandemic started to emerge, exacerbated by geopolitical factors. Chief among these effects were supply chain interruptions and rising energy and commodity prices, increasing inflation and weakening growth towards the end of the year. Expansionary fiscal and monetary policies throughout the year, together with very high employment (the unemployment rate was down to 2.4% by the end of the year), provided economic support. A significant economic slowdown is to be expected in 2022.

HOUSING MARKETS

The housing market remained largely unaffected by the pandemic in 2021, prices reached new highs.

The owner-occupied segment remained especially strong. Demand appeared to have settled at a much higher level than before the pandemic, with medium-sized and large properties particularly sought-after. Besides low mortgage interest rates, the trend towards working from home also boosted property sales. On the supply side construction of new homes has been in steep decline for years, sending prices sharply higher. At the end of Q4 2021, prices were up 7.3% y-o-y for single-family dwellings and 5.1% for condominium apartments. These increases, combined with strict regulatory requirements, make house purchase unaffordable for increasing numbers of households, accentuating the shift in demand for owner-occupied property from urban centres to peripheral regions.

Demand for rental apartments was bolstered by continued high levels of net immigration and the strong economic recovery. Immigration used to be focused on the largest cities and their suburbs, but has recently been spread more evenly across the whole of the country. Senior households have also contributed to demand because they are staying in their own homes longer and delaying the move to a retirement or care home. On the supply side, the number of new rental apartments planned has been falling for some years. Reduced construction activity (as a result of land scarcity and an increasing surplus supply in recent years) and high demand led to a trend reversal in the rental apartment market in 2021, with falling vacancy rates and properties spending less time on the market. The vacancy rate for rental apartments thus dropped further to 2.49% by mid-year.

MORTGAGE MARKETS

MARKET DYNAMICS

The mortgage market grew by 3.1% in 2021, compared with 3.3% in 2020. Banks had CHF 1.1 tn of mortgage loans on their books at year end,making the Swiss mortgage market one of the largest in the world. This is attributable to very high and rising property prices and liberal amortisation practices compared with other countries, with mortgage loans not being fully amortised for tax reasons. Interest rates for new mortgages was slightly higher in 2021 but only minimally above the all-time low. Overall, therefore, mortgage interest costs for homeowners (including both new and existing mortgages) fell further. The reference rate for ten-year mortgages, averaged over the year, was 5 bps higher y-o-y at 1.22%. The mortgage market is competitive with an increasingly diverse range of providers. Although margins have been declining for years, it remains extremely attractive for lenders and brokers alike. Banks continue to play a dominant role, with 95% of all outstanding mortgages. The cantonal banks have the largest market share (roughly 36%), followed by the two global systemically important banks (25%) and the Raiffeisen banks (17%). Insurers and pension funds are also major mortgage lenders. The latter in particular have been rapidly gaining market share since 2015. According to the most recent figures (for 2020), their share of new business is around 18%, and they posted much faster growth than the overall market in 2021 at 10%. Online brokerage platforms grew by 30% y-o-y, bringing their market share to approximately 6%. An increasing number of banks use brokers or develop their own brokerage platforms to stay competitive. However, increasingly stringent regulation is limiting the banks' scope and their ability to compete on the mortgage market.

NON-MARKET LED INITIATIVES

In 2021, as in previous years, the Swiss National Bank (SNB) repeatedly warned of further increased risks in the mortgage market. In view of an increase in affordability risks and the rise in housing prices, the SNB announced that it would examine the reintroduction of the countercyclical capital buffer (CCyB), which had been deactivated in March 2020 to dampen the effects of the pandemic, and further macroprudential measures. However, it has been argued by the Swiss Bankers Association that the SNB's risk assessment methods overstate affordability risks. In particular, SNB reports do not sufficiently account for stabilising effects (e.g. additional amortisation duties) or fundamental factors for the development of the real estate and mortgage markets such as population growth, land scarcity, wealth and asset accumulation. Moreover, SNB analyses focus exclusively on annual new business, whereas an adequate assessment of financial market stability should be based on banks' overall, long-term mortgage portfolios with their significantly lower loan-to-value ratios.

MORTGAGE FUNDING

Traditionally, Swiss banks finance their mortgage lending largely by customer deposits, although the specific share varies from bank to bank. According to the SNB, mortgage loans account for approximately 50% of Swiss banks' domestic assets, while customer deposits amount to approximately 65% of their domestic liabilities (as of 2020).

Covered bonds collateralised by real estate mortgage loans are also an important source of funding, accounting for about 13% of total outstanding mortgage loans in 2019. Historically, the Swiss covered bond market has been mainly driven by two dedicated institutions, Pfandbriefzentrale der schweizerischen Kantonalbanken AG and Pfandbriefbank schweizerischer Hypothekarinstitute AG, both with the right to issue Swiss Pfandbriefe for their member banks under the Pfandbrief Act. 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 aforementioned Pfandbrief legislation.

Besides customer deposits and covered bonds, banks resort to interbank loans, other bonds and equity to refinance their mortgage lending business.

GREEN FUNDING

In the late autumn of 2021, the SBA, the umbrella association of banks in Switzerland, began working on a new self-regulation regime aimed at promoting energy efficiency. The new guidelines will require member banks to discuss and assess the need for property renovations with their customers. The aim is to motivate owners to address the issue of maintaining the value of their properties and thus also preserving their invested capital over the long term. Publication of the new guidelines is expected in June 2022.

	SWITZERLAND 2020	SWITZERLAND 2021	EU 27 2021
MACROECONOMIC VARIABLES			
Real GDP growth (%) (1)	-2.4	3.7	5.4
Unemployment Rate (LSF), annual average (%) (1)	4.8	5.1	7.0
HICP inflation (%) (1)	-0.8	0.5	3.0
HOUSING MARKET			
Owner occupation rate (%) (1)	42.3	42.3	70.0
Gross Fixed Investment in Housing (annual change)(1)	-1.1	n/a	6.6
Building Permits (2015=100) (2)	86.8	n/a	134.0
House Price Index – country (2015=100) (2)	112.5	112.5	145.2*
House Price Index – capital (2015=100) (2)	n/a	n/a	146.1*
Nominal house price growth (%) (2)	5.3	9.1	10.3*
MORTGAGE MARKET			
Outstanding Residential Loans (mn EUR)[3] (2)	n/a	n/a	6,508,621
Outstanding Residential Loans per capita over 18 (EUR) (2)	n/a	n/a	17,782
Outstanding Residential Loans to disposable income ratio (%) (2)	n/a	7.8	62.8*
Gross residential lending, annual growth (%) (2)	n/a	n/a	12.2
Typical mortgage rate, annual average (%) (2)	1.3	1.2	2.0

* Please note that this value is the simple average of the available values in 2021.

Sources:
(1) Eurostat
(2) European Mortgage Federation - Hypostat 2022, Statistical Tables.

SWITZERLAND FACT TABLE

Which entities can issue mortgage loans in your country?	Mainly 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?	According to SNB data, the median LTV for mortgage loans granted in 2021 stood at 67%, which is roughly 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 typically ranges between 2 and 15 years. However, money market mortgages (with different maturities) are also widespread.
What is the typical/ average maturity for a mortgage in your country?	Most of the 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 (e.g. 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 Swiss scheme to promote home ownership allows 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 continued to grow strongly fuelled by strong demand and limited supply.
- → Demand for city centre properties returned as people returned to office working.
- → Lenders returned to higher LTV lending as pandemic concerns eased.
- → Levels of arrears and possessions fell to new record lows.
- → Labour market conditions tightened significantly and the Bank of England Base rate increased to 0.25%.

MACROECONOMIC OVERVIEW

The economy grew by 7.4% following a decline of 9.3% in 2020. Growth was better than originally expected as the impact of the pandemic was less severe than feared. Quarterly growth rates were uneven due to the imposition of the third lockdown in the first quarter of 2021. GDP fell by 1.2% in the first quarter of the year, but after the lockdown was lifted in March, growth was positive in the following three quarters.

Until September workers were supported by the Coronavirus Job Retention Scheme. This paid towards the wages of people who could not work or whose employers could not afford to pay them, up to a monthly limit of GBP 2,500. This helped support spending, and allowed conditions in the labour market to remain stable. When the scheme ended there were fewer redundancies than feared, and by the end of the year unemployment had fallen from 5.0% in Q4 2020 to 4.1%. However, the labour inactivity rate increased over 2021. In the final quarter of 2021 this was driven by people with long term sickness and 'other' reasons. At the same time the number of job vacancies had begun to increase, and reached a record level by the end of the year. Due to compositional effects, where job losses were concentrated in lower paid sectors, total pay (including bonuses) grew to a rate of 8.8% in the second quarter of 2021, before falling to 4.3% in the final quarter where most of the compositional effects were no longer present. However, this was still above pre-pandemic levels of 2.5% in Q1 2020.

The Consumer Prices Index (CPI) rose by 5.4% in the 12 months to December 2021, up from 0.6% at the end of 2020. This was the highest rate since March 1992 and was driven by higher energy costs, strong demand for goods and services, and supply chain disruption caused by the pandemic. Because of this and the tight labour market conditions, the Bank of England felt it necessary to increase the Base Rate from a historic low of 0.10% to 0.25% in December 2021 in order to bring inflation back towards its 2.0% target.

LOOKING AHEAD

The conflict in Ukraine has added to global price pressures, and has resulted in UK consumer prices increasing by 9.0% in the 12 months to April 2022. It is expected that inflation will increase further this year. Wage growth has also increased to 7.0% in the first quarter of 2022. The Base Rate increased to 1.00% with the potential to rise further in coming months.

These price pressures are putting growing strains on UK households, and is likely to result in households reducing spending or using their savings to support them whilst prices remain elevated. The rise in the Base Rate will put some pressure on mortgage affordability. This may help ease demand in what has been a very buoyant market over the past two years, boosted by the stamp duty holiday and an increased appetite to move as people adjust to new ways of working in a post-pandemic world. However, mortgage interest rates still remain at relatively low levels. Arrears are at record low levels, but could start to increase as lower earning households with little savings struggle with rising costs.

HOUSING MARKETS

House prices increased by 9.3%, compared to just 2.9% in 2020, and 1.0% in 2019. The pandemic has had a significant impact on the housing market. Demand has been boosted by the stamp duty holiday from June 2020 to September 2021, and a surge in demand caused by people re-evaluating their housing needs for a post-pandemic world. Many workers have adopted a more flexible approach to working with more time spent at home. Consequently, the demand for larger properties outside the city centres with outside spaces increased significantly. Demand for smaller properties such as flats in cities has not increased. Furthermore, the supply of properties on the market has been very low, potentially due to sellers being cautious about selling a property during a pandemic. This has added to the upwards pressure on prices. In London house prices increased by an average of just 4.1% compared to the national average of 9.3%, whereas prices in Wales increased the most at 12.8%.

Home ownership increased marginally to 64.9% in 2020/21 from 64.6%, the highest since 2013. Despite some disruption in mortgage markets due to the pandemic, low interest rates improved mortgage affordability for some people resulting in an increase in home ownership rates.

There were 174,880 house building starts and 175,390 completions in 2021. This is up 35% and 19% respectively on starts and completions in 2020. House building activity in 2020 was significantly affected by the coronavirus pandemic.

MORTGAGE MARKETS

Mortgage lending activity was buoyant in 2021. Gross lending was GBP 308.5 bn in the year, up 26% on 2020 during which lending was severely affected by pandemic restrictions. However, it was also up 15% on the GBP 269.0 bn in 2019.

Average mortgage interest rates increased marginally to 2.11% from 2.00% in 2020 but remained below the 2.25% average in 2019. The Base Rate was cut from 0.75% to 0.10% in March 2020 in response to the pandemic. Mortgage interest rates initially increased, especially at higher LTVs (above 75%), as many lenders priced in the increased risk or removed these products from the market. However, in 2021, as conditions normalised, rates begun to fall again and the spread on rates between higher and lower LTV products narrowed considerably. The average rate on a 2 year fixed mortgage at 95% LTV was 2.77% in December 2021 compared to 4.2% in December 2020. For the same product with a 75% LTV the average rate was 1.57% in December 2021 compared to 1.86% in December 2020. The Bank rate remained at 0.1% until December 2021 when it was increased to 0.25%.

A moratorium on re-possessions was introduced in March 2020, meaning no lenders would take an owner-occupied home into possession, but came to an end on 31 May 2021. Combined with support from the Job Retention Scheme the level of arrears and re-possession fell during the pandemic. By the final quarter of 2021 just 0.55% of mortgage balances were in arrears of more than 2.5% or in possession. This is down from 0.59% at the end of Q4 2020 and lower than the 0.57% in Q1 2020 before pandemic related restrictions were put in place.

MORTGAGE FUNDING

By the end of 2021, banks and building societies had drawn GBP 193 bn under the Bank of England's Term Funding Scheme with additional incentives for Small and Medium sized enterprises (TFSME). This scheme was launched in March to help ease pressure on lenders who would otherwise struggle to reduce deposit rates when interest rates are very close to zero and closed to new applicants in October 2021.

Funding from retail deposits grew strongly as spending opportunities were limited due to the third national lockdown whilst incomes continued to be supported by the Jobs Retention scheme. Household savings balances increased GBP 113 bn in the year. This is over double the average of GBP 52.1 in the three years before the pandemic, but still 36% down compared to 2020 during which economic activity was significantly limited due to pandemic related restrictions.

Savings interest rates fell over the year due to the high supply of household deposits and availability of central bank funding. Instant access rates fell to just 0.09% in December 2021 compared to 0.12% in December 2020. Fixed rates fell to 0.36% in December 2021 from 0.42% in December 2020.

The demand for UK wholesale funds continued to be relatively weak in 2021 due to the continuing availability of retail and central bank funding. UK covered bond issuance returned during 2021 with around GBP 3 bn of public issuance and a further GBP 6 bn of bonds issued but retained by their issuer to use as collateral. Maturities of GBP 14 bn meant that there was a further net decrease in bonds outstanding of GBP 5 bn to approximately GBP 81 bn by the end of the year.

GREEN FUNDING

The Green Homes Grant was a GBP 1.5 bn scheme launched in September 2020 designed to help homeowners improve the energy efficiency of their home. However, it closed to new applications in March 2021. The scheme faced a number of administrative challenges making it difficult for tradespeople to take part and homeowners to take part. Around 60,000 homeowners took part in the scheme, just 10% of the 600,000 target

It was announced that from 1 April 2022 the Government will support the installation of low carbon heating sources in England and Wales through the Boiler Upgrade Scheme. This provides discounts on the cost and installation of non-fossil fuel boiler options such as air and ground source heat pumps.

Mortgage lenders continue to bring new green products to the market, offering rate incentives, waiving fees or offering cashback where an energy efficiency improvement to the property is made. Increasingly products are focussed on the buy-to-let sector as Government has indicated that rental properties will likely need to be a minimum of EPC C by 2030.

There were no 'green' bonds issued by UK financial institutions in the year. However, one building society issued a number of 'social' bonds with a purpose of promoting home ownership to customers who may otherwise be unable to purchase a property.

	UK 2020	UK 2021	EU 27 2021
MACROECONOMIC VARIABLES			
Real GDP growth (%) (1)	-9.3	7.4	5.4
Unemployment Rate (LSF), annual average (%) (1)	4.5	4.5	7.0
HICP inflation (%) (1)	0.9	2.6	3.0
HOUSING MARKET			
Owner occupation rate (%) (1)	65.2	65.2	70.0
Gross Fixed Investment in Housing (annual change)(1)	-10.1	16.9	6.6
Building Permits (2015=100) (2)	n/a	n/a	134.0
House Price Index – country (2015=100) (2)	120.1	131.0	145.2*
House Price Index – capital (2015=100) (2)	113.8	118.4	146.1*
Nominal house price growth (%) (2)	5.1	10.2	10.3*
MORTGAGE MARKET			
Outstanding Residential Loans (mn EUR) (2)	1,669,740	1,862,831	6,508,621
Outstanding Residential Loans per capita over 18 (EUR) (2)	31,490	35,012	17,782
Outstanding Residential Loans to disposable income ratio (%) (2)	99.1	79.6	62.8*
Gross residential lending, annual growth (%) (2)	-9.9	30.0	12.2
Typical mortgage rate, annual average (%) (2)	2.0	2.1	2.0

* Please note that this value is the simple average of the available values in 2021.

Sources:
(1) Eurostat
(2) ONS data.
(3) European Mortgage Federation - Hypostat 2022, Statistical Tables.

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?	74% (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?	*[We have taken non-residential loans to mean commercial in this context]* The distinction is based on the property being purchased and the purpose it will be used for. A residential loan is used to purchase a property that a person will live in. A commercial loan is one that is used to purchase commercial land or buildings.
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

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
AUSTRIA	80,008	83,960	86,281	87,622	90,710	96,925	101,169	107,354	112,666	119,774	125,528	136,157
BELGIUM	161,723	172,049	183,615	189,484	196,877	207,117	220,114	233,224	246,528	263,419	275,378	291,948
BULGARIA	3,714	3,589	3,573	3,507	3,499	3,522	3,700	4,190	4,715	6,384	7,031	8,086
CROATIA	8,258	8,363	8,293	8,059	7,865	7,734	6,947	7,101	7,290	7,720	8,233	9,016
CYPRUS	11,921	12,545	12,679	11,854	11,655	11,661	11,515	11,123	8,670	8,605	8,649	8,385
CZECHIA	24,128	25,556	27,851	27,222	28,732	32,085	34,940	40,555	43,984	48,658	51,174	60,632
DENMARK	224,036	228,743	230,741	231,850	239,403	238,848	243,751	250,708	255,215	262,611	270,820	281,740
ESTONIA	5,973	5,882	5,846	5,896	6,064	6,323	6,661	7,107	7,603	8,119	8,656	9,449
FINLAND	76,747	81,781	86,346	88,313	89,762	91,955	94,056	96,129	97,781	100,354	103,610	107,759
FRANCE	795,200	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
GERMANY	1,152,195	1,163,783	1,184,853	1,208,822	1,237,410	1,279,456	1,326,901	1,378,810	1,445,987	1,530,434	1,629,423	1,744,433
GREECE	80,507	78,393	74,634	71,055	69,408	67,593	61,397	58,812	56,766	52,707	46,133	30,891
HUNGARY	24,659	21,950	19,985	18,499	17,146	14,943	14,024	13,602	13,604	13,715	13,321	14,660
IRELAND	103,043	100,588	97,462	94,862	90,593	87,898	86,195	84,045	83,301	81,637	80,891	79,634
ITALY	352,111	367,645	365,588	361,390	359,137	362,332	369,520	375,425	378,966	383,515	391,515	409,868
LATVIA	6,559	5,991	5,334	5,062	4,703	4,503	4,412	4,362	4,102	4,177	4,178	4,505
LITHUANIA	5,983	5,866	5,811	5,836	5,996	6,168	6,584	7,173	7,758	8,427	9,144	10,204
LUXEMBOURG	18,591	20,255	21,715	23,389	25,038	26,599	28,314	30,656	33,064	35,633	38,958	42,433
MALTA	2,666	2,893	3,088	3,278	3,592	3,905	4,204	4,548	4,949	5,459	5,824	6,459
NETHERLANDS	674,632	687,077	693,716	685,024	687,229	693,883	704,238	713,806	726,392	736,279	751,949	785,288
POLAND	67,526	71,883	79,434	80,812	82,555	88,390	89,592	93,111	96,728	104,146	104,607	111,423
PORTUGAL	114,515	113,916	110,520	106,585	102,469	98,516	95,377	94,093	93,952	93,846	96,176	98,149
ROMANIA	6,763	7,596	8,767	9,257	10,105	11,522	12,893	14,262	15,785	16,999	18,354	20,347
SLOVAKIA	10,849	12,320	13,701	15,304	17,364	19,714	22,508	25,383	28,271	31,001	33,787	37,677
SLOVENIA	4,844	5,164	5,259	5,307	5,348	5,525	5,717	5,976	6,239	6,587	6,760	7,373
SPAIN	620,433	612,657	594,405	569,692	552,613	526,105	511,253	497,711	494,459	487,561	481,913	487,146
SWEDEN	292,263	308,498	334,922	340,379	339,152	375,277	387,000	401,977	409,859	423,397	468,966	490,376
EURO AREA 19	4,278,500	4,375,965	4,420,893	4,353,403	4,389,089	4,462,579	4,559,493	4,689,962	4,847,016	5,036,178	5,235,463	5,512,340
EU 27	4,929,845	5,052,142	5,134,459	5,072,988	5,117,546	5,234,901	5,352,338	5,515,468	5,694,196	5,919,811	6,177,968	6,508,621
ICELAND	7,966	8,289	8,061	8,941	9,167	9,688	11,851	12,091	12,351	13,104	14,604	14,739
NORWAY	209,586	227,272	260,725	245,449	241,128	242,633	274,257	270,151	280,500	298,318	299,365	328,387
SWITZERLAND	613,474	665,927	702,335	720,066	763,933	853,457	884,018	832,915	896,413	960,608	n/a	n/a
UNITED KINGDOM	1,392,970	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	1,862,831
AUSTRALIA	536,739	596,014	621,219	533,808	563,057	1,019,506	1,107,474	1,124,581	1,115,494	1,134,301	1,183,191	1,297,342
BRAZIL	59,210	78,394	94,454	103,519	134,023	117,305	157,747	143,958	134,780	141,341	111,840	129,167
CANADA	759,388	814,996	867,566	817,605	896,116	887,681	1,004,421	996,750	991,832	1,123,183	n/a	n/a
JAPAN	1,653,230	1,803,053	1,600,151	1,273,765	1,280,797	1,437,861	1,557,115	1,457,980	1,609,079	1,711,418	1,691,298	n/a
RUSSIA	34,655	41,841	57,739	67,238	56,579	56,366	78,449	83,379	88,621	120,740	111,771	151,268
SINGAPORE	n/a	56,266	68,439	69,869	81,663	88,973	94,261	94,862	100,555	102,563	96,339	109,271
SOUTH KOREA	240,034	259,170	282,893	282,700	341,207	383,224	430,012	451,945	473,021	488,895	508,714	545,521
TURKEY	28,429	29,989	36,146	37,048	44,270	45,096	44,167	42,105	31,208	29,982	30,637	19,621
USA	7,822,706	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

***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:
- Denmark
- Netherlands
- Japan
- 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 conversion to EUR 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 EUR, 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 have been discontinued by the source as of 2019

2. Change in Outstanding Residential Loans

End of period, EUR million

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
AUSTRIA	6,553	3,952	2,321	1,341	3,088	6,215	4,244	6,185	5,312	7,108	5,754	10,629
BELGIUM	9,985	10,326	11,566	5,869	7,393	10,240	12,997	13,110	13,304	16,891	11,959	16,570
BULGARIA	-85	-125	-16	-66	-8	23	178	491	525	1,669	647	1,055
CROATIA	595	105	-70	-234	-194	-130	-787	153	190	430	512	784
CYPRUS	1,533	624	134	-825	-199	6	-146	-392	-2,453	-65	44	-264
CZECHIA	3,186	1,428	2,296	-630	1,510	3,353	2,855	5,616	3,428	4,675	2,516	9,457
DENMARK	7,339	4,707	1,998	1,110	7,553	-555	4,903	6,957	4,507	7,396	8,208	10,920
ESTONIA	-138	-91	-36	51	168	259	338	446	496	516	537	794
FINLAND	4,887	5,034	4,565	1,967	1,449	2,193	2,101	2,073	1,652	2,573	3,256	4,149
FRANCE	64,700	48,000	26,840	-55,413	18,493	33,281	32,957	54,868	55,336	69,083	58,345	77,592
GERMANY	5,226	11,588	21,070	23,969	28,588	42,046	47,445	51,909	67,177	84,447	98,989	115,010
GREECE	-52	-2,114	-3,759	-3,579	-1,646	-1,815	-6,196	-2,585	-2,046	-4,059	-6,574	-15,242
HUNGARY	2,196	-2,708	-1,965	-1,486	-1,353	-2,203	-919	-423	3	111	-395	1,339
IRELAND*	-44,904	-2,455	-3,126	-2,600	-4,269	-2,695	-1,703	-2,150	-744	-1,664	-746	-1,257
ITALY	71,775	15,534	-2,057	-4,198	-2,253	3,195	7,188	5,905	3,541	4,549	8,001	18,353
LATVIA	-312	-568	-657	-272	-359	-200	-91	-50	-260	75	1	327
LITHUANIA	-44	-117	-55	25	160	172	416	589	585	669	717	1,060
LUXEMBOURG	1,514	1,664	1,460	1,674	1,649	1,561	1,715	2,342	2,408	2,569	3,325	3,475
MALTA	208	227	195	190	314	313	299	344	401	510	365	635
NETHERLANDS	18,868	12,445	6,639	-8,692	2,205	6,654	10,355	9,568	12,586	9,887	15,670	33,339
POLAND	14,981	4,357	7,551	1,378	1,743	5,835	1,202	3,520	3,616	7,419	460	6,817
PORTUGAL	3,830	-599	-3,396	-3,935	-4,116	-3,953	-3,139	-1,284	-141	-106	2,330	1,973
ROMANIA	1,029	833	1,171	490	848	1,417	1,371	1,369	1,523	1,214	1,355	1,993
SLOVAKIA	1,380	1,471	1,381	1,603	2,060	2,350	2,794	2,875	2,888	2,730	2,786	3,890
SLOVENIA	911	320	95	48	41	177	192	259	263	348	173	613
SPAIN	8,620	-7,776	-18,252	-24,713	-17,079	-26,508	-14,852	-13,542	-3,252	-6,899	-5,647	5,233
SWEDEN	53,838	16,236	26,424	5,457	-1,227	36,125	11,722	14,977	7,883	13,538	45,568	21,411
EURO AREA 19	154,540	97,465	44,929	-67,490	35,686	73,490	96,913	130,470	157,053	189,162	199,285	276,877
EU 27	237,620	122,297	82,317	-61,471	44,557	117,355	117,438	163,130	178,728	225,615	258,158	330,652
ICELAND	1,574	322	-227	880	225	522	2,162	240	260	753	1,500	135
NORWAY	21,866	17,686	33,453	-15,275	-4,322	1,506	31,624	-4,107	10,350	17,817	1,047	29,022
SWITZERLAND	118,861	52,453	36,408	17,731	43,867	89,524	30,561	-51,103	63,498	64,195	n/a	n/a
UNITED KINGDOM	50,234	46,844	61,450	-17,842	129,031	142,925	-208,875	-3,558	31,916	134,164	-39,285	193,092
AUSTRALIA	135,446	59,274	25,205	-87,411	29,249	456,449	87,968	17,107	-9,087	18,807	48,889	114,152
BRAZIL	25,643	19,184	16,060	9,065	30,503	-16,717	40,441	-13,789	-9,177	6,561	-29,501	17,327
CANADA	134,961	55,608	52,570	-49,960	78,511	-8,435	116,739	-7,670	-4,918	131,351	n/a	n/a
JAPAN	306,116	149,823	-202,902	-326,386	7,033	157,063	119,254	-99,135	151,099	102,339	-20,120	n/a
RUSSIA	8,704	7,186	15,898	9,499	-10,659	-213	22,083	4,930	5,242	32,120	-8,970	39,498
SINGAPORE	n/a	n/a	12,173	1,430	11,794	7,310	5,288	601	5,693	2,008	-6,224	12,932
SOUTH KOREA	38,527	19,136	23,723	-193	58,508	42,017	46,787	21,933	21,076	15,874	19,818	36,807
TURKEY	8,916	1,560	6,157	902	7,222	827	-930	-2,062	-10,896	-1,226	655	-11,016
USA	-362,772	65,771	-327,085	-345,816	970,818	1,046,453	521,921	-1,040,378	782,310	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 EUR 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

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
AUSTRIA	12,941	14,501	15,441	15,874	16,877	21,166	20,363	28,130	28,106	30,568	38,069	37,204
BELGIUM	26,768	28,074	25,994	25,077	29,441	36,155	36,554	33,568	34,895	43,805	36,115	45,549
BULGARIA	669	656	599	635	697	973	1,157	1,620	1,709	1,793	2,013	2,767
CROATIA	n/a	n/a	753	549	530	669	1,721	663	974	1,159	1,592	1,596
CYPRUS	3,017	1,907	1,518	1,399	480	268	543	720	869	874	783	1121
CZECHIA	3,216	4,757	4,566	6,404	6,446	7,984	10,384	11,207	11,871	10,694	14,688	23,839
DENMARK	41,386	24,095	43,199	24,700	35,303	50,700	40,526	40,661	39,100	74,476	55,830	57,628
ESTONIA	419	490	566	686	819	942	1,038	1,206	1,315	1,399	1,368	1,899
FINLAND	20,972	22,537	21,400	17,514	17,540	33,307	29,511	30,982	33,970	33,705	38,088	32,461
FRANCE	168,801	161,601	119,337	139,800	112,700	212,300	251,300	272,700	203,100	246,600	252,400	273,700
GERMANY	142,700	150,600	162,900	170,100	177,100	208,600	209,400	214,300	227,800	245,000	269,700	299,600
GREECE	n/a	n/a	n/a	n/a	n/a	447	577	518	553	587	640	973
HUNGARY	1,398	1,294	1,214	623	885	1,343	1,688	2,352	2,875	3,012	2,844	3,524
IRELAND	4,746	2,463	2,636	2,495	3,855	4,848	5,656	7,286	8,722	9,540	8,365	10,467
ITALY	58,257	53,148	28,578	25,910	31,848	61,850	79,092	70,499	67,860	71,616	76,338	79,049
LATVIA	119	160	176	221	247	271	363	419	450	546	546	546
LITHUANIA	706	876	856	856	876	1,050	1,218	1,338	1,459	1,478	1,582	2,195
LUXEMBOURG	5,095	5,065	5,523	4,817	5,694	6,347	7,134	7,250	8,680	9,407	10,685	10,378
MALTA	210	227	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
NETHERLANDS	65,719	68,942	46,664	36,700	48,550	63,474	80,977	100,972	107,080	122,626	138,957	163,181
POLAND	2,666	n/a	6,646	7,716	8,003	9,850	9,389	10,695	11,810	12,270	13,037	18,908
PORTUGAL	10,107	4,853	1,935	2,049	2,313	4,013	5,790	8,259	9,835	10,619	11,389	15,270
ROMANIA	1,458	1,472	1,455	1,521	1,542	2,516	2,470	2,656	2,688	2,696	2,504	3,953
SLOVAKIA	3,329	3,922	3,803	4,873	5,840	6,362	9,865	8,019	7,972	7,277	8,402	11,117
SLOVENIA	1,213	928	705	597	633	886	1,059	1,118	1,068	1,130	1,512	2,008
SPAIN	69,479	37,448	32,279	21,857	26,800	35,721	37,492	38,861	43,056	43,591	43,970	59,425
SWEDEN	45,077	38,887	40,616	46,498	51,168	60,761	59,341	59,871	55,755	55,165	61,206	68,059
EURO AREA 19	591,370	555,607	468,793	469,426	481,133	697,292	776,811	824,907	785,368	878,907	937,486	1,044,049
EU 27	697,163	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
ICELAND	n/a	n/a	n/a	858	994	1,769	11,562	13,978	16,558	n/a	n/a	n/a
UNITED KINGDOM	155,981	159,303	178,217	209,257	252,301	305,534	300,855	296,364	303,739	306,465	276,178	358,911
AUSTRALIA	78,448	80,097	89,387	91,612	91,813	100,303	102,097	113,447	102,197	93,422	234,556	352,165
BRAZIL	34,901	48,575	47,059	52,100	49,791	33,549	25,469	27,014	26,277	30,249	29,955	39,929
CANADA	n/a	n/a	195,557	182,258	172,343	218,526	228,136	223,819	189,081	216,977	n/a	n/a
JAPAN	169,074	179,473	196,531	158,455	136,253	148,309	202,497	166,748	157,653	171,920	172,034	n/a
RUSSIA	9,439	17,536	25,847	31,980	34,623	17,065	19,873	30,664	40,695	40,506	53,729	65,395
TURKEY	15,939	12,728	12,305	19,893	12,566	15,464	17,078	16,611	6,872	8,808	15,680	7,437
USA	1,229,539	1,073,994	1,650,062	1,423,086	978,547	1,563,767	1,865,571	1,781,889	1,886,876	n/a	n/a	n/a

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

1) Time series breaks:
- France (2007)
- The Netherlands (2003: change of source; 2004-2007: change of methodology)
- USA (2006)

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

3) Notes:
- For further details on the methodologies, please see "Annex: Explanatory Note on data"
- n/a: figure not available
- Please note that the conversion to euros is based on the yearly average bilateral exchange rate (provided by the ECB)
- Please note that due to the conversion to EUR, 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 Japanese Fiscal year, from April to March
- For US, the credit mortgage lending series have been discontinued by the source as of 2019

4. Representative Interest Rates on New Residential Loans

Annual average based on monthly figures, %

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	TYPE
AUSTRIA	2.71	2.86	2.71	2.39	2.29	2.02	1.92	1.89	1.84	1.63	1.34	1.20	1
BELGIUM	3.59	3.81	3.63	3.45	3.17	2.49	2.11	2.09	1.91	1.78	1.57	1.46	1
BULGARIA	8.47	7.93	7.59	7.05	6.69	5.89	4.99	4.00	4.64	3.51	3.52	3.27	1
CROATIA	6.32	5.48	5.46	5.04	5.05	5.07	4.78	3.80	3.52	3.07	2.93	2.65	1
CYPRUS	4.73	5.31	5.33	5.03	4.43	3.59	3.06	2.77	2.41	2.12	2.10	2.17	2
CZECHIA	4.90	4.04	3.52	3.26	2.56	2.33	2.07	2.11	2.49	2.62	2.25	2.25	1
DENMARK	2.17	2.41	1.41	1.20	1.29	1.09	1.15	1.00	0.81	0.66	0.69	0.69	1
ESTONIA	3.50	3.42	2.86	2.54	2.43	2.25	2.28	2.34	2.59	2.54	2.48	2.15	1
FINLAND	1.98	2.50	1.97	1.98	1.80	1.35	1.16	0.95	0.86	0.73	0.69	0.77	1
FRANCE	3.42	3.80	3.56	3.19	2.96	2.32	1.88	1.60	1.55	1.36	1.26	1.15	1
GERMANY	3.69	3.84	3.06	2.76	2.49	1.95	1.76	1.83	1.87	1.52	1.25	1.26	1
GREECE	3.68	4.33	3.26	2.82	2.94	2.62	2.74	2.78	3.01	3.11	2.87	2.77	2
HUNGARY	10.88	10.46	10.51	9.85	8.48	6.21	5.32	4.70	4.43	4.86	4.56	4.43	2
IRELAND	3.13	3.46	3.28	3.44	3.42	3.49	3.26	3.19	3.01	2.93	2.81	2.73	1
ITALY	2.97	4.03	3.69	3.50	2.83	2.50	2.02	1.90	1.89	1.44	1.25	1.40	1
LATVIA	4.13	4.03	3.65	3.53	3.38	3.18	3.21	2.82	2.82	2.67	2.62	2.38	1
LITHUANIA	3.70	3.71	2.97	2.39	2.15	1.88	1.95	2.01	2.22	2.37	2.33	2.16	1
LUXEMBOURG	2.16	2.40	2.23	2.13	2.02	1.86	1.68	1.74	1.75	1.53	1.34	1.32	2
MALTA	3.43	3.38	3.40	3.03	2.85	2.99	2.84	2.83	2.71	2.58	2.60	2.73	1
NETHERLANDS	4.52	4.55	4.27	3.78	3.37	2.93	2.59	2.41	2.40	2.27	1.89	1.70	1
POLAND	6.48	6.70	6.95	5.14	4.10	4.40	4.40	4.40	4.40	4.32	3.47	3.06	1
PORTUGAL	2.43	3.74	3.89	3.26	3.21	2.38	1.90	1.59	1.38	1.10	0.80	0.83	2
ROMANIA	5.31	5.84	5.03	4.73	5.06	3.99	3.46	3.70	5.16	5.45	5.12	4.12	2
SLOVAKIA	5.21	4.84	4.69	4.07	3.39	2.72	1.97	1.82	1.54	1.35	1.12	0.98	1
SLOVENIA	3.34	3.77	3.37	3.20	3.21	2.53	2.33	2.50	2.31	2.32	2.28	2.11	1
SPAIN	2.53	3.37	3.30	3.04	2.96	2.24	2.01	1.95	1.97	1.99	1.73	1.49	2
SWEDEN	2.39	3.87	3.48	2.75	2.24	1.66	1.60	1.58	1.50	1.52	1.48	1.35	2
ICELAND	5.14	4.82	4.24	3.92	3.86	4.19	4.10	4.06	3.98	3.62	2.75	2.43	6
NORWAY	n/a	n/a	n/a	3.98	3.78	2.86	2.43	2.50	2.45	2.75	2.12	1.79	6
SWITZERLAND	2.58	2.39	2.18	2.02	1.89	1.77	1.63	1.53	1.45	1.37	1.27	1.19	6
UNITED KINGDOM	3.81	3.62	3.69	3.24	3.12	2.62	2.34	2.03	2.11	2.25	2.00	2.11	1
AUSTRALIA	7.15	6.54	5.68	5.10	5.08	4.83	4.51	5.51	4.65	4.15	3.65	3.45	2
BRAZIL	n/a	10.30	8.50	8.10	9.30	10.10	10.80	9.10	8.00	7.70	7.20	7.20	6
CANADA	n/a	n/a	n/a	3.14	3.05	2.70	2.70	2.89	3.44	3.30	2.55	n/a	1
JAPAN	2.36	2.32	1.95	1.87	1.62	1.52	1.06	1.23	1.36	1.21	1.31	1.33	6
RUSSIA	13.10	11.90	12.29	12.44	12.45	13.35	12.48	10.64	9.56	9.87	7.67	7.49	1
SOUTH KOREA	5.00	4.92	4.63	3.86	3.55	3.03	2.91	3.27	3.39	2.74	2.50	2.94	6
TURKEY	11.05	11.59	12.37	9.69	11.86	12.31	13.25	12.14	19.3	17.8	12.5	17.8	1
USA	4.69	4.45	3.66	3.98	4.17	3.85	3.65	3.99	4.54	3.94	3.11	2.96	5

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

1) Time series breaks:

- Czechia: 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:

- Poland
- Portugal

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, %

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
AUSTRIA	73.7	74.9	78.3	81.4	84.0	76.1	63.6	51.8	43.5	43.6	37.6	38.0
BELGIUM	32.7	9.9	2.2	5.8	4.2	0.6	0.9	1.4	6.7	6.4	5.1	5.1
BULGARIA	97.5	97.2	94.7	96.8	96.1	93.4	97.2	98.5	98.6	99.0	98.1	98.2
CROATIA	n/a	63.3	60.4	70.5	72.2	77.5	50.7	30.7	15.7	13.3	20.3	14.9
CYPRUS	66.0	73.6	80.3	85.7	91.7	95.1	96.1	97.9	94.8	93.2	92.7	97.9
CZECHIA	56.0	56.4	n/a	34.2	8.5	5.8	4.1	2.7	3.0	3.1	2.7	1.7
DENMARK	n/a	n/a	n/a	n/a	23.0	14.1	17.8	19.2	15.5	18.9	25.7	24.1
ESTONIA	63.1	72.6	77.2	86.3	88.2	89.3	89.4	88.9	88.6	89.9	86.8	90.7
FINLAND	n/a	n/a	n/a	95.8	93.7	92.9	92.5	95.2	96.3	96.6	96.9	95.6
FRANCE	11.8	10.2	8.8	7.1	6.1	3.1	2.2	1.6	2.5	2.4	2.3	2.6
GERMANY	16.6	16.9	15.0	16.3	15.8	12.4	12.0	11.4	11.7	11.0	10.5	9.7
GREECE	76.5	79.2	88.6	87.8	90.3	92.4	85.6	82.0	85.7	83.9	61.6	56.5
HUNGARY	83.4	75.6	61.5	44.1	47.1	45.0	41.9	41.0	16.0	7.0	1.2	0.7
IRELAND	70.2	78.4	87.7	83.6	86.6	66.0	65.4	49.5	39.0	26.9	22.8	19.8
ITALY	n/a	n/a	n/a	n/a	77.7	47.9	37.5	33.3	33.3	29.4	18.5	17.1
LATVIA	87.8	90.4	91.7	96.4	96.3	95.3	92.7	93.8	95.7	95.8	94.1	95.7
LITHUANIA	79.2	77.0	78.4	83.6	89.2	88.1	85.8	91.1	97.3	98.4	97.2	97.6
LUXEMBOURG	86.9	85.3	72.4	68.8	74.8	52.1	45.0	42.3	46.9	39.0	33.9	35.0
MALTA	90.8	98.4	89.9	93.4	72.8	72.4	72.2	74.2	62.7	44.4	57.7	65.5
NETHERLANDS	20.8	21.9	23.1	24.3	19.6	14.5	13.7	13.7	16.2	18.6	14.8	11.8
POLAND	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	97.0	93.7
PORTUGAL	99.2	98.9	94.6	91.2	92.3	92.1	66.4	60.3	65.0	71.7	67.9	69.0
ROMANIA	n/a	n/a	n/a	n/a	88.0	85.0	93.0	93.0	75.0	77.0	71.0	73.0
SLOVAKIA	30.1	24.6	14.8	9.6	4.0	2.7	3.0	1.4	1.2	1.4	2.1	1.9
SLOVENIA	96.3	94.9	97.3	98.5	98.0	77.7	59.1	45.6	47.8	52.8	50.6	n/a
SPAIN	86.4	81.8	77.8	67.7	64.5	62.9	46.3	42.4	36.3	35.5	34.0	25.1
SWEDEN	69.8	53.8	56.3	64.3	75.7	73.0	76.0	71.7	68.8	59.3	48.4	43.5
NORWAY	n/a	n/a	n/a	n/a	93.0	90.0	92.0	94.0	94.0	95.0	94.0	95.0
UNITED KINGDOM	56.9	44.1	35.9	19.0	13.2	15.8	16.0	11.5	7.5	7.9	8.6	6.4
ICELAND	—	—	—	—	—	38.5	52.8	55.5	49.3	60.2	64.9	52.3
CANADA	n/a	n/a	n/a	16.6	26.9	33.7	18.3	18.4	27.6	10.9	n/a	n/a
JAPAN	52.5	54.5	58.0	49.7	52.5	56.5	50.2	50.7	60.5	63.1	70.0	n/a
SOUTH KOREA	n/a	n/a	n/a	n/a	n/a	n/a	61.0	71.1	64.8	53.0	63.8	76.8

Sources: *European Mortgage Federation National Experts, National Central Banks, Statistical Data Warehouse – ECB*

1) Time series breaks:

2) The series has been revised for at least two years in:
- Bulgaria
- Netherlands
- Iceland
- Japan

3) Note:
- When available this dataset has been constructed on figures provided in the EMF Quarterly Review

6. Average amount of a Mortgage granted

EUR

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
BELGIUM	129,815	132,246	136,062	134,975	138,084	144,159	149,126	154,717	158,649	162,494	176,622	184,317
CZECHIA	n/a	n/a	n/a	41,833	40,703	47,913	59,036	69,054	71,745	n/a	n/a	n/a
DENMARK	126,849	129,030	131,649	130,288	132,820	138,767	142,238	145,861	149,845	154,635	164,356	174,230,65
FINLAND	93,186	93,990	94,502	94,416	94,171	95,735	97,215	98,735	100,030	104,792	108,449	110,600
FRANCE	127,016	135,352	137,241	142,563	145,313	149,018	153,857	161,350	170,187	179,050	180,036	192,894
GERMANY	n/a	n/a	185,000	n/a	n/a	212,000	n/a	236,000	n/a	277,000	n/a	338,000
HUNGARY	n/a	16,358	15,108	13,945	15,322	17,032	18,944	21,670	n/a	n/a	n/a	n/a
IRELAND	171,561	172,462	166,056	166,450	174,269	180,963	191,719	209,373	216,941	222,965	234,869	240,654
LATVIA	39,041	30,709	25,445	27,438	30,315	31,390	25,206	285,931	37,407	n/a	n/a	n/a
NETHERLANDS	288,739	285,749	260,801	243,811	247,394	254,266	224,392	243,455	261,502	277,879	291,919	316,755
POLAND	51,557	50,445	47,493	47,604	49,364	50,633	50,562	57,369	59,493	64,658	66,523	73,188
ROMANIA	38,954	36,880	29,153	24,209	33,306	34,418	35,632	39,299	41,899	43,472	40,308	50,380
SLOVAKIA	52,401	55,141	53,692	59,267	62,091	59,035	n/a	n/a	n/a	n/a	n/a	n/a
SPAIN	116,934	111,922	103,438	100,011	102,253	106,736	109,785	117,199	124,265	125,615	134,738	137,920
ICELAND	n/a	n/a	n/a	72,842	72,003	52,278	96,354	120,664	121,582	n/a	n/a	n/a
NORWAY	n/a	n/a	131,236	n/a	n/a	116,653	n/a	n/a	123,470	n/a	n/a	n/a
UNITED KINGDOM	170,093	170,332	184,480	182,461	206,027	241,876	222,875	214,301	216,769	242,748	239,493	260,910
AUSTRALIA	210,965	224,878	240,677	220,343	220,594	239,968	244,373	245,927	243,527	n/a	n/a	n/a
BRAZIL	40,662	51,313	51,025	52,260	50,171	37,652	33,150	42,692	37,308	40,334	35,923	32,381
CANADA	n/a	n/a	130,525	126,283	122,825	132,199	133,549	138,835	137,028	145,357	n/a	n/a
JAPAN	269,959	286,139	312,713	244,794	231,274	253,220	290,624	283,245	281,104	312,573	n/a	n/a
RUSSIA	31,315	33,492	37,367	38,761	34,185	24,396	23,201	28,211	31,047	30,874	30,176	34,265
TURKEY	26,643	23,310	23,932	23,782	21,509	22,530	22,476	19,247	13,818	13,121	13,642	11,635

Sources: *European Mortgage Federation National Experts, National Central Banks, Japan Housing Finance Agency*

1) Time series breaks:

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

- Finland
- Netherlands
- United Kingdom
- Brazil
- Russia

3) 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 EUR, 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

7. Total Outstanding Non-Residential Mortgage Loans

Total Amount , End of the Year, EUR million

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
CZECHIA	12,356	12,010	12,023	12,035	13,544	14,435	16,446	19,358	19,997	29,510	31,965	35,516
DENMARK	130,405	133,754	138,160	145,158	151,264	143,427	148,532	148,608	149,845	154,635	164,356	160,316
ESTONIA	3,658	3,395	3,371	3,223	3,250	3,339	3,509	3,382	2,393	3,501	3,716	3,941
FINLAND	15,441	16,473	16,854	18,174	19,501	20,713	22,117	24,129	26,493	28,406	29,850	30,762
GERMANY	251,450	259,134	254,014	250,631	247,345	250,310	249,295	261,102	265,796	299,137	316,469	218,358
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	8,380	7,051	6,805	6,112	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
IRELAND	32,734	29,979	29,269	27,710	25,108	22,737	20,493	17,890	14,211	10,966	9,428	7,289
ITALY	74,303	73,234	93,216	87,260	79,915	87,372	81,591	n/a	n/a	n/a	n/a	n/a
LATVIA	3,658	3,144	2,582	2,298	2,034	1,898	2,255	2,025	1,664	n/a	n/a	n/a
MALTA	1,506	1,489	1,447	1,350	1,391	1,228	1,252	1,286	1,399	1,533	1,646	5,952
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	12,125	11,722	13,693	13,116	13,055	13,952	13,616	18,532	16,187	16,230	19,606	18,632
ROMANIA	19,264	20,140	19,966	19,244	17,763	16,887	15,409	14,189	14,427	15,000	14,986	15,410
SPAIN	396,719	339,739	235,151	159,599	134,581	129,690	115,889	185,105	166,228	156,024	150,562	139,960
ICELAND	22,958	13,660	11,430	11,332	11,092	n/a	n/a	n/a	n/a	n/a	n/a	n/a
NORWAY	11,943	12,391	14,195	13,626	13,550	13,027	13,752	13,399	19,556	19,215	19,012	20,523
AUSTRALIA	351,844	375,709	398,830	482,944	524,797	558,371	599,575	589,029	588,282	610,387	620,659	683,702
BRAZIL	3,367	13,329	15,885	16,508	20,555	15,430	18,827	13,316	10,439	7,489	4,498	4,539
CANADA	207,478	220,568	249,441	242,341	280,904	291,451	339,483	345,150	379,414	439,130	n/a	n/a
JAPAN	244,961	265,850	237,219	188,247	190,401	232,126	257,421	247,373	267,478	277,026	264,111	n/a
RUSSIA	4,101	3,534	3,327	3,080	2,573	1,711	1,693	1,081	1,773	300	203	158
SINGAPORE	n/a	77,951	94,347	95,637	110,496	119,790	126,099	124,970	131,037	132,847	124,156	140,579
USA	2,527,915	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

Sources: *European Mortgage Federation National Experts, National Central Banks, Federal Reserve*

1) Time series breaks:
- Latvia: 2003 (due to a change in the statistical source)

2) The series has been revised for at least two years in:
- Denmark
- Japan
- Singapore
- USA

3) Notes
- For further details on the methodologies, please see "Annex: Explanatory Note on data"
- n/a: figure not available
- Please note that the conversion to EUR 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 EUR, 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 have been discontinued by the source as of 2019

8. Total Outstanding Residential Loans to GDP Ratio

%

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
AUSTRIA	27.0	27.1	27.1	27.1	27.2	28.2	28.3	29.1	29.2	30.1	33.1	33.8
BELGIUM	44.5	45.8	47.5	48.2	48.9	49.7	51.2	52.4	53.6	55.1	60.3	57.7
BULGARIA	9.7	8.7	8.5	8.3	8.1	7.7	7.6	8.0	8.4	10.4	11.5	11.9
CROATIA	18.1	18.4	18.6	18.2	17.9	17.1	14.7	14.2	13.8	13.9	16.4	15.8
CYPRUS	61.4	63.3	65.2	65.9	67.0	65.2	60.8	54.9	40.1	37.4	40.0	35.8
CZECHIA	15.3	15.5	17.1	17.1	18.2	18.9	19.7	20.9	20.8	21.6	23.7	25.5
DENMARK	92.1	92.3	90.6	89.6	90.1	87.5	86.1	85.0	84.4	84.8	86.9	83.7
ESTONIA	40.5	35.3	32.6	31.2	30.2	30.6	30.6	29.8	29.4	29.3	32.3	30.8
FINLAND	40.8	41.3	43.0	43.2	43.4	43.5	43.2	42.5	41.9	41.8	43.5	42.9
FRANCE	39.9	41.0	41.7	38.5	38.8	39.4	40.3	41.5	42.7	44.2	49.2	48.6
GERMANY	44.9	43.2	43.2	43.0	42.3	42.3	42.3	42.2	42.9	44.1	48.4	48.9
GREECE	35.9	38.6	39.6	39.5	39.2	38.3	35.2	33.2	31.6	28.8	27.9	16.9
HUNGARY	24.7	21.5	19.9	18.1	16.1	13.2	12.1	10.7	10.0	9.4	9.7	9.5
IRELAND	61.6	58.6	55.5	52.9	46.5	33.4	31.9	28.3	25.5	22.9	21.7	18.9
ITALY	21.9	22.3	22.5	22.4	22.1	21.9	21.8	21.6	21.4	21.3	23.6	23.1
LATVIA	36.6	30.5	24.1	22.2	19.9	18.3	17.4	16.2	14.1	13.6	14.2	13.7
LITHUANIA	21.3	18.7	17.4	16.7	16.4	16.5	16.9	17.0	17.0	17.2	18.5	18.4
LUXEMBOURG	43.8	45.7	46.7	47.6	48.3	49.1	50.4	52.7	54.8	56.8	60.7	57.9
MALTA	39.1	41.8	41.9	41.3	41.0	39.1	39.9	38.1	38.2	38.9	44.6	44.0
NETHERLANDS	105.5	105.6	106.2	103.7	102.3	100.6	99.4	96.7	93.9	90.6	94.4	91.7
POLAND	18.6	18.9	20.5	20.6	20.2	20.5	21.0	19.9	19.4	19.5	19.9	19.4
PORTUGAL	63.8	64.7	65.7	62.5	59.2	54.8	51.1	48.0	45.8	43.8	48.1	46.5
ROMANIA	5.4	5.8	6.6	6.4	6.7	7.2	7.6	7.6	7.7	7.6	8.4	8.5
SLOVAKIA	15.8	17.2	18.7	20.6	22.8	24.7	27.8	30.1	31.6	33.0	36.7	38.8
SLOVENIA	22.8	23.6	22.6	21.3	20.4	20.0	19.6	19.0	17.8	13.6	14.4	14.2
SPAIN	104.1	94.6	84.8	76.0	68.9	61.2	55.1	49.6	46.0	39.2	43.0	40.4
SWEDEN	78.0	74.7	77.9	77.0	77.3	82.4	83.0	83.7	87.1	88.8	97.6	91.2
EURO AREA 19	47.3	46.7	46.6	45.1	44.2	43.4	42.9	42.4	42.3	42.0	45.9	44.9
EU 27	47.0	46.4	46.5	45.1	44.3	43.7	43.3	42.7	42.5	42.2	46.1	45.0
ICELAND	76.7	75.8	70.2	73.7	68.0	61.3	63.0	55.2	55.5	59.1	77.1	68.5
NORWAY	64.7	63.4	65.8	62.4	64.1	69.8	82.2	76.5	75.8	82.5	94.1	80.6
SWITZERLAND	123.0	134.6	128.0	130.4	134.2	137.9	134.9	140.6	133.5	143.9	146.9	n/a
UNITED KINGDOM	74.1	74.9	70.9	70.3	69.4	65.9	62.9	64.6	64.1	66.5	69.2	69.1
AUSTRALIA	62.0	59.3	51.6	45.0	51.0	83.8	101.6	95.7	92.2	91.2	101.8	99.5
BRAZIL	3.6	4.2	4.9	5.6	7.2	7.2	9.7	7.9	8.3	8.4	8.8	9.5
JAPAN	38.1	40.3	32.8	32.5	34.7	35.9	34.4	33.4	37.7	37.4	n/a	n/a
RUSSIA	3.0	2.8	3.4	3.9	3.7	4.6	6.8	6.0	6.3	8.0	8.6	10.1
TURKEY	n/a	28.0	29.8	30.2	34.5	32.1	32.7	31.2	31.5	30.6	8.6	10.1
SINGAPORE	27.8	28.8	28.4	27.4	30.5	29.0	31.7	31.4	32.4	33.1	31.9	32.6
SOUTH KOREA	4.9	5.0	5.3	5.1	6.3	5.8	5.6	5.5	4.7	4.4	35.5	35.9
USA	68.9	70.4	59.8	56.9	62.0	56.3	57.8	50.5	54.6	n/a	n/a	n/a

Sources: *European Mortgage Federation National Experts, European Central Bank, National Central Banks, Eurostat, Bureau of Economic Analysis, Federal Reserve*

1) Time series breaks:
- See Table 1 and Table 27

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

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 EUR 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

%

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
AUSTRIA	43.4	44.3	43.8	44.4	44.7	47.1	47.3	48.5	49.3	50.6	53.3	57.5
BELGIUM	74.0	76.4	79.3	80.7	82.9	85.9	88.6	90.4	92.6	94.8	97.9	100.3
BULGARIA	15.5	14.0	13.8	13.4	13.3	12.9	12.9	13.6	n/a	n/a	n/a	n/a
CROATIA	28.7	29.2	30.0	29.2	29.2	27.7	24.1	23.4	22.7	23.0	n/a	n/a
CYPRUS	89.0	91.6	95.3	94.1	98.8	98.8	92.1	84.3	61.5	56.2	58.4	55.2
CZECHIA	27.4	28.0	30.7	31.0	33.5	35.8	37.3	39.4	39.0	40.5	41.7	44.5
DENMARK	191.8	189.4	186.8	184.6	188.1	180.0	175.5	174.7	173.0	172.7	177.2	175.4
ESTONIA	70.3	63.9	61.5	57.2	55.6	55.0	55.0	53.8	52.8	52.7	55.5	57.3
FINLAND	69.8	71.5	73.4	73.2	73.6	74.2	74.4	74.2	73.1	72.7	74.3	76.4
FRANCE	60.7	63.2	64.5	60.6	61.2	62.9	64.1	66.3	68.1	70.4	73.4	75.5
GERMANY	69.5	67.8	67.4	67.6	67.5	67.9	68.1	68.4	68.9	71.3	75.1	78.7
GREECE	51.1	55.2	59.0	60.2	58.7	57.3	52.8	50.7	48.4	43.2	38.9	24.3
HUNGARY	42.9	36.2	33.4	30.7	28.3	23.8	21.3	18.8	17.3	16.2	16.6	16.3
IRELAND	114.0	118.8	111.6	108.9	102.0	94.8	88.7	80.9	76.8	71.3	65.4	61.6
ITALY	32.1	32.7	33.4	32.9	32.4	32.3	32.6	32.4	32.1	32.3	33.9	34.2
LATVIA	55.1	49.9	41.0	37.5	32.9	29.8	27.7	26.0	22.8	22.1	21.5	21.8
LITHUANIA	30.8	28.9	27.4	26.3	26.6	26.6	26.4	27.6	28.1	28.0	28.0	29.3
LUXEMBOURG	113.4	117.1	120.0	121.8	125.8	131.7	136.1	138.1	143.1	146.6	151.6	163.2
NETHERLANDS	210.2	209.4	209.5	204.7	200.5	198.9	196.3	194.3	188.4	182.9	180.8	178.6
POLAND	29.7	30.9	33.3	33.4	33.0	34.3	34.5	33.3	32.9	33.2	32.3	33.2
PORTUGAL	88.2	89.5	89.3	86.9	83.7	77.8	72.6	69.4	66.4	63.5	65.6	64.4
ROMANIA	9.3	10.5	12.5	12.0	13.0	13.8	14.1	13.7	14.0	13.8	14.3	14.9
SLOVAKIA	26.0	29.3	31.7	35.3	39.1	42.2	46.7	50.2	51.0	53.3	56.9	62.2
SLOVENIA	21.0	21.9	22.9	23.1	23.0	23.3	23.1	23.1	22.7	22.6	22.3	22.9
SPAIN	89.9	88.2	90.3	86.9	84.2	77.1	73.0	68.8	66.5	62.4	64.9	64.2
SWEDEN	158.1	150.6	150.6	148.4	150.6	165.0	164.9	167.8	173.8	177.5	192.7	184.5
EURO AREA 19	70.3	70.5	71.1	69.7	69.3	69.0	68.7	68.7	68.7	69.3	72.1	73.4
EU 27	71.4	71.5	72.4	71.1	70.9	71.0	70.6	70.5	70.3	70.8	73.7	74.2
NORWAY	147.6	147.5	153.8	142.5	143.0	143.2	165.2	156.9	162.0	169.2	178.0	174.4
SWITZERLAND	214.1	206.2	209.8	214.6	222.0	217.9	227.7	218.2	240.0	243.3	n/a	n/a
UNITED KINGDOM	109.3	112.2	104.7	104.3	104.2	96.3	94.2	97.9	96.2	100.9	99.1	102.9
USA	89.2	90.2	75.8	74.5	80.3	72.7	74.4	64.8	70.0	n/a	n/a	n/a

Source: *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

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
AUSTRIA	11,749	12,255	12,506	12,602	12,930	13,664	14,075	14,812	15,458	16,356	17,059	18,428
BELGIUM	18,749	19,648	20,818	21,362	22,109	23,134	24,422	25,779	27,123	28,814	29,925	31,618
BULGARIA	597	581	581	574	577	585	620	709	805	1,099	1,220	1,412
CROATIA	2,361	2,397	2,381	2,318	2,266	2,234	2,017	2,075	2,151	2,290	2,450	2,696
CYPRUS	18,604	18,954	18,518	17,158	16,962	17,205	16,949	16,196	12,463	12,177	12,055	11,573
CZECHIA	2,800	2,958	3,213	3,137	3,317	3,703	4,036	4,684	5,078	5,609	5,886	6,983
DENMARK	51,869	52,589	52,702	52,546	53,801	53,198	53,692	54,733	55,293	56,528	58,033	60,110
ESTONIA	5,490	5,418	5,406	5,477	5,656	5,909	6,231	6,668	7,125	7,585	8,075	8,816
FINLAND	18,003	19,059	19,990	20,311	20,519	20,917	21,307	21,693	21,989	22,502	23,147	23,988
FRANCE	15,812	16,677	17,132	15,966	16,202	16,766	17,343	18,328	19,302	20,526	21,542	22,839
GERMANY	16,865	17,379	17,636	17,926	18,280	18,792	19,272	19,968	20,879	22,045	23,449	25,132
GREECE	8,796	8,553	8,173	7,840	7,710	7,545	6,893	6,616	6,400	5,947	5,204	3,494
HUNGARY	3,012	2,681	2,453	2,269	2,106	1,837	1,728	1,683	1,687	1,701	1,653	1,827
IRELAND	30,081	29,324	28,380	27,542	26,156	25,146	24,354	23,409	22,919	22,045	21,498	20,893
ITALY	7,168	7,454	7,401	7,277	7,094	7,147	7,294	7,408	7,478	7,633	7,798	8,216
LATVIA	3,758	3,494	3,150	3,019	2,841	2,750	2,729	2,737	2,603	2,676	2,699	2,935
LITHUANIA	2,356	2,368	2,375	2,404	2,487	2,573	2,778	3,069	3,364	3,673	3,984	4,442
LUXEMBOURG	47,089	50,225	52,227	54,839	57,208	59,127	61,324	64,541	68,145	71,839	76,906	82,597
MALTA	7,964	8,578	9,061	9,468	10,174	10,768	11,280	11,910	12,481	13,206	13,462	14,884
NETHERLANDS	51,654	52,234	52,381	51,443	51,338	51,507	51,925	52,189	52,656	52,877	53,442	55,442
POLAND	2,195	2,328	2,564	2,602	2,656	2,840	2,879	2,991	3,110	3,351	3,370	3,604
PORTUGAL	13,292	13,180	12,791	12,382	11,951	11,523	11,169	11,032	11,007	10,980	11,211	11,417
ROMANIA	412	465	539	570	624	714	804	895	996	1,079	1,170	1,308
SLOVAKIA	2,498	2,824	3,124	3,477	3,937	4,460	5,085	5,726	6,373	6,985	7,613	8,502
SLOVENIA	2,851	3,039	3,089	3,117	3,140	3,244	3,359	3,512	3,669	3,847	3,920	4,250
SPAIN	16,232	15,973	15,455	14,853	14,480	13,808	13,421	13,039	12,908	12,631	12,355	12,441
SWEDEN	39,391	41,152	44,281	44,624	44,089	48,348	49,451	50,763	51,241	52,434	57,562	59,876
EURO AREA 19	15,690	16,074	16,190	15,898	15,940	16,157	16,441	16,867	17,381	18,020	18,663	19,624
EU 27	13,765	14,120	14,315	14,108	14,171	14,462	14,744	15,165	15,626	16,221	16,882	17,782
ICELAND	33,621	34,822	33,628	36,932	37,318	38,894	46,846	46,762	46,073	47,430	51,647	51,471
NORWAY	55,904	59,715	67,412	62,481	60,540	60,047	67,159	65,455	67,321	70,932	70,456	76,732
SWITZERLAND	96,812	103,789	108,093	109,474	114,579	126,332	129,371	120,543	128,737	136,950	n/a	n/a
UNITED KINGDOM	28,184	28,908	29,913	29,332	31,620	34,125	29,827	29,550	29,975	32,344	31,490	35,012
AUSTRALIA	31,644	34,650	35,443	29,881	31,003	55,279	59,133	59,093	57,790	57,930	59,687	65,430
BRAZIL	433	563	668	720	918	791	1,048	943	870	900	704	803
JAPAN	15,402	16,818	14,939	11,898	11,967	13,430	14,533	13,598	15,000	15,950	15,784	n/a
RUSSIA	297	358	495	577	486	486	679	725	774	1,060	987	1,345
TURKEY	n/a	1,124	1,340	1,340	1,534	1,636	1,697	1,671	1,735	1,736	1,604	1,793
SINGAPORE	58,015	60,955	64,553	63,198	75,007	82,905	91,115	95,233	98,923	100,849	105,123	117,862
SOUTH KOREA	721	749	891	902	1,064	1,070	1,038	981	720	686	698	446
USA	33,494	33,424	31,686	29,917	33,574	37,467	39,186	34,701	37,532	n/a	n/a	n/a

Sources: *European Mortgage Federation National Experts, European Central Bank, National Central Banks, National Statistics Offices, Eurostat, Federal Reserve, US Bureau of Census*

1) Time series breaks:

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

3) Notes:

- For further details on the methodologies, please see "Annex: Explanatory Note on data"
- n/a: figure not available
- Please note that the population concerns residents who are more than 18 years old

B — THE HOUSING MARKET

11. Owner Occupation Rate

%

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
AUSTRIA	57.4	52.4	57.5	57.3	57.2	55.7	55.0	55.0	55.4	55.2	55.3	54.2
BELGIUM	71.6	71.8	72.4	72.3	72.0	71.4	70.9	72.4	72.3	71.3	71.1	71.3
BULGARIA	86.9	87.2	87.4	85.7	84.3	82.3	82.3	82.9	83.6	84.1	84.3	84.9
CROATIA	88.2	90.1	89.6	88.5	89.7	90.3	90.0	90.5	90.1	89.7	91.3	90.5
CYPRUS	73.1	73.5	73.2	74.0	72.9	73.0	72.5	70.7	70.1	67.9	68.6	68.6
CZECHIA	78.7	80.1	80.4	80.1	78.9	78.0	78.2	78.5	78.7	78.6	78.9	78.3
DENMARK	66.6	68.7	66.0	64.5	63.3	62.7	61.7	62.2	60.5	60.8	59.3	59.2
ESTONIA	85.5	83.5	82.2	81.1	81.5	81.5	81.4	81.8	82.4	81.7	81.4	81.6
FINLAND	74.3	74.1	73.9	73.6	73.2	72.7	71.6	71.4	71.6	71.1	70.7	70.3
FRANCE	62.0	63.1	63.7	64.3	65.0	64.1	64.9	64.4	65.1	64.1	64.0	64.0
GERMANY	53.2	53.4	53.3	52.6	52.5	51.9	51.7	51.4	51.5	51.1	50.5	49.5
GREECE	77.2	75.9	75.9	75.8	74.0	75.1	73.9	73.3	73.5	75.4	73.9	73.3
HUNGARY	89.7	89.3	89.8	88.7	88.2	86.3	86.3	85.2	86	91.7	91.3	91.3
IRELAND	73.3	70.2	69.6	69.9	68.6	70.0	69.8	69.5	70.3	68.7	69.3	70.0
ITALY	72.6	73.2	74.2	73.3	73.1	72.9	72.3	72.4	72.4	72.4	75.1	73.7
LATVIA	84.3	82.8	81.5	81.2	80.9	80.2	80.9	81.5	81.6	80.2	81.2	83.2
LITHUANIA	93.6	92.2	91.9	92.2	89.9	89.4	90.3	89.7	89.9	90.3	88.6	88.6
LUXEMBOURG	68.1	68.2	70.8	73.0	72.5	73.2	73.9	74.7	71.2	70.9	68.4	68.4
MALTA	79.5	80.2	81.8	80.3	80.0	80.8	81.4	81.3	81.6	79.8	81.9	81.9
NETHERLANDS	67.2	67.1	67.5	67.1	67.0	67.8	69.0	69.4	68.9	68.9	69.1	69.1
POLAND	81.3	82.1	82.4	83.8	83.5	83.7	83.4	84.2	84.0	84.2	85.6	85.6
PORTUGAL	74.9	75.0	74.5	74.2	74.9	74.8	75.2	74.7	74.5	73.9	77.3	77.3
ROMANIA	97.5	96.6	96.6	95.6	96.2	96.4	96.0	96.8	96.4	95.8	96.1	95.3
SLOVAKIA	90.0	90.2	90.4	90.5	90.3	89.3	89.5	90.1	91.3	90.9	92.3	92.3
SLOVENIA	78.1	77.5	76.2	76.6	76.7	76.2	75.1	75.6	75.1	74.8	74.6	74.6
SPAIN	79.8	79.7	78.9	77.7	78.8	78.2	77.8	77.1	76.3	76.2	75.1	75.8
SWEDEN	70.8	69.7	70.1	69.6	69.3	66.2	65.2	65.2	64.1	63.6	64.5	64.9
EURO AREA 19	66.8	66.9	67.2	66.9	66.9	66.4	66.3	66.1	66.2	65.8	66.0	66.0
EU 27	70.7	70.8	71.0	70.7	70.7	70.2	70.1	70	69.9	69.8	70.0	70.0
ICELAND	81.3	77.9	77.3	77.5	78.2	77.8	78.7	74.1	73.6	73.6	73.6	73.6
NORWAY	82.9	84.0	84.8	83.5	84.4	82.8	82.9	81.5	81.3	80.3	80.8	80.8
SWITZERLAND	44.4	43.8	43.8	44.0	44.5	43.4	42.5	41.3	42.5	41.6	42.3	42.3
UNITED KINGDOM	70.0	67.9	66.7	64.6	64.4	63.5	63.4	65.0	65.2	65.2	65.2	65.2
AUSTRALIA	68.3	68.8	67.5	67.2	67.2	67.5	67.5	66.2	66.2	66.3	66.3	n/a
TURKEY	n/a	59.6	60.7	60.7	61.1	60.4	59.7	59.1	59.0	58.8	57.9	57.9

Source: *Eurostat*

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
- At the time of writing, the majority of Eurostat's 2018 owner occupation rates were not yet available.

12. Building Permits

Number issued

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
AUSTRIA	42,050	46,200	41,200	47,100	45,000	52,300	61,400	71,100	59,100	69,600	62,300	56,500
BELGIUM	49,872	44,352	46,811	49,141	54,903	46,181	50,977	50,388	62,656	55,812	55,273	57,753
BULGARIA	12,832	10,973	10,616	12,278	15,848	17,264	18,157	5,562	5,956	5,980	5,860	7,074
CROATIA	13,378	13,470	9,742	7,744	7,743	6,950	9,398	12,509	11,719	15,370	14,083	16,654
CYPRUS	8,777	7,506	7,172	5,341	4,933	5,014	5,354	5,728	6,408	7,218	7,023	8,164
CZECHIA	39,158	39,656	34,006	29,475	28,127	28,886	31,002	32,069	30,702	31,606	31,747	33,995
DENMARK	17,097	18,930	13,720	12,338	17,422	24,301	32,023	28,289	35,809	29,936	24,265	31,763
ESTONIA	2,581	2,830	3,035	3,049	3,941	5,588	6,021	7,877	6,990	8,025	8,833	8,773
FINLAND	32,836	34,567	31,825	26,680	29,370	32,014	40,208	48,353	41,137	37,754	39,986	45,045
FRANCE	476,500	517,800	480,800	423,900	381,900	405,800	465,000	493,900	462,800	451,500	393,300	468,400
GERMANY	187,667	228,311	241,090	272,433	285,079	313,296	375,388	347,882	346,810	360,493	368,589	380,736
GREECE	23,380	15,114	9,066	5,675	4,620	4,618	4,305	4,930	5,685	6,044	6,915	9,888
HUNGARY	17,353	12,488	10,600	7,536	9,633	12,515	31,559	37,997	36,719	35,123	22,556	29,941
IRELAND	20,022	12,522	6,741	7,199	7,411	13,044	15,950	20,776	28,939	38,461	42,371	42,991
ITALY	119,409	112,391	82,058	53,408	46,796	42,920	44,583	51,859	54,664	55,104	49,100	61,241
LATVIA	1,844	2,022	2,262	2,369	2,295	2,193	1,998	2,766	2,750	2,973	2,670	2,967
LITHUANIA	5,876	4,951	5,768	7,118	6,868	7,028	8,397	7,682	8,082	7,651	9,021	12,384
LUXEMBOURG	3,892	4,323	4,305	3,761	6,360	4,558	4,846	5,048	5,468	5,619	5,112	6,105
MALTA	4,444	3,955	3,064	2,705	2,937	3,947	7,508	9,822	12,885	12,485	7,837	7,578
NETHERLANDS	61,028	55,804	39,354	27,233	41,320	55,599	53,567	69,741	70,034	58,108	67,151	75,547
POLAND	87,593	85,270	75,923	67,175	65,449	72,293	80,796	89,888	95,463	101,595	107,590	133,270
PORTUGAL	25,002	17,481	11,430	7,416	6,858	8,169	8,219	14,044	20,046	23,835	24,791	28,060
ROMANIA	42,189	39,424	37,852	37,776	37,672	39,112	38,653	41,603	42,694	42,541	41,311	51,287
SLOVAKIA	14,466	11,641	11,614	13,180	14,310	17,642	20,224	18,472	20,574	20,385	19,050	22,915
SLOVENIA	4,225	3,285	2,700	2,549	2,359	2,441	2,617	2,713	2,834	2,572	2,583	2914
SPAIN	91,662	78,286	44,162	34,288	34,873	49,695	64,038	80,786	100,733	106,266	85,535	108,318
SWEDEN	28,818	29,512	26,006	34,476	43,140	57,146	66,583	73,103	63,443	54,877	63,409	73,000
NORWAY	21,278	27,735	30,142	30,252	27,130	30,927	36,530	35,294	31,527	31,774	29,931	30,126
SWITZERLAND	n/a	n/a	n/a	n/a	n/a	51,126	51,653	49,985	48,305	43,953	44,378	n/a
AUSTRALIA	181,960	153,755	156,634	181,248	208,556	239,735	234,854	224,743	211,402	175,840	186,447	228,898
SINGAPORE	14,502	20,551	18,441	18,034	8,454	5,438	7,452	5,103	20,227	16,282	n/a	n/a
SOUTH KOREA	386,542	549,594	586,884	440,116	515,251	765,328	726,048	653,441	554,136	487,975	457,514	545,412
TURKEY	907,451	650,127	771,878	839,630	1,031,754	897,230	1,006,650	1,405,447	669,165	319,720	555,410	718,956
USA	604,600	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

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

1) Time series breaks:

- Austria: 2005 (source was changed from 2005 onwards)
- Denmark: 2012 (source was changed from 2012 onwards)

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

- Austria
- France
- Ireland
- Ireland
- Lithuania
- Netherlands
- Slovenia
- Sweden
- Turkey

3) Notes:

- For further details on the methodologies, please see "Annex: Explanatory Note on data"
- n/a: figure not available
- For Ireland: new data series taking into account the number of dwelling units
- For Italy: 2017 figure takes into accout the first 9 months

13. Housing Starts

Number of projects started per year

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
BELGIUM	47,569	41,574	44,818	44,696	52,826	43,520	n/a	n/a	n/a	n/a	n/a	n/a
BULGARIA	8,009	7,096	6,789	7,669	8,355	12,308	12,495	3,681	3,824	4,223	4,116	5,084
CZECHIA	28,135	27,535	23,853	22,108	24,351	26,378	27,224	31,521	33,121	38,677	35,254	44,992
DENMARK	15,969	18,753	15,134	11,491	17,227	20,622	29,186	25,793	29,688	27,099	25,666	34,062
ESTONIA	n/a	1,150	1,577	2,343	3,841	3,882	2,706	3,611	n/a	n/a	6,833	10,433
FINLAND	33,641	33,014	30,040	27,841	25,109	31,893	36,490	44,251	45,676	39,110	40,662	47,894
FRANCE	413,800	431,100	382,800	357,800	337,200	342,200	371,300	437,000	403,200	383,800	351,200	391,800
GREECE	52,344	29,974	18,817	11,748	9,619	9,264	9,286	10,336	13,337	17,432	19,731	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	6,391	4,365	4,042	4,708	7,717	8,747	13,234	17,572	22,467	26,237	21,686	30,724
ITALY	131,184	123,499	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
MALTA	n/a	3,955	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
POLAND	158,064	162,200	141,798	127,392	148,122	168,403	173,932	205,990	221,907	237,281	223,842	277,400
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	16,211	12,740	13,090	14,758	15,836	19,640	21,441	19,930	22,055	21,516	19,744	24,861
SLOVENIA	4,831	3,844	3,066	3,142	2,762	2,749	2,975	3,231	3,765	3,438	3,819	4,423
SPAIN	123,616	86,238	51,735	35,721	38,018	50,565	66,906	68,905	103,380	108,608	87,475	112,162
SWEDEN	27,530	26,686	21,314	30,474	36,719	48,204	61,367	63,892	52,992	49,107	54,869	63,900
ICELAND	321	142	466	769	582	1,612	1,133	2,836	2,525	3,792	2,406	n/a
NORWAY	22,226	28,225	29,202	27,634	25,404	30,150	31,278	30,719	29,496	25,037	23,695	25,425
UNITED KINGDOM	110,660	113,270	101,030	124,790	140,760	148,160	155,150	164,110	168,610	153,000	129,700	174,880
AUSTRALIA	158,229	150,018	151,373	168,337	201,073	227,495	234,180	216,961	224,334	175,308	183,535	228,418
BRAZIL	328,334	395,433	371,284	342,283	295,914	263,157	217,437	226,208	277,295	282,718	266,664	505,847
CANADA	189,930	193,950	214,827	187,923	189,329	195,535	197,916	219,763	212,843	208,685	217,880	244,141
JAPAN	819,020	841,246	893,002	987,254	880,470	920,537	974,137	946,396	952,936	883,687	812,164	865,909
SINGAPORE	17,864	20,736	21,395	20,357	11,571	8,082	6,918	5,397	13,121	19,467	n/a	n/a
SOUTH KOREA	n/a	424,269	480,995	425,944	507,666	716,759	657,956	544,274	470,706	478,949	526,311	583,737
USA	587,000	609,000	780,000	925,000	1,003,000	1,112,000	1,174,000	1,203,000	1,249,900	1,290,000	1,379,600	1,601,000

***Sources:** European Mortgage Federation National Experts, European Central Bank, National Central Banks, National Statistics Offices, Eurostat, US Bureau of Census*

1) Time series breaks
- Denmark: 2012 (source was changed from 2012 onwards)

2) The series has been revised for at least two years in:
- Denmark
- France
- Spain
- Sweden
- United Kingdom

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

14. Housing Completions

Number of projects completed per year

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
AUSTRIA	35,900	37,200	40,600	40,300	60,400	47,700	47,700	52,100	52,100	56,200	55,200	63,600
BULGARIA	15,771	13,953	9,970	9,250	9,993	7,806	9,342	2,205	2,324	3,052	3,376	3,898
CROATIA	14,972	12,390	11,792	10,090	7,805	8,059	7,809	8,496	10,141	11,726	11,957	n/a
CYPRUS	13,434	9,091	6,565	3,833	2,718	2,390	2,570	2,993	3,866	n/a	n/a	n/a
CZECHIA	36,442	28,630	29,467	25,238	23,954	25,095	27,322	28,575	33,868	36,406	34,412	34,581
DENMARK	12,334	13,417	17,632	16,644	15,704	15,007	21,138	24,459	28,507	32,924	35,488	35,844
ESTONIA	2,324	1,918	1,990	2,079	2,756	3,969	4,732	5,890	6,472	7,014	7,579	6,735
FINLAND	24,408	32,571	32,597	29,071	28,907	27,448	29,593	34,934	42,010	42,892	38,536	37,148
FRANCE	347,166	381,620	399,056	404,355	404,355	413,627	399,564	n/a	n/a	n/a	n/a	n/a
GERMANY	159,832	183,110	200,466	214,817	245,325	247,722	277,691	284,816	287,352	293,002	306,376	293,393
GREECE	54,545	53,099	32,999	19,773	11,680	7,739	6,425	6,342	7,016	8,707	10,684	13,291
HUNGARY	20,823	12,655	10,560	7,293	8,382	7,612	10,032	14,389	17,681	21,127	28,158	19,898
IRELAND	14,602	6,994	4,911	4,575	5,518	7,219	9,842	14,321	17,899	21,047	20,514	20,473
ITALY	131,184	123,499	133,900	118,600	103,600	86,200	81,600	n/a	n/a	n/a	n/a	n/a
LATVIA	1,918	2,662	2,087	2,201	2,630	2,240	2,197	2,271	2,966	3,315	3,101	2,853
LITHUANIA	3,667	3,733	3,198	3,467	4,456	5,707	7,051	6,420	6,434	6,510	6,814	6,596
LUXEMBOURG	2,824	2,162	2,304	2,642	3,357	3,091	3,856	n/a	n/a	n/a	n/a	n/a
NETHERLANDS	55,999	57,703	48,668	49,311	44,041	48,381	54,849	62,982	66,585	70,716	69,322	71,221
POLAND	135,818	131,148	152,904	145,388	143,235	147,821	163,394	178,342	185,170	207,224	221,401	234,916
PORTUGAL	35,442	26,069	19,302	12,430	7,794	6,611	7,256	8,636	12,308	14,366	17,260	18,867
ROMANIA	48,862	45,419	44,016	43,587	44,984	47,017	52,206	53,301	59,725	67,488	67,816	71,420
SLOVAKIA	17,076	14,608	15,255	15,100	14,985	15,471	15,672	16,946	19,071	20,171	21,490	20,649
SLOVENIA	6,355	5,468	4,307	3,484	3,163	2,776	2,975	3,044	3,037	3,415	3,540	4,032
SPAIN	240,920	157,405	114,991	64,817	46,822	45,152	40,119	54,610	64,354	78,789	85,945	91,390
SWEDEN	19,500	20,064	25,993	29,225	29,164	34,603	42,441	48,227	54,876	55,659	50,479	47,300
ICELAND	1,148	565	1,076	934	1,149	1,120	1,513	1,768	2,303	3,033	3,816	n/a
NORWAY	18,090	20,046	26,275	28,456	28,072	28,265	29,286	31,470	32,830	30,397	29,164	28,398
SWITZERLAND	43,632	47,174	43,134	50,166	49,162	53,126	52,034	50,209	53,199	48,040	49,577	n/a
UNITED KINGDOM	106,720	114,020	115,590	109,450	117,820	142,480	141,880	162,470	165,490	177,880	147,890	175,390
AUSTRALIA	146,896	143,104	141,705	150,591	174,166	197,253	213,644	213,181	219,533	202,989	181,475	179,833
CANADA	186,855	175,623	180,093	185,494	181,428	194,461	187,605	190,923	200,262	187,177	198,761	202,371
RUSSIA	717,000	786,000	838,000	929,000	1,124,000	1,195,000	1,167,000	1,139,000	1,075,741	1,120,333	1,121,601	1,204,647
SINGAPORE	10,399	12,469	10,329	13,150	19,941	18,971	20,803	16,449	9,112	7,527	4,061	6,388
SOUTH KOREA	n/a	338,813	365,053	395,519	431,339	460,153	514,775	569,209	636,494	518,084	471,079	431,394
TURKEY	429,755	556,769	556,331	726,339	777,596	732,948	754,174	833,517	894,240	738,816	600,098	627,029
USA	651,000	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

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

1) Time series breaks
- Denmark: 2012 (source was changed from 2012 onwards)
- Netherlands: 2012 (due to a change in methodology)

2) The series has been revised for at least two years in:
- Austria
- Ireland
- Lithuania
- United Kingdom
- Turkey
- Netherlands

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

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
AUSTRIA	0.6	2.9	-1.4	-0.2	-0.4	1.0	2.3	6.3	2.0	3.9	1.6	1.7
BELGIUM	2.8	-2.6	0.2	-2.8	5.7	1.0	2.9	0.8	2.6	4.7	-7.2	8.5
BULGARIA	-40.8	-14.2	-26.7	-4.0	-3.3	-10.3	102.1	19.2	-2.2	6.6	0.7	-11
CYPRUS	-14.4	-16.1	-19.0	-25.6	-7.9	-4.5	29.8	16.0	37.5	21.3	-5.9	-2.6
CZECHIA	10.3	-5.9	2.7	-7.7	10.2	15.6	5.3	10.6	5.2	2.0	3.8	-1.6
DENMARK	-8.9	15.8	-5.5	-7.8	6.8	5.3	4.7	11.1	4.8	6.3	9.1	9.9
ESTONIA	-9.4	9.7	10.5	15.4	19.6	7.5	16.5	11.1	-1.5	11.7	14.0	-7.7
FINLAND	25.6	5.9	-1.6	-5.5	-5.4	1.7	10.6	4.1	4.7	-4.2	-3.2	5.8
FRANCE	2.1	0.9	-2.2	-0.4	-1.9	-1.1	2.8	6.1	3.2	2.5	-12.2	14.8
GERMANY	4.3	10.0	3.3	-0.8	2.9	-0.7	5.0	0.9	3.0	1.5	3.4	0.7
GREECE	-26.2	-14.6	-37.9	-31.1	-53.3	-25.8	-11.5	-7.0	22.5	16.9	14.6	26.5
HUNGARY	-24.7	-27.4	-9.9	-6.0	11.0	16.8	9.7	16.0	11.3	7.0	21.5	-10.4
IRELAND	-32.9	-30.1	-24.3	5.8	15.1	6.5	21.1	21.7	20.4	-0.3	-7.5	2.2
ITALY	0.2	-6.6	-9.0	-5.4	-7.9	-2.4	0.1	1.1	1.1	-0.8	-7.4	25.9
LATVIA	-28.4	-1.8	25.8	-6.6	10.9	5.3	-17.7	-0.2	26.3	3.8	-1.9	-15.4
LITHUANIA	-29.7	1.0	2.3	11.5	16.9	14.9	6.8	-4.6	5.9	14.7	4.1	-1.4
LUXEMBOURG	-12.4	5.0	4.5	21.1	11.2	8.9	9.4	-8.8	3.3	8.3	-7.0	3.0
MALTA	-17.2	5.8	-23.9	-2.8	-0.2	33.7	26.6	36.4	20.3	0.1	-21.3	4.2
NETHERLANDS	-16.0	-3.6	-12.9	-12.2	6.1	20.1	21.7	12.3	9.3	3.4	-0.6	3.3
POLAND	-4.2	1.2	5.1	0.9	8.4	-11.5	-2.9	-2.6	-10.1	4.3	-0.3	11.5
PORTUGAL	-10.4	-11.7	-7.3	-14.2	-0.8	1.0	6.3	8.7	6.6	1.4	-6.6	8.9
ROMANIA	2.2	-10.2	5.1	-11.2	4.5	5.2	12.1	10.0	-24.9	23.7	6.6	5.6
SLOVAKIA	-12.2	4.7	4.8	12.0	-15.1	-1.6	24.3	0.0	9.4	2.9	9.7	3.4
SLOVENIA	-20.4	-12.4	-12.5	-7.6	-6.7	0.7	-0.8	5.3	1.9	8.4	-0.2	0.5
SPAIN	-13.0	-12.2	-5.3	-7.6	9.9	-3.2	8.9	13.4	13.0	6.6	-11.2	-5.3
SWEDEN	14.6	9.3	-13.9	4.0	18.2	15.8	9.8	7.1	-6.4	-6.5	1.6	10.3
EU 27	-2.6	-0.6	-3.5	-3.1	1.0	0.5	5.3	4.7	3.6	2.3	-3.3	6.6
EURO AREA 19	-2.6	-0.9	-3.3	-3.1	0.0	-0.2	5.1	4.4	4.5	2.3	-4.2	6.7
ICELAND	-18.0	5.4	7.2	10.5	15.1	-2.2	25.9	21.1	15.7	31.1	1.2	-4.4
NORWAY	-1.6	17.0	10.9	5.3	-1.4	3.2	6.6	7.3	-6.5	-1.1	-4.0	0.6
SWITZERLAND	6.5	4.5	2.1	3.3	1.7	1.7	1.8	1.2	-1.9	-3.4	-1.1	n/a
UNITED KINGDOM	5.5	1.6	-2.4	5.7	5.0	5.3	3.9	9.2	5.1	0.1	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	-3.2	-0.7	12.3	11.9	3.6	10.1	6.5	4.0	-0.5	-0.8	6.9	9.0

Sources: *Eurostat, OECD*

1) Time series breaks

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

- Austria
- Belgium
- Cyprus
- Denmark
- Estonia
- France
- Germany
- Greece
- Ireland
- Italy
- Latvia
- Lithuania
- Luxembourg
- Malta
- Romania
- Slovenia
- Spain
- EU 27
- Euro area 19
- Iceland
- Norway
- 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

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
AUSTRIA	4,396	4,441	4,474	4,519	4,562	4,608	4,656	4,707	4,758	4,821	4,875	4,938
BELGIUM	5,087	5,131	5,180	5,229	5,273	5,315	5,357	5,404	5,455	5,514	5,577	5,632
BULGARIA	3,804	3,900	3,909	3,918	3,928	3,935	3,944	3,951	3,959	3,971	3,985	n/a
CROATIA	n/a	1,924	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
CYPRUS	421	431	437	441	444	446	449	452	455	460	n/a	n/a
CZECHIA	4,671	4,700	4,729	4,754	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
DENMARK	2,770	2,786	2,797	2,812	2,827	2,844	2,861	2,878	2,901	2,919	2,941	2,749
ESTONIA	654	656	658	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
FINLAND	2,537	2,556	2,580	2,600	2,618	2,634	2,655	2,680	2,705	n/a	2,770	2,794
FRANCE	32,520	32,860	33,212	34,378	34,750	35,182	35,425	35,720	36,330	36,609	36,997	37,196
GERMANY	40,479	40,630	40,806	40,995	41,221	41,446	41,703	41,968	42,235	42,513	42,804	43,082
GREECE	6,372	6,425	6,458	6,478	6,489	6,497	6,504	6,510	6,517	6,526	6,536	6,550
HUNGARY	4,331	4,349	4,394	4,402	4,408	4,415	4,420	4,427	4,439	4,455	4,474	4,501
IRELAND	1,993	1,997	1,997	1,998	1,999	2,002	2,008	2,018	2,032	2,049	2,065	2,081
ITALY	30,580	31,791	31,576	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
LATVIA	n/a	1,019	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
LITHUANIA	1,341	1,283	1,289	1,298	1,403	1,413	1,428	1,445	1,451	1,501	1,517	1,534
LUXEMBOURG	n/a	223	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
MALTA	n/a	224	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
NETHERLANDS	7,218	7,266	7,386	7,449	7,535	7,588	7,641	7,741	7,815	7,892	7,968	8,044
POLAND	13,422	13,560	13,723	13,853	13,983	14,119	14,272	14,440	14,615	14,813	15,015	15,340
PORTUGAL	5,852	5,879	5,898	5,910	5,920	5,926	5,933	5,942	5,955	5,968	n/a	n/a
ROMANIA	8,428	8,722	8,761	8,800	8,841	8,882	8,929	8,977	9,031	9,093	9,156	n/a
SLOVAKIA	2,023	2,036	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
SLOVENIA	845	845	n/a	n/a	845	n/a	n/a	n/a	852	n/a	n/a	845
SPAIN	25,131	25,209	25,271	25,245	25,209	25,171	25,129	25,097	25,075	25,067	25,068	25,076
SWEDEN	4,508	4,524	4,551	4,634	4,669	4,717	4,796	4,859	4,925	4,978	5,037	5,096
ICELAND	130	131	131	132	132	134	135	138	140	144	146	151
NORWAY	2,343	2,369	2,399	2,427	2,456	2,485	2,516	2,548	2,582	2,610	2,638	2,667
SWITZERLAND	4,079,1	4,131,3	4,177,5	4,235	4,289	4,352	4,421	4,469	4,529	4,582	4,637	n/a
UNITED KINGDOM	26,696	26,855	27,008	27,151	27,306	27,498	27,713	27,954	28,203	28,472	28,740	28,793
AUSTRALIA	n/a	7,760	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
BRAZIL	57,324	62,117	63,768	65,130	67,039	68,037	68,899	69,471	71,015	72,395	n/a	n/a
JAPAN	n/a	n/a	n/a	60,629	n/a	n/a	n/a	n/a	62,407	n/a	n/a	n/a
RUSSIA	60,100	60,800	61,500	61,300	62,900	64,000	64,900	65,900	66,900	67,500	69,000	n/a
SINGAPORE	258	269	278	289	309	327	348	364	370	374	376	382
SOUTH KOREA		17,739	18,082	18,414	18,742	16,367	16,692	17,123	17,633	18,127	18,526	n/a
TURKEY	n/a	19,482	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
USA	131,776	132,168	132,600	133,199	133,946	134,764	135,660	136,570	138,489	139,641	140,803	141,947

Sources: *European Mortgage Federation National Experts, National Statistics Offices, Japanese Ministry of Internal Affairs and Communication, US Bureau of Census*

1) Time series breaks

- Denmark: 2007 (due to a change in methodology)
- Netherlands: 2012 (due to a change in methodology)
- Norway: 2006 (due to a change in methodology)

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

- Austria
- France
- Ireland
- Netherlands
- Slovenia
- Iceland
- United Kingdom
- Singapore
- South Korea

3) Notes

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

17. Number of Transactions

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
BELGIUM	128,094	128,621	124,358	124,356	135,180	103,514	119,063	123,848	130,323	149,661	122,492	143,250
CROATIA	2,319	2,169	2,357	1,997	2,410	1,672	2,791	2,429	2,880	3,458	3,458	n/a
CYPRUS	8,598	7,018	6,269	3,767	4,527	4,952	7,063	8,734	9,242	10,366	7,968	10,347
DENMARK	52,955	44,064	45,506	46,566	52,490	63,186	63,679	69,818	68,602	70,851	82,263	88,275
ESTONIA	23,747	23,327	26,760	30,141	31,093	33,081	33,410	51,780	59,303	59,188	60,180	71,732
FINLAND	70,689	69,099	71,645	63,440	58,520	61,954	61,334	62,654	60,800	63,298	70,794	76,281
FRANCE	1,040,300	1,092,500	938,900	899,860	869,614	1,005,713	1,104,576	1,228,301	1,215,920	1,323,727	1,240,546	1,434,826
GERMANY	525,000	571,000	576,000	565,000	562,000	577,000	575,000	567,000	575,000	608,000	599,000	600,000
GREECE	117,948	83,665	57,650	49,774	43,443	54,631	60,540	69,826	79,532	96,662	74,769	n/a
HUNGARY	112,212	110,024	105,700	104,129	127,592	154,212	160,975	165,782	172,846	154,940	145,300	168,000
IRELAND	28,618	26,818	31,802	34,662	47,238	56,178	55,153	61,180	63,168	67,152	58,600	68,021
ITALY	611,878	598,224	444,018	403,124	417,524	444,636	516,574	542,700	578,647	603,541	557,926	748,523
LATVIA	36,604	42,051	43,941	49,141	49,973	48,397	52,152	52,640	49,093	49,890	50,839	56,502
LUXEMBOURG	5,165	5,749	5,474	5,471	6,477	6,269	6,333	7,404	7,545	7,295	6,835	6,835
MALTA	n/a	n/a	n/a	n/a	n/a	n/a	6,502	n/a	n/a	n/a	n/a	n/a
NETHERLANDS	126,127	120,739	117,261	110,094	153,511	178,293	214,793	241,860	219,493	218,595	235,511	226,088
POLAND	76,698	86,897	116,555	124,685	130,656	160,789	173,467	188,596	211,597	213,763	204,709	n/a
PORTUGAL	106,987	76,928	62,585	66,058	69,839	90,509	107,490	129,834	151,209	154,865	137,513	165,682
ROMANIA	352,324	371,569	434,954	473,319	454,001	483,699	521,805	587,017	603,592	622,260	589,748	712,313
SLOVENIA	7,781	7,634	10,571	9,239	10,364	12,030	14,018	15,246	13,902	14,071	11,612	13,927
SPAIN	491,287	349,118	363,623	300,568	365,621	401,713	457,738	532,261	582,888	569,993	487,354	674,014
SWEDEN	152,072	144,946	143,675	151,582	159,536	168,298	160,200	164,735	158,233	163,784	173,602	184,465
ICELAND	4,039	5,970	6,749	7,459	8,314	10,247	11,164	10,546	11,169	10,904	12,749	14,231
NORWAY	100,177	110,844	113,276	109,437	112,147	119,681	121,578	114,382	118,196	119,950	125,302	128,113
UNITED KINGDOM	885,770	884,790	932,480	969,750	1,218,750	1,229,580	1,235,020	1,223,090	1,191,510	1,176,830	1,045,120	1,475,350
BRAZIL	858,37	946,633	921,879	996,72	991,933	891,035	768,283	632,762	697,978	730,268	825,565	1,233,120
JAPAN	164,600	166,800	154,900	169,467	155,900	154,200	158,100	147,500	159,867	n/a	n/a	n/a
RUSSIA	2,148,541	2,745,842	3,063,489	3,032,834	3,448,283	2,806,901	2,861,989	2,863,164	3,122,824	3,025,069	3,130,095	3,575,093
SINGAPORE	38,900	32,640	37,873	22,728	12,848	14,117	16,378	25,010	22,139	19,150	20,909	33,557
TURKEY	607,098	708,275	701,621	1,157,190	1,165,381	1,289,320	1,341,453	1,409,314	1,375,398	1,348,729	1,499,316	1,491,856
USA	4,513,000	4,566,000	5,090,000	5,519,000	5,377,000	5,751,000	6,011,000	6,123,000	5,957,000	6,830,000	6,462,000	6,891,000

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

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

2) The series has been revised for at least two years in:
- France
- Portugal
- Slovenia
- Sweden
- United Kingdom
- Brazil
- Singapore
- United States

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

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
AUSTRIA	76.8	81.6	87.6	92.1	95.3	100.0	108.5	114.3	119.6	123.7	132.4	148.0
BELGIUM	89.9	93.5	97.4	99.2	100.7	100.0	104.4	108.8	113.1	119.4	121.1	131.5
BULGARIA	105.8	100.0	98.1	95.9	97.3	100.0	107.0	116.3	122.7	128.5	129.7	135.6
CROATIA	110.5	110.7	108.9	104.6	103.0	100.0	100.9	104.8	111.1	121.1	130.4	139.9
CYPRUS	133.8	129.4	122.5	114.5	104.5	100.0	98.2	98.7	99.9	101.9	102.6	102.7
CZECHIA	93.7	93.2	92.4	92.5	96.1	100.0	111.0	120.3	132.1	143.9	156.8	197.3
DENMARK	99.5	95.9	91.6	92.3	93.8	100.0	103.7	108.4	112.8	116.0	121.0	135.2
ESTONIA	63.9	69.3	74.4	82.3	93.6	100.0	104.8	110.5	117.4	80.0	84.8	97.6
FINLAND	95.6	98.2	99.8	101.4	100.8	100.0	100.9	101.9	103.0	103.9	105.1	109.1
FRANCE	103.5	107.3	105.0	103.8	101.9	100.0	100.9	104.0	107.1	110.6	116.8	124.6
GERMANY	85.3	87.4	90.0	92.7	95.6	100.0	106.0	112.1	120.7	128.9	138.5	154.1
GREECE	152.8	144.4	127.6	113.7	105.3	100.0	97.5	96.6	98.3	105.4	109.9	118.0
HUNGARY	91.6	90.0	87.3	82.0	84.7	100.0	117.3	133.0	157.5	186.6	203.6	227.8
IRELAND	105.9	87.8	75.9	76.9	89.6	100.0	107.3	119.0	131.2	134.3	134.8	145.9
ITALY	118.1	119.7	116.7	109.1	104.0	100.0	100.3	99.2	98.6	98.5	100.4	103.0
LATVIA	80.9	85.6	90.8	98.2	93.8	100.0	107.8	116.2	129.2	139.9	145.8	162.1
LITHUANIA	84.2	89.8	89.6	90.7	96.5	100.0	105.4	114.8	123.2	131.6	141.2	163.8
LUXEMBOURG	80.1	83.1	86.6	90.9	94.9	100.0	106.0	112.0	119.9	132.0	151.1	172.1
MALTA	91.0	89.8	92.5	92.2	94.5	100.0	105.5	111.0	117.4	124.6	125.1	129.8
NETHERLANDS	113.0	110.2	103.1	96.3	97.2	100.0	105.0	112.9	123.1	131.6	141.9	163.4
POLAND	107.6	107.0	98.1	97.1	98.9	100.0	100.7	107.3	116.9	129.3	144.4	158.2
PORTUGAL	107.4	102.1	94.9	93.1	97.0	100.0	107.6	118.9	129.9	143.4	154.8	172.8
ROMANIA	119.5	104.8	99.5	99.3	97.2	100.0	106.0	112.4	118.6	122.7	128.0	137.5
SLOVAKIA	105.2	102.0	100.8	99.9	99.1	100.0	104.9	111.9	118.1	126.9	142.1	175.8
SLOVENIA	117.2	120.4	112.1	106.2	99.2	100.0	103.3	111.8	121.6	129.7	135.7	151.3
SPAIN	124.9	118.0	107.7	101.4	98.9	100.0	101.9	104.3	107.8	111.3	110.0	112.4
SWEDEN	82.0	82.6	81.7	84.5	90.4	100.0	108.4	117.4	117.4	120.5	128.6	150.3
EU 27 (simple average)	101.5	100.1	97.5	96.4	97.2	100.0	104.9	111.1	118.1	123.9	131.0	145.2
EURO AREA 19 (simple average)	101.6	101.0	98.7	97.6	98.0	100.0	104.0	109.4	115.7	119.9	126.0	138.8
ICELAND	72.0	75.4	80.6	85.2	92.4	100.0	109.8	131.2	142.0	148.3	157.8	177.6
NORWAY	76.1	82.4	88.7	88.0	95.6	100.0	112.5	111.2	114.3	117.3	127.6	134.2
SWITZERLAND	82.6	87.9	92.1	94.9	97.5	100.0	98.5	102.1	104.6	106.9	112.5	112.5
UNITED KINGDOM	86.1	84.8	85.2	87.4	94.4	100.0	107.0	111.9	115.4	116.5	120.1	131.0
AUSTRALIA	82.0	79.0	80.0	86.0	92.0	100.0	105.0	110.0	105.0	107.0	110.0	135.0
BRAZIL	69.6	80.9	89.0	96.8	101.6	100.0	97.4	95.4	95.6	98.3	105.4	114.9
JAPAN	99.9	99.4	98.3	99.9	99.5	100.0	101.1	101.7	102.6	102.3	101.8	107.2
RUSSIA	72.6	77.7	87.7	94.1	99.6	100.0	97.3	96.4	99.2	105.0	112.7	137.0
SINGAPORE	92.7	101.4	103.8	107.1	104.0	100.0	96.9	95.8	104.3	107.1	109.5	121.1
SOUTH KOREA	90.5	96.1	94.7	95.0	96.6	100.0	100.7	102.2	103.3	103.0	108.5	119.2
TURKEY	57.0	60.6	66.8	75.3	86.6	100.0	112.2	122.4	127.8	140.6	183.3	292.8
USA	85.1	81.6	84.0	90.1	94.8	100.0	105.6	112.2	119.1	125.2	135.0	157.7

Sources: *European Mortgage Federation, National Statistics Offices, OECD, ECB (for the euro area (19)), EUROSTAT (for the EU), Central Statistical Bureau of Latvia (LV), Federal Housing Finance Agency (US), Ministry of Land Infrastructure Transport and Tourism (JP)*

1) Time series breaks
- Croatia: 2005 (change of source)
- Czechia: 2008 (change in source)
- Iceland: 2005 (change of source)
- Portugal: 2005

2) The series has been revised for at least two years in:
- Poland
- Portugal
- Slovenia
- South Korea

3) Notes:
- For Hypostat 2022 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

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
AUSTRIA												
Vienna	68.8	74.6	86.4	93.8	97.8	100.0	103.8	105.4	110.9	116.3	124.1	137.5
Rest of the country	79.2	81.1	89.9	92.3	95.1	100.0	109.0	114.4	124.1	127.4	137.0	154.5
BELGIUM												
Brussels	88.0	93.4	97.5	101.5	97.2	100.0	103.0	104.3	106.9	112.7	121.9	126.4
BULGARIA												
Sofia	98.4	92.1	91.1	90.3	92.9	100.0	111.0	123.1	131.3	141.8	133.6	140.3
Varna	100.1	93.9	90.3	89.5	91.9	100.0	107.6	119.0	124.2	133.1	120.0	126.3
Plovdiv	104.1	98.1	94.3	91.7	90.8	100.0	105.6	115.9	123.2	135.0	132.0	136.9
CROATIA												
Zagreb	112.5	112.1	109.9	103.5	102.2	100.0	100.7	105.1	116.4	131.8	142.5	152.7
Adriatic Coast	109.4	110.7	108.7	105.5	103.4	100.0	101.3	105.7	111.4	119.1	126.6	137.0
Rest of the country	109.1	108.6	108.0	103.6	102.8	100.0	99.2	99.7	100.3	104.1	114.5	121.2
CYPRUS												
Nicosia	131.4	129.7	124.1	115.4	105.6	100.0	97.6	98.5	99.9	101.5	102.7	102.2
Limassol	129.6	123.6	118.9	113.2	104.1	100.0	99.1	101.3	104.8	109.8	111.7	115.5
Larnaca	144.7	138.1	126.9	115.7	104.9	100.0	98.8	98.0	99.6	102.4	104.7	106.3
CZECHIA												
Prague	92.9	91.3	93.3	95.2	96.0	100.0	110.7	119.6	131.6	n/a	n/a	n/a
DENMARK												
Copenhagen	80.6	80.3	77.9	83.6	90.4	100.0	106.0	113.1	122.8	125.5	134.1	160.8
Aarhus	91.7	90.4	90.1	91.6	92.7	100.0	102.9	105.5	110.7	113.1	119.4	133.1
Odense	97.5	93.6	90.8	92.9	95.0	100.0	104.6	107.0	113.4	118.2	120.9	133.4
FINLAND												
Helsinki	89.6	93.1	95.4	99.2	99.7	100.0	102.8	106.3	122.8	126.9	132.5	140.7
Tampere	92.6	95.0	96.7	98.1	99.1	100.0	101.1	103.0	120.5	122.9	126.7	133.5
Turku	91.1	92.6	94.2	96.1	99.2	100.0	100.9	104.3	104.4	109.5	112.3	118.9
FRANCE												
Paris	91.5	104.5	103.4	103.5	101.6	100.0	103.1	110.5	117.8	125.4	134.3	134.3
Marseille	113.8	116.2	111.6	107.7	103.7	100.0	97.7	101.5	103.8	108.1	113.2	121.2
Lyon	90.8	96.6	100.6	100.4	100.4	100.0	102.8	110.0	119.7	132.4	146.2	153.1
GERMANY												
Aggregate seven largest Germany cities	73.1	77.1	81.9	86.7	92.1	100.0	109.8	122.4	132.2	137.4	144.1	158.2
GREECE												
Athens	160.9	150.6	132.9	116.5	105.6	100.0	98.1	97.1	99.8	110.4	119.0	129.8
Thessaloniki	154.5	144.0	124.5	113.2	105.7	100.0	96.6	95.2	96.3	103.0	108.1	115.6

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
HUNGARY												
Budapest	84.5	83.6	80.2	73.1	78.5	100.0	123.7	142.5	174.6	213.1	220.3	233.8
Debrecen	87.2	85.9	89.2	79.0	84.0	100.0	117.9	134.6	161.9	202.5	211.4	244.9
Szeged	91.8	90.9	88.2	82.0	85.1	100.0	113.8	134.6	161.2	205.6	214.0	255.4
ITALY												
Rome	111.5	113.0	113.5	109.3	105.4	100.0	95.1	92.0	89.8	87.5	86.1	85.7
Milan	99.5	101.1	100.8	99.1	100.5	100.0	99.2	99.3	100.2	101.9	103.5	106.1
Naples	110.6	108.9	106.2	100.8	101.5	100.0	97.6	96.9	96.8	96.5	92.2	93.4
IRELAND												
Dublin	89.9	75.4	66.7	73.2	90.9	100.0	105.2	115.2	125.0	125.0	124.3	133.3
NETHERLANDS												
Amsterdam	97.3	97.0	91.5	86.7	91.1	100.0	113.6	129.5	146.0	154.3	162.1	180.2
The Hague	110.2	108.3	100.8	93.9	96.2	100.0	108.3	120.3	135.4	146.1	157.1	179.9
Rotterdam	105.8	105.0	99.8	94.3	95.8	100.0	107.1	121.0	138.6	149.9	162.6	185.3
POLAND												
Cracovia	108.4	106.6	97.8	97.1	99.8	100.0	100.5	106.2	114.6	127.1	140.5	151.2
Lodz	105.8	104.8	103.0	98.1	98.2	100.0	95.9	101.0	107.0	115.3	131.4	150.2
Warsaw	117.4	117.9	100.0	101.8	104.5	100.0	98.7	108.5	123.7	139.2	158.4	173.8
PORTUGAL												
Lisbon	105.2	110.1	99.2	95.7	96.4	100.0	103.3	114.8	126.6	132.8	144.7	n/a
ROMANIA												
Bucarest	130.9	104.7	106.8	96.9	96.7	100.0	107.5	116.4	121.6	125.6	126.6	138.0
SLOVAKIA												
Bratislava	102.0	99.1	98.1	98.0	97.3	100.0	105.7	112.0	116.5	124.1	137.8	168.6
Košice	99.5	103.1	102.7	98.1	97.3	100.0	98.5	107.3	113.3	109.3	140.1	203.4
Prešov	110.9	110.3	107.8	105.7	102.7	100.0	105.2	111.7	117.3	139.0	154.0	228.3
SLOVENIA												
Ljubljana	120.0	123.7	116.2	102.8	95.0	100.0	106.0	120.0	134.5	137.9	142.8	161.1
SPAIN												
Barcelona	121.9	111.7	100.2	97.5	97.1	100.0	104.5	110.3	119.7	126.6	125.4	129.0
Madrid	131.6	123.5	110.3	100.3	98.7	100.0	106.2	113.0	120.5	126.1	124.3	126.3
Valencia	132.5	123.3	108.8	102.0	99.5	100.0	102.6	101.7	105.2	110.3	109.9	114.7
SWEDEN												
Stockholm	75.6	76.6	76.3	79.4	87.7	100.0	108.7	114.9	108.7	109.3	116.2	137.8
Malmö	92.8	91.9	88.4	90.1	93.7	100.0	111.3	121.8	126.0	131.6	142.1	167.8
Göteborg	81.8	83.1	82.4	85.6	90.6	100.0	106.6	117.6	118.5	122.3	129.2	147.6

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
ICELAND												
Reykjavik	68.2	71.0	77.2	83.1	91.7	100.0	110.5	131.8	139.7	144.8	152.8	171.4
NORWAY												
Oslo	68.3	75.3	84.3	79.3	90.0	100.0	126.0	112.7	119.8	126.5	141.7	144.8
Bergen	75.6	81.8	88.3	88.9	98.8	100.0	101.0	101.0	102.9	105.7	114.7	122.2
Trondheim	73.1	81.6	89.6	91.3	97.3	100.0	104.6	107.0	106.2	107.5	115.7	125.7
UNITED KINGDOM												
London	66.9	68.3	71.5	77.4	90.8	100.0	110.0	113.0	112.4	110.8	113.8	118.4
AUSTRALIA												
Canberra	93.0	91.0	92.0	92.0	94.0	100.0	106.0	112.0	114.0	116.0	122.0	157.0
Sydney	67.0	65.0	68.0	78.0	88.0	100.0	110.0	115.0	106.0	110.0	114.0	144.0
Melbourne	84.0	79.0	79.0	87.0	91.0	100.0	111.0	122.0	114.0	119.0	122.0	147.0
BRAZIL												
São Paulo	n/a	n/a	n/a	n/a	96.0	100.0	98.9	97.8	98.9	102.3	117.0	126.7
Rio de Janeiro	n/a	n/a	n/a	n/a	98.2	100.0	97.5	93.7	91.2	90.9	93.9	94.7
Belo Horizonte	n/a	n/a	n/a	n/a	100.7	100.0	97.0	94.8	94.1	95.2	99.2	96.2
JAPAN												
Tokyo	98.2	96.7	94.5	96.8	96.0	100.0	102.8	104.4	106.7	105.9	105.8	112.6
Osaka	103.2	102.4	100.4	100.4	99.1	100.0	100.3	102.2	104.4	104.0	104.0	109.4
Aichi	101.4	99.7	97.7	98.2	97.6	100.0	102.6	103.2	103.5	105.5	106.1	110.5
RUSSIA												
Moscow	75.6	79.6	84.7	89.8	94.6	100.0	101.0	99.3	100.5	106.7	113.2	139.7
St. Petersburg	79.5	82.8	92.5	97.0	99.7	100.0	102.2	103.0	110.2	115.7	125.0	157.5
SOUTH KOREA												
Seul	100.0	100.7	95.9	94.5	95.6	100.0	102.1	105.9	112.4	113.8	116.9	124.4
Busan	84.6	98.1	95.8	95.6	96.7	100.0	103.2	105.6	104.0	102.7	108.7	120.5
TURKEY												
Ankara	45.4	49.3	55.0	66.1	81.2	100.0	112.8	117.8	118.9	133.7	174.0	271.2
Istanbul	61.9	65.4	72.8	80.9	88.8	100.0	109.1	116.7	118.4	120.2	153.7	250.9
Izmir	57.1	62.4	67.6	77.0	87.1	100.0	116.1	137.8	145.9	160.9	208.3	330.2
USA												
Washington - DC	68.6	70.7	76.3	85.4	94.5	100.0	103.6	107.7	112.0	116.1	125.6	140.3
New York	95.4	92.9	93.0	95.1	97.2	100.0	103.9	109.5	114.8	117.8	124.1	139.1
Los Angeles	78.3	74.3	75.9	85.9	93.0	100.0	107.2	116.1	123.3	128.3	139.2	162.8

Sources: *European Mortgage Federation National Experts, National Central Banks, National Statistics Offices, Federal Housing Finance Agency (US), Ministry of Land Infrastructure Transport and Tourism (JP)*

1) Time series breaks:
none

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

- Bulgaria
- Greece
- Italy
- Poland
- Slovenia
- United Kingdom
- Australia
- Russia
- South Korea

3) Notes:

- For Hypostat 2022 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

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
AUSTRIA	6.2	6.3	7.3	5.2	3.5	4.9	8.5	5.3	4.7	3.4	7.0	11.8
BELGIUM	3.9	4.0	4.1	1.9	1.5	-0.7	4.4	4.2	3.9	5.6	1.4	8.6
BULGARIA	-10.2	-5.5	-1.9	-2.2	1.4	2.8	7.0	8.7	5.5	4.8	0.9	4.5
CROATIA	-6.3	0.2	-1.6	-3.9	-1.6	-2.9	0.9	3.8	6.1	9.0	7.7	7.3
CYPRUS	-1.1	-3.3	-5.3	-6.5	-8.8	-4.3	-1.8	0.5	1.2	2.0	0.7	0.0
CZECHIA	0.3	-0.6	-0.8	0.1	3.8	4.1	11.0	8.4	9.8	8.9	9.0	25.8
DENMARK	2.8	-3.6	-4.5	0.8	1.5	6.7	3.7	4.5	4.1	2.8	4.3	11.7
ESTONIA	5.7	8.5	7.3	10.7	13.7	6.9	4.8	5.4	6.2	-31.8	6.0	15.1
FINLAND	8.8	2.7	1.6	1.6	-0.6	-0.8	0.9	1.1	1.0	0.9	1.2	3.8
FRANCE	7.6	3.7	-2.1	-1.2	-1.8	-1.9	0.9	3.0	3.0	3.2	5.6	6.7
GERMANY	0.6	2.4	3.0	3.0	3.1	4.6	6.0	5.8	7.7	6.8	7.4	11.3
GREECE	-4.6	-5.5	-11.7	-10.9	-7.5	-5.0	-2.4	-1.0	1.8	7.2	4.5	7.4
HUNGARY	-5.2	-1.8	-3.0	-6.1	3.3	18.1	17.3	13.4	18.5	18.4	9.1	11.9
IRELAND	-13.4	-17.1	-13.5	1.3	16.5	11.6	7.3	10.9	10.2	2.4	0.4	8.2
ITALY	1.8	1.4	-2.5	-6.5	-4.7	-3.8	0.3	-1.1	-0.6	-0.1	1.9	2.6
LATVIA	-2.4	5.8	6.1	8.2	-4.5	6.6	7.8	7.9	11.2	8.2	4.2	11.2
LITHUANIA	-7.4	6.6	-0.2	1.2	6.4	3.7	5.4	8.9	7.3	6.8	7.3	16.1
LUXEMBOURG	5.4	3.7	4.2	5.0	4.4	5.4	6.0	5.6	7.1	10.1	14.5	13.9
MALTA	1.1	-1.4	3.1	-0.4	2.6	5.8	5.5	5.3	5.8	6.1	0.4	3.7
NETHERLANDS	-2.2	-2.4	-6.5	-6.6	0.9	2.9	5.0	7.5	9.0	6.9	7.9	15.2
POLAND	-2.3	-0.6	-8.3	-1.0	1.8	1.1	0.7	6.6	8.9	10.6	11.7	9.6
PORTUGAL	0.8	-4.9	-7.1	-1.9	4.2	3.1	7.6	10.5	9.3	10.4	8.0	11.6
ROMANIA	-7.5	-12.3	-5.1	-0.3	-2.1	2.9	6.0	6.0	5.6	3.4	4.3	7.5
SLOVAKIA	-4.0	-3.1	-1.2	-0.9	-0.8	0.9	4.9	6.7	5.5	7.5	11.9	23.7
SLOVENIA	0.1	2.7	-6.9	-5.2	-6.6	0.8	3.3	8.3	8.7	6.7	4.6	11.5
SPAIN	-3.9	-5.6	-8.7	-5.8	-2.4	1.1	1.9	2.4	3.4	3.2	-1.1	2.1
SWEDEN	7.3	0.8	-1.1	3.4	7.0	10.7	8.4	8.3	0.0	2.6	6.7	16.9
ICELAND	-3.0	4.6	6.9	5.8	8.4	8.2	9.8	19.5	8.2	4.4	6.4	12.5
NORWAY	7.1	8.2	7.6	-0.7	8.7	4.6	12.5	-1.1	2.8	2.6	5.7	5.1
UNITED KINGDOM	5.7	-1.5	0.4	2.6	8.0	6.0	7.0	4.6	3.1	1.0	5.1	10.2
SWITZERLAND	2.8	6.4	4.8	3.0	2.7	2.6	-1.5	3.6	2.5	2.2	5.3	9.1
AUSTRALIA	11.7	-2.2	-0.3	6.6	9.1	9.0	6.0	7.5	-0.9	-4.4	5.6	n/a
BRAZIL	23.4	16.3	10.1	8.7	5.0	-1.6	-2.6	-2.1	0.2	2.9	7.1	9.0
JAPAN	1.0	-0.5	-1.2	1.6	-0.3	0.5	1.1	0.6	0.9	-0.3	-0.5	5.2
RUSSIA	-1.6	7.0	12.9	7.3	5.9	0.4	-2.7	-1.0	3.0	5.9	7.3	21.6
SINGAPORE	32.9	9.5	2.3	3.2	-2.9	-3.9	-3.1	-1.1	8.9	2.7	n/a	10.6
SOUTH KOREA	1.5	6.1	-1.4	0.3	1.7	3.5	0.7	1.5	1.1	-0.4	n/a	9.9
TURKEY	n/a	6.5	10.1	12.7	15.0	15.5	12.2	9.1	4.5	10.0	30.4	59.7
USA	-3.0	-4.1	3.0	7.2	5.2	5.5	5.6	6.2	6.2	5.1	7.9	16.8

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

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
AUSTRIA	85.6	88.6	91.4	95.9	96.6	100.0	104.3	106.1	107.6	107.6	115.7	128.4
BELGIUM	99.3	100.2	101.4	101.9	102.2	100.0	101.4	101.7	102.4	103.6	103.8	108.9
BULGARIA	120.8	106.6	104.2	100.3	101.0	100.0	102.2	103.8	n/a	n/a	n/a	n/a
CROATIA	107.0	108.0	110.1	105.8	106.8	100.0	97.7	96.5	96.6	100.9	n/a	n/a
CYPRUS	117.9	111.5	108.7	107.3	104.5	100.0	92.7	88.2	83.6	78.6	81.8	79.7
CZECHIA	95.3	91.5	91.5	94.4	100.4	100.0	106.2	104.8	105.1	107.5	114.6	130.0
DENMARK	113.0	105.3	98.4	97.6	97.7	100.0	99.1	100.3	101.5	101.2	105.1	111.7
ESTONIA	86.4	86.7	90.0	91.9	98.7	100.0	99.6	96.3	93.7	59.8	62.5	68.0
FINLAND	107.9	106.5	105.2	104.2	102.5	100.0	99.0	97.6	95.4	93.3	93.4	95.9
FRANCE	108.9	110.7	107.3	106.4	103.1	100.0	99.1	99.6	99.5	99.4	103.9	106.7
GERMANY	96.9	95.9	96.5	97.8	98.3	100.0	102.5	104.8	108.4	113.1	120.4	131.0
GREECE	114.4	120.0	118.9	113.6	105.0	100.0	98.9	98.1	98.9	102.0	109.6	109.7
HUNGARY	99.9	92.9	91.5	85.2	87.8	100.0	111.9	115.0	125.7	138.4	158.8	159.2
IRELAND	108.5	96.1	80.6	81.9	93.5	100.0	102.3	106.2	112.2	108.7	101.0	104.6
ITALY	120.6	119.1	119.4	111.1	105.3	100.0	99.0	96.0	93.7	93.0	97.4	96.4
LATVIA	102.6	107.7	105.4	109.9	99.1	100.0	102.3	104.5	108.4	111.7	113.5	118.2
LITHUANIA	100.7	102.6	98.0	94.7	99.5	100.0	98.2	102.4	103.5	101.4	100.2	109.2
LUXEMBOURG	98.7	97.0	96.6	95.6	96.3	100.0	103.0	101.9	104.8	109.7	118.8	133.7
NETHERLANDS	122.8	117.2	108.6	100.5	99.0	100.0	102.1	107.3	111.4	114.0	119.1	103.0
POLAND	121.7	118.4	105.9	103.4	102.0	100.0	99.8	98.7	102.5	106.2	114.9	125.3
PORTUGAL	104.6	101.5	97.0	96.0	100.4	100.0	103.7	111.1	116.3	122.8	133.7	131.4
ROMANIA	136.7	121.4	118.7	107.2	104.3	100.0	96.6	90.1	88.2	83.1	83.1	105.7
SLOVAKIA	117.6	113.2	109.0	107.5	104.2	100.0	101.7	103.3	99.6	101.9	111.7	106.0
SLOVENIA	120.3	120.9	115.5	109.4	100.9	100.0	99.1	102.3	104.8	105.3	106.1	129.4
SPAIN	123.5	115.9	111.6	105.4	102.8	100.0	99.2	98.4	98.9	97.2	101.1	136.0
SWEDEN	100.8	91.7	83.5	83.7	91.3	100.0	105.0	111.4	113.2	114.8	120.1	96.1
NORWAY	90.8	90.6	88.6	86.5	96.1	100.0	114.8	109.4	111.9	112.7	128.5	120.7
UNITED KINGDOM	108.9	117.1	112.8	112.8	112.7	100.0	125.0	128.7	127.4	126.3	138.2	135.2
SWITZERLAND	112.9	106.6	107.8	110.8	110.9	100.0	99.3	104.7	109.7	106.0	104.3	106.9
JAPAN	87.3	83.6	76.2	97.9	105.3	100.0	89.7	94.2	96.9	89.1	84.9	98.8
UNITED STATES	85.1	81.6	84.0	90.1	94.8	100.0	105.6	112.2	119.1	125.2	135.0	157.7

1) Time series breaks

- See Table 18

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

3) Notes

- Since Hypostat 2022 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

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
AUSTRIA	7,645	17,174	17,010	18,854	22,450	27,345	30,894	31,915	42,001	49,124	59,601	71,142
BELGIUM	-	-	2,590	8,188	10,575	15,105	16,700	15,250	20,092	23,637	41,062	41,462
CYPRUS	-	5,200	4,550	1,000	1,000	650	650	650	650	650	650	650
CZECHIA	8,234	8,546	9,056	10,355	11,106	11,656	13,060	15,522	13,757	14,168	18,185	22,548
DENMARK	332,505	345,529	359,560	359,646	369,978	377,903	389,200	393,447	396,246	402,432	419,031	433,812
ESTONIA	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	850	850
FINLAND	10,125	18,839	26,684	29,783	32,031	33,974	33,822	34,625	37,257	37,774	43,855	47,119
FRANCE	156,239	189,395	208,297	202,822	188,925	188,669	177,813	185,820	194,227	209,294	221,821	226,893
GERMANY	219,947	223,676	215,999	199,900	189,936	197,726	207,338	215,199	233,372	239,570	246,311	264,016
GREECE	19,750	19,750	18,046	16,546	14,546	4,961	4,485	10,100	13,840	13,190	10,890	10,840
HUNGARY	6,323	5,175	4,958	4,016	3,272	3,022	2,189	2,641	3,762	3,868	4,526	4,483
IRELAND	29,037	30,007	25,099	20,827	18,473	16,916	17,062	16,416	20,788	19,337	16,816	14,433
ITALY	26,925	50,768	116,405	122,099	122,464	122,135	138,977	139,937	163,311	172,728	171,102	168,099
LATVIA	63	37	-	-	-	-	-	-	-	-	-	-
LUXEMBOURG	-	-	-	-	-	-	-	-	-	-	-	-
NETHERLANDS	40,180	51,970	59,822	61,015	58,850	61,101	67,604	72,880	94,797	118,969	154,505	172,181
POLAND	511	527	657	707	882	1,230	2,216	3,959	4,925	6,111	5,776	5,000
PORTUGAL	27,690	33,248	34,321	36,016	33,711	34,461	32,970	35,530	35,795	36,600	38,350	38,150
ROMANIA	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	200	200
SLOVAKIA	3,442	3,768	3,835	4,067	3,939	4,198	4,197	5,118	4,858	6,658	7,337	8,851
SPAIN	343,401	369,208	406,736	334,572	282,568	252,383	232,456	216,498	213,253	220,767	231,143	216,808
SWEDEN	188,750	208,894	220,374	217,854	209,842	221,990	222,444	219,212	217,979	235,111	247,713	242,018
ICELAND	807	808	893	803	927	1,205	1,902	2,506	3,123	3,071	3,330	4,270
NORWAY	70,401	91,852	107,242	105,202	102,704	107,694	113,051	113,359	119,398	123,023	131,713	130,030
SWITZERLAND	65,046	71,881	85,707	89,064	100,436	111,542	117,564	111,632	119,422	128,248	140,617	152,825
UNITED KINGDOM (regulated)	125,250	121,623	147,425	114,395	114,654	106,674	97,127	89,509	93,530	108,857	96,012	88,710
UNITED KINGDOM (non regulated)	77,965	63,429	37,818	18,077	16,143	8,236	-	-	-	-	1,112	2,380
AUSTRALIA	-	2,478	35,962	51,831	64,741	69,312	70,796	64,001	65,855	64,630	62,592	57,864
BRAZIL	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	454	2,487	3,199	7,609
CANADA	18,003	38,610	49,121	50,459	64,836	85,759	100,830	93,095	107,496	113,016	168,195	138,436
JAPAN	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	1,000	3,585	5,322	6,174
SINGAPORE	n/a	n/a	n/a	n/a	n/a	919	1,963	5,576	8,466	8,990	8,815	11,087
SOUTH KOREA	1,120	2,171	2,407	2,536	1,349	1,954	2,490	2,619	2,771	6,183	7,928	9,966
TURKEY	n/a	n/a	n/a	n/a	n/a	128	628	1,923	2,334	1,967	1,755	895
USA	11,497	9,546	6,000	6,000	4,000	4,000	2,000	-	-	-	-	-

Source: *European Covered Bond Council*

1) Time series breaks

2) The series has been revised for at least two years in:
- 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 EUR was performed by the ECBC

23. Total Covered Bonds Issuances

Backed by Mortgages, EUR million

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
AUSTRIA	3,600	3,664	3,805	6,093	7,111	5,457	7,181	3,165	11,007	11,228	20,587	15,553
BELGIUM	-	-	2,590	5,598	2,387	4,530	2,345	1,050	5,842	5,000	19,250	2,500
CYPRUS	-	5,200	-	-	-	-	-	-	-	-	-	-
CZECHIA	723	770	1,309	1,791	2,188	2,729	1,693	4,074	2,573	1,516	6,412	10,415
DENMARK	148,475	145,147	185,845	149,989	154,310	163,050	130,329	123,205	113,441	165,208	124,013	121,724
ESTONIA	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	850	-
FINLAND	5,250	9,964	9,368	3,771	6,469	7,425	4,679	5,550	5,650	6,650	11,199	8,587
FRANCE	51,525	88,776	53,310	21,386	17,558	33,903	19,482	28,347	27,108	37,050	39,770	29,865
GERMANY	42,216	40,911	38,540	33,583	29,145	40,369	35,070	36,841	43,142	41,973	40,248	45,812
GREECE	17,250	5,000	-	-	750	-	3,675	7,375	6,650	200	-	600
HUNGARY	542	2,264	1,140	559	91	888	625	1,166	2,004	487	1,555	541
IRELAND	6,000	9,290	5,500	3,235	2,535	5,225	3,542	3,250	5,575	-	2,000	-
ITALY	12,925	29,261	70,768	24,520	39,475	27,650	41,780	19,180	45,200	27,000	26,100	22,500
LATVIA	-	-	-	-	-	-	-	-	-	-	-	-
LUXEMBOURG	-	-	-	-	-	-	-	-	-	-	-	-
NETHERLANDS	13,660	14,143	10,738	4,478	3,910	7,908	9,908	11,925	28,714	28,388	44,013	36,705
POLAND	138	269	228	116	269	416	1,099	2,048	1,244	1,284	22	454
PORTUGAL	11,570	8,450	4,850	4,500	3,825	8,675	5,950	8,200	2,350	4,800	1,500	-
ROMANIA	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	200	-	-
SLOVAKIA	1,179	867	785	841	654	1,159	751	1,316	800	2,250	1,500	2,000
SPAIN	51,916	72,077	98,846	22,919	23,038	31,375	31,393	30,000	19,935	19,435	14,560	12,720
SWEDEN	79,910	69,800	48,936	51,633	48,424	60,729	52,187	48,525	54,199	53,258	53,222	57,240
ICELAND	-	25	113	51	91	414	560	850	755	788	646	988
NORWAY	21,062	28,135	22,946	18,339	14,474	17,750	23,058	21,256	24,331	20,766	29,686	20,466
SWITZERLAND	14,834	15,379	19,723	13,583	19,193	15,840	16,106	12,922	13,725	15,360	20,508	19,297
UNITED KINGDOM (regulated)	25,000	36,983	37,109	1,480	12,529	15,015	9,599	11,563	14,916	22,959	9,089	9,783
UNITED KINGDOM (non regulated)	900	-	-	-	-	-	-	-	-	-	1,112	1,190
AUSTRALIA	-	2,478	33,484	15,868	13,253	10,004	11,382	7,351	11,075	9,511	4,594	6,825
BRAZIL	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	454	2,040	2,473	4,366
CANADA	12,648	19,977	12,937	9,354	19,275	29,287	28,148	12,441	24,384	23,647	79,834	31,820
JAPAN	n/a	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	n/a	919	1,014	3,753	3,762	914	1,000	3,702
SOUTH KOREA	347	1,051	178	466	-	919	949	417	587	3,369	2,921	2,847
TURKEY	n/a	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 EUR was performed by the ECBC

24. Total Covered Bonds Outstanding

As a Percentage of GDP, Backed by Mortgages, %

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
AUSTRIA	2.6	5.5	5.3	5.8	6.7	7.9	8.6	8.6	10.9	12.4	15.7	17.7
BELGIUM	0.0	0.0	0.7	2.1	2.6	3.6	3.9	3.4	4.4	4.9	9.0	8.2
CYPRUS	0.0	26.3	23.4	5.6	5.7	3.6	3.4	3.2	3.0	2.8	3.0	2.8
CZECHIA	5.2	5.2	5.6	6.5	7.0	6.9	7.4	8.0	6.5	6.3	8.4	9.5
DENMARK	136.7	139.4	141.2	139.0	139.2	138.4	137.5	133.5	131.1	130.0	134.4	128.8
FINLAND	5.4	9.5	13.3	14.6	15.5	16.1	15.5	15.3	16.0	15.7	18.4	18.7
FRANCE	7.8	9.2	10.0	9.6	8.8	8.6	8.0	8.1	8.2	8.6	9.6	9.1
GERMANY	8.6	8.3	7.9	7.1	6.5	6.5	6.6	6.6	6.9	6.9	7.3	7.4
GREECE	8.8	9.7	9.6	9.2	8.2	2.8	2.6	5.7	7.7	7.2	6.6	5.9
HUNGARY	6.3	5.1	4.9	3.9	3.1	2.7	1.9	2.1	2.8	2.6	3.3	2.9
IRELAND	17.3	17.5	14.3	11.6	9.5	6.4	6.3	5.5	6.4	5.4	4.5	3.4
ITALY	1.7	3.1	7.2	7.6	7.5	7.4	8.2	8.1	9.2	9.6	10.3	9.5
LATVIA	0.4	0.2	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	6.3	8.0	9.2	9.2	8.8	8.9	9.5	9.9	12.2	14.6	19.4	20.1
POLAND	0.1	0.1	0.2	0.2	0.2	0.3	0.5	0.8	1.0	1.1	1.1	0.9
PORTUGAL	15.4	18.9	20.4	21.1	19.5	19.2	17.7	18.1	17.4	17.1	19.2	18.1
ROMANIA	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.0	0.0
SLOVAKIA	5.0	5.3	5.2	5.5	5.2	5.3	5.2	6.1	5.4	7.1	8.0	9.1
SPAIN	57.6	57.0	58.0	44.6	35.2	29.4	25.1	21.6	19.8	17.7	20.6	18.0
SWEDEN	50.4	50.6	51.2	49.3	47.8	48.7	47.7	45.7	46.3	49.3	51.5	45.0
ICELAND	7.8	7.4	7.8	6.6	6.9	7.6	10.1	11.4	14.0	13.9	17.6	19.8
NORWAY	21.7	25.6	27.0	26.7	27.3	31.0	33.9	32.1	32.2	34.0	41.4	31.9
SWITZERLAND	14.3	13.8	15.9	16.6	18.1	17.6	18.7	17.9	19.2	19.6	21.3	22.2
UNITED KINGDOM (regulated)	6.7	6.3	7.0	5.4	4.9	4.0	3.9	3.7	3.8	4.2	4.0	3.3
UNITED KINGDOM (non regulated)	4.1	3.3	1.8	0.9	0.7	0.3	0.0	0.0	0.0	0.0	0.0	0.1
AUSTRALIA	0.0	0.2	3.0	4.4	5.9	5.7	6.5	5.4	5.4	5.2	5.4	4.4
BRAZIL	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.0	0.1	0.3	0.6
CANADA	1.5	3.0	3.5	3.6	4.8	6.1	7.3	6.4	7.4	7.3	11.7	8.2
JAPAN	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.0	0.1	0.1	0.1
SINGAPORE	n/a	n/a	n/a	n/a	n/a	0.3	0.7	1.8	2.7	2.7	2.9	3.3
SOUTH KOREA	0.1	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.4	0.6	0.7
TURKEY	n/a	n/a	n/a	n/a	n/a	n/a	0.1	0.3	0.4	0.3	0.3	0.1
USA	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Sources: *European Covered Bond Council, Eurostat*

1) Time series breaks

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

- all countries

3) Notes

- For further details on the methodologies, please see "Annex: Explanatory Note on data"
- n/a: figure not available
- - : no active covered bond market
- For a detailed defintion of covered bonds, please see the glossary
- Please note that the conversion to EUR was performed by the ECBC
- See Tables 22 and 27 for further notes

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

EUR million

	2014	2015	2016	2017	2018	2019	2020	2021
AUSTRIA	1,702	1,576	1,438	1,292	1,142	1,142	n/a	n/a
BELGIUM	55,813	47,729	44,817	45,070	38,575	30,743	25,014	23,221
FINLAND	-	-	-	-	-	-	-	-
FRANCE	50,147	59,336	63,008	78,996	83,279	97,215	81,311	86,167
GERMANY	20,158	26,563	26,016	28,141	29,296	5,075	2,815	11,768
GREECE	3,658	2,600	1,315	1,208	1,093	385	321	284
IRELAND	36,159	31,532	30,282	27,895	26,961	21,987	23,181	28,813
ITALY	80,685	69,473	60,816	60,435	60,094	59,645	47,987	42,857
NETHERLANDS	239,768	209,590	192,470	164,846	167,214	159,005	150,368	132,188
PORTUGAL	26,051	22,736	19,237	17,369	16,755	12,168	12,634	11,481
SPAIN	122,570	118,604	126,112	126,644	112,336	104,652	113,477	108,858
SWEDEN	302	499	611	-	-	-	-	-
UNITED KINGDOM	217,984	160,668	146,197	142,546	152,819	175,973	144,370	139,783
RUSSIA	505	380	1,004	1,868	3,083	2,842	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 EUR was performed by AFME

26. Total RMBS Issuances

EUR million

	2014	2015	2016	2017	2018	2019	2020	2021
BELGIUM	-	1,216	3,636	6,680	-	6,960	59	-
FRANCE	47,216	11,362	10,360	28,212	13,640	21,810	12,150	12,352
GERMANY	40	20,487	-	2,500	-	-	-	9,000
GREECE	-	-	-	-	-	-	-	
IRELAND	2,072	206	4,377	4,215	13,568	5,010	5,485	15,314
ITALY	4,756	6,589	6,760	12,880	11,940	13,586	578	8,277
NETHERLANDS	14,231	19,359	32,380	14,850	30,415	10,328	7,997	7,499
PORTUGAL	-	1,192	-	-	2,266	-	1,647	125
SPAIN	17,321	9,566	20,337	15,347	683	2,884	20,336	9,033
SWEDEN	-	358	214	313	-	-	-	-
UNITED KINGDOM	25,201	30,701	41,820	33,131	39,277	39,816	-	36,751

***Source:** Association for Financial Markets in Europe (AFME)*

1) Time series breaks
*All countries: 2007

2) The series has been revised for at least two years in:
none

3) Notes
- For further details on the methodologies, please see "Annex: Explanatory Note on data"
- n/a: figure not available
- Please note that the conversion to EUR was performed by AFME

D — MACROECONOMIC INDICATORS

27. GDP at Current Market Prices

EUR million

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
AUSTRIA	295,897	310,129	318,653	323,910	333,146	344,269	357,608	369,362	385,424	397,519	379,321	402,711
BELGIUM	363,140	375,968	386,175	392,880	403,003	416,701	430,085	445,050	460,092	478,239	456,732	506,205
BULGARIA	38,285	41,479	42,257	42,050	43,026	45,812	48,773	52,531	56,225	61,558	61,331	67,872
CROATIA	45,578	45,379	44,484	44,329	43,919	45,186	47,246	49,889	52,689	55,571	50,189	57,200
CYPRUS	19,410	19,803	19,441	17,995	17,409	17,884	18,929	20,245	21,613	23,010	21,618	23,437
CZECHIA	157,921	165,202	162,588	159,462	157,821	169,558	177,439	194,133	210,971	225,614	215,805	238,238
DENMARK	243,165	247,880	254,578	258,743	265,757	273,018	283,110	294,808	302,329	309,526	311,760	336,719
ESTONIA	14,741	16,677	17,917	18,911	20,048	20,631	21,748	23,834	25,818	27,732	26,835	30,660
FINLAND	188,143	197,998	201,037	204,321	206,897	211,385	217,518	226,301	233,462	239,858	237,987	251,431
FRANCE	1,995,289	2,058,369	2,088,804	2,117,189	2,149,765	2,198,432	2,234,129	2,297,242	2,363,306	2,437,635	2,310,469	2,500,870
GERMANY	2,564,400	2,693,560	2,745,310	2,811,350	2,927,430	3,026,180	3,134,740	3,267,160	3,367,860	3,473,350	3,367,560	3,570,620
GREECE	224,124	203,308	188,381	179,884	177,236	176,369	174,494	176,903	179,558	183,250	165,326	182,830
HUNGARY	99,814	102,194	100,281	102,276	106,298	112,824	116,279	127,046	136,073	146,113	137,442	154,124
IRELAND	167,391	171,683	175,513	179,411	194,934	262,800	270,058	296,925	326,043	356,526	372,869	421,529
ITALY	1,611,279	1,648,756	1,624,359	1,612,751	1,627,406	1,655,355	1,695,787	1,736,593	1,771,391	1,796,634	1,656,961	1,775,436
LATVIA	17,938	19,666	22,098	22,791	23,626	24,572	25,371	26,984	29,154	30,647	29,457	32,867
LITHUANIA	28,034	31,317	33,410	35,040	36,581	37,346	38,890	42,276	45,515	48,860	49,507	55,383
LUXEMBOURG	42,403	44,324	46,526	49,095	51,791	54,142	56,208	58,169	60,362	62,704	64,221	73,314
MALTA	6,816	6,925	7,365	7,944	8,751	9,997	10,541	11,941	12,955	14,047	13,066	14,685
NETHERLANDS	639,187	650,359	652,966	660,463	671,560	690,008	708,337	738,146	773,987	813,055	796,530	856,356
POLAND	362,191	379,860	387,947	392,311	408,968	430,466	427,092	467,427	497,842	533,600	526,445	574,385
PORTUGAL	179,611	176,096	168,296	170,492	173,054	179,713	186,490	195,947	205,184	214,375	200,088	211,280
ROMANIA	125,472	131,842	132,711	143,690	150,709	160,150	170,063	187,773	204,497	223,163	218,863	240,154
SLOVAKIA	68,492	71,477	73,361	74,217	76,093	79,888	81,014	84,443	89,430	94,048	92,079	97,123
SLOVENIA	21,228	21,867	23,249	24,972	26,248	27,692	29,122	31,476	35,074	48,397	46,918	52,020
SPAIN	595,723	647,851	700,993	749,552	802,266	859,437	927,357	1,003,823	1,075,539	1,244,375	1,121,948	1,205,063
SWEDEN	374,695	412,845	430,037	441,851	438,834	455,495	466,267	480,026	470,673	476,870	480,556	537,830
EURO AREA 19	9,043,245	9,366,133	9,493,851	9,653,170	9,927,243	10,292,802	10,618,427	11,052,821	11,461,765	11,984,261	11,409,490	12,263,819
EU 27	10,490,366	10,892,812	11,048,734	11,237,881	11,542,574	11,985,310	12,354,696	12,906,453	13,393,063	14,016,275	13,411,881	14,470,341
ICELAND	10,383,4	10,934,3	11,479,9	12,132,9	13,472,6	15,795,3	18,804,2	21,917,7	22,241,1	22,167	18,943	21,532
NORWAY	323,760,9	358,339,5	396,523,5	393,408,7	375,947,3	347,632,1	333,471,3	353,316,4	370,294,3	361,735	318,051	407,533
SWITZERLAND	455,934	520,201	538,439	536,633	553,942	632,771	628,730	623,994	622,746	653,733	659,731	687,110
UNITED KINGDOM	1,879,090	1,921,617	2,116,406	2,110,753	2,323,798	2,664,780	2,459,890	2,389,145	2,456,216	2,571,393	2,413,676	2,694,563
AUSTRALIA	865,648	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
BRAZIL	1,666,167	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
CANADA	1,219,992	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
JAPAN	4,344,174	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
RUSSIA	1,150,273	1,469,774	1,718,786	1,726,130	1,550,050	1,228,915	1,153,480	1,393,467	1,403,327	1,512,384	1,303,031	1,501,480
SINGAPORE	180,893	200,683	229,676	231,591	236,997	277,606	288,041	303,792	319,219	335,393	302,308	335,662
SOUTH KOREA	862,991	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
TURKEY	584,856	600,961	683,587	719,727	707,001	777,042	785,619	760,497	658,544	679,132	626,576	685,765
USA	11,351,712	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

Sources: *Eurostat, World Bank*

1) Time series breaks:
- For all counties: 2003 and onwards

2) The series has been revised for at least two years in:
- All countries, except for France and Sweden

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 EUR 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

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
AUSTRIA	184,500	189,400	196,900	197,400	202,900	205,600	214,000	221,400	228,700	236,500	235,400	237,000
BELGIUM	218,500	225,100	231,600	234,800	237,600	241,200	248,300	258,000	266,300	277,900	281,300	291,100
BULGARIA	24,000	25,700	25,800	26,200	26,400	27,400	28,700	30,700	n/a	n/a	n/a	n/a
CROATIA	28,800	28,600	27,600	27,600	26,900	27,900	28,800	30,300	32,100	33,500	n/a	n/a
CYPRUS	13,400	13,700	13,300	12,600	11,800	11,800	12,500	13,200	14,100	15,300	14,800	15,200
CZECHIA	88,200	91,300	90,600	87,900	85,800	89,700	93,700	103,000	112,800	120,100	122,800	136,100
DENMARK	116,800	120,800	123,500	125,600	127,300	132,700	138,900	143,500	147,500	152,100	152,800	160,600
ESTONIA	8,500	9,200	9,500	10,300	10,900	11,500	12,100	13,200	14,400	15,400	15,600	16,500
FINLAND	109,900	114,300	117,700	120,700	122,000	124,000	126,400	129,500	133,800	138,000	139,500	141,000
FRANCE	1,309,200	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	1,548,400	1,609,000
GERMANY	1,658,200	1,716,100	1,758,500	1,787,400	1,834,100	1,884,800	1,949,000	2,014,700	2,097,500	2,147,400	2,168,400	2,216,800
GREECE	157,400	141,900	126,500	118,100	118,200	117,900	116,300	116,100	117,200	121,900	118,500	127,100
HUNGARY	57,500	60,700	59,800	60,300	60,500	62,700	65,700	72,500	78,600	84,500	80,400	89,700
IRELAND	90,400	84,700	87,300	87,100	88,800	92,700	97,200	103,900	108,400	114,500	123,700	129,200
ITALY	1,097,000	1,125,600	1,094,800	1,100,000	1,106,900	1,120,400	1,134,800	1,158,100	1,178,900	1,187,000	1,154,700	1,197,400
LATVIA	11,900	12,000	13,000	13,500	14,300	15,100	15,900	16,800	18,000	18,900	19,400	20,700
LITHUANIA	19,400	20,300	21,200	22,200	22,500	23,200	24,900	26,000	27,600	30,100	32,700	34,800
LUXEMBOURG	16,400	17,300	18,100	19,200	19,900	20,200	20,800	22,200	23,100	24,300	25,700	26,000
NETHERLANDS	320,900	328,100	331,200	334,600	342,700	348,900	358,700	367,300	385,600	402,500	415,800	439,700
POLAND	227,600	232,600	238,600	242,000	249,800	257,500	259,600	280,000	293,600	313,400	323,700	335,800
PORTUGAL	129,900	127,300	123,800	122,700	122,400	126,600	131,400	135,500	141,400	147,900	146,600	152,400
ROMANIA	73,100	72,200	70,100	77,400	77,900	83,600	91,700	104,200	112,400	123,400	128,700	136,600
SLOVAKIA	41,800	42,100	43,200	43,400	44,400	46,700	48,200	50,600	55,400	58,200	59,400	60,600
SLOVENIA	23,100	23,600	23,000	23,000	23,300	23,700	24,700	25,900	27,500	29,200	30,300	32,200
SPAIN	690,300	694,500	658,200	655,900	656,200	682,200	700,600	722,900	743,600	780,900	742,500	758,700
SWEDEN	184,900	204,900	222,400	229,400	225,200	227,400	234,700	239,600	235,800	238,600	243,400	265,800
EURO AREA 19	6,089,100	6,208,700	6,214,000	6,245,100	6,336,700	6,471,400	6,633,400	6,824,800	7,055,600	7,268,200	7,265,400	7,510,900
EU 27	6,908,100	7,070,100	7,088,100	7,135,300	7,219,400	7,376,900	7,576,400	7,826,200	8,096,000	8,364,300	8,387,700	8,772,100
ICELAND	4,200	4,600	5,100	5,300	6,000	n/a	n/a	n/a	n/a	n/a	n/a	n/a
NORWAY	142,000	154,100	169,500	172,300	168,600	169,400	166,000	172200	173,100	176,300	168,200	188,300
SWITZERLAND	286,500	323,000	334,800	335,500	344,100	391,700	388,300	381700	373,500	394,900	422,500	412,300
UNITED KINGDOM	1,274,400	1,283,000	1,433,300	1,422,300	1,547,800	1,823,600	1,641,200	1,575,300	1,637,000	1,694,200	1,684,500	1,809,600
JAPAN	2,792,100	2,901,500	3,143,800	2,488,300	2,306,400	2,439,400	2,748,700	2,632,700	2,584,800	2,802,200	2,925,700	2,646,200
TURKEY	401,300	413,200	463,300	496,000	488,600	535,800	538,700	519,100	n/a	n/a	n/a	n/a
UNITED STATES	8,774,300	8,748,500	9,970,800	9,679,800	10,199,200	12,707,100	13,111,900	13,447,000	13,575,500	14,859,600	15,713,300	16,274,400

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

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

2) The series has been revised for at least two years in:
- All countries, except for Belgium, Bulgaria, Croatia, Iceland and Turkey

3) Notes
- For further details on the methodologies, please see "Annex: Explanatory Note on data"
- n/a: figure not available
- Please note that the disposable income of households at current prices has been taken in EUR directly from AMECO, except for Greece which was taken from ELSTAT
- Figures from Malta not available

29. Population over 18

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
AUSTRIA	6,809,974	6,851,056	6,899,032	6,953,033	7,015,329	7,093,573	7,187,684	7,247,528	7,288,698	7,322,817	7,358,443	7,388,778
BELGIUM	8,625,749	8,756,344	8,820,030	8,870,350	8,905,031	8,952,757	9,012,839	9,047,019	9,089,375	9,142,017	9,202,196	9,233,555
BULGARIA	6,216,530	6,181,328	6,145,788	6,106,540	6,066,969	6,019,998	5,963,884	5,907,405	5,857,288	5,810,294	5,761,802	5,726,002
CROATIA	3,497,838	3,489,107	3,482,850	3,475,931	3,470,956	3,461,959	3,443,950	3,422,613	3,388,668	3,370,748	3,360,840	3,344,506
CYPRUS	640,785	661,878	684,689	690,884	687,113	677,766	679,378	686,783	695,662	706,661	717,452	724,531
CZECHIA	8,617,502	8,639,375	8,668,769	8,676,895	8,662,146	8,665,578	8,657,996	8,657,869	8,661,165	8,674,679	8,694,474	8,683,168
DENMARK	4,319,228	4,349,596	4,378,227	4,412,327	4,449,811	4,489,821	4,539,791	4,580,547	4,615,690	4,645,697	4,666,625	4,687,050
ESTONIA	1,087,930	1,085,600	1,081,355	1,076,483	1,072,179	1,070,126	1,068,953	1,065,855	1,067,016	1,070,375	1,071,932	1,071,841
FINLAND	4,262,971	4,290,980	4,319,501	4,347,944	4,374,590	4,396,261	4,414,248	4,431,392	4,446,869	4,459,828	4,476,235	4,492,267
FRANCE	50,289,714	50,561,775	50,783,443	51,023,819	51,422,252	51,675,217	51,855,973	52,064,447	52,304,601	52,551,448	52,780,048	53,179,816
GERMANY	68,320,564	66,963,546	67,184,948	67,432,859	67,691,934	68,085,517	68,850,007	69,051,391	69,254,205	69,421,785	69,488,809	69,411,087
GREECE	9,152,259	9,165,757	9,131,374	9,063,145	9,002,883	8,958,738	8,907,030	8,889,805	8,869,134	8,862,859	8,864,187	8,841,684
HUNGARY	8,187,583	8,187,767	8,148,079	8,151,220	8,142,944	8,133,934	8,114,580	8,083,674	8,063,258	8,061,304	8,060,478	8,024,087
IRELAND	3,425,549	3,430,232	3,434,216	3,444,289	3,463,560	3,495,568	3,539,203	3,590,330	3,634,536	3,703,238	3,762,805	3,811,534
ITALY	49,125,682	49,321,210	49,396,435	49,662,299	50,624,663	50,699,447	50,657,518	50,678,735	50,677,616	50,243,518	50,208,329	49,885,100
LATVIA	1,745,489	1,714,389	1,693,261	1,676,807	1,655,631	1,637,436	1,616,659	1,593,589	1,575,617	1,561,155	1,548,218	1,534,689
LITHUANIA	2,539,358	2,477,645	2,447,378	2,428,149	2,410,825	2,396,789	2,370,357	2,337,516	2,305,886	2,294,609	2,295,269	2,297,362
LUXEMBOURG	394,805	403,289	415,783	426,500	437,663	449,861	461,711	474,986	485,200	496,015	506,569	513,736
MALTA	334,759	337,240	340,819	346,271	353,065	362,652	372,709	381,876	396,538	413,363	432,616	433,970
NETHERLANDS	13,060,511	13,153,716	13,243,578	13,316,082	13,386,487	13,471,533	13,562,539	13,677,409	13,794,988	13,924,408	14,070,340	14,164,193
POLAND	30,756,819	30,878,251	30,981,112	31,057,690	31,083,811	31,120,744	31,120,076	31,126,994	31,102,681	31,077,952	31,044,901	30,917,547
PORTUGAL	8,615,642	8,643,390	8,640,208	8,607,853	8,574,343	8,549,207	8,539,134	8,529,440	8,535,618	8,546,942	8,578,859	8,596,565
ROMANIA	16,417,888	16,336,812	16,254,443	16,234,182	16,204,893	16,135,980	16,036,403	15,939,348	15,845,966	15,757,669	15,684,219	15,550,331
SLOVAKIA	4,343,880	4,361,987	4,385,503	4,401,188	4,410,901	4,419,854	4,426,496	4,432,721	4,436,138	4,438,462	4,437,897	4,431,608
SLOVENIA	1,698,911	1,699,493	1,702,224	1,702,827	1,703,087	1,702,971	1,701,967	1,701,642	1,700,354	1,712,175	1,724,466	1,734,767
SPAIN	38,223,380	38,356,620	38,460,731	38,356,537	38,162,985	38,102,545	38,093,066	38,170,911	38,306,476	38,600,666	39,006,858	39,156,568
SWEDEN	7,419,589	7,496,476	7,563,649	7,627,772	7,692,386	7,762,073	7,825,940	7,918,746	7,998,644	8,074,806	8,147,081	8,189,892
EURO AREA 19	272,697,912	272,236,147	273,064,508	273,827,319	275,354,521	276,197,818	277,317,471	278,053,375	278,864,527	279,472,341	280,531,528	280,903,651
EU 27	358,130,889	357,794,859	358,687,425	359,569,876	361,128,437	361,987,905	363,020,091	363,690,571	364,397,887	364,945,490	365,951,948	366,026,234
ICELAND	236,948	238,035	239,724	242,099	245,631	249,094	252,974	258,565	268,067	276,283	282,770	286,356
NORWAY	3,749,043	3,805,931	3,867,645	3,928,378	3,982,920	4,040,722	4,083,702	4,127,266	4,166,612	4,205,704	4,248,972	4,279,679
SWITZERLAND	6,336,785	6,416,153	6,497,511	6,577,492	6,667,327	6,755,656	6,833,218	6,909,664	6,963,149	7,014,296	7,063,672	7,114,731
UNITED KINGDOM	49,424,305	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
AUSTRALIA	16,961,805	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
BRAZIL	136,816,416	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
CANADA	27,088,322	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
JAPAN	107,341,496	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
RUSSIA	116,676,953	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
TURKEY	49,092,664	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
SINGAPORE	4,137,477	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
SOUTH KOREA	39,444,294	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
USA	233,558,561	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

Sources: *Eurostat, US Bureau of Census, World Bank*

1) Time series breaks

2) The series has been revised for at least two years in:
- United Kingdom
- Australia
- Brazil
- Canada
- Japan
- Russia
- Turkey
- Singapore
- South Korea
- 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	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
EU 27												
Bulgarian lev	1.956	1.956	1.956	1.956	1.9558	1.9558	1.9558	1.9558	1.95583	1.9558	1.9558	1.9558
Croatian kuna	7.383	7.537	7.558	7.627	7.658	7.638	7.560	7.44	7.413	7.440	7.552	7.516
Czech koruna	25.06	25.79	25.15	27.43	27.735	27.023	27.02	25.535	25.724	25.408	26.242	24.858
Danish krone	7.454	7.434	7.461	7.459	7.4453	7.4626	7.434	7.4449	7.4673	7.4715	7.4409	7.4364
Hungarian forint	278.0	314.6	292.3	297.0	315.54	315.98	309.8	310.33	320.98	330.53	363.89	369.19
Polish zloty	3.975	4.458	4.074	4.154	4.2732	4.264	4.410	4.177	4.3014	4.2568	4.5597	4.5969
Romanian leu	4.262	4.323	4.445	4.471	4.4828	4.524	4.539	4.6585	4.653087	4.783	4.8683	4.949
Swedish krona	8.966	8.912	8.582	8.859	9.393	9.190	9.553	9.8438	10.2548	10.4468	10.0343	10.2503
NON-EU												
Australian dollar	1.3136	1.2723	1.2712	1.5423	1.4829	1.4897	1.4596	1.5346	1.622	1.5995	1.5896	1.5615
Brazilian real	2.2177	2.4159	2.7036	3.2576	3.2207	4.3117	3.4305	3.9729	4.444	4.5157	6.3735	6.3101
Canadian dollar	1.3322	1.3215	1.3137	1.4671	1.4063	1.5116	1.4188	1.5039	1.5605	1.4598	1.5633	1.5633
Icelandic krona*	153.78	158.98	168.89	158.29	154.31	141.38	119.15	124.209	133.206201	135.85	156.1	147.6
Japanese yen	108.65	100.20	113.61	144.72	145.23	131.07	123.40	135.01	125.85	121.94	126.49	130.38
Norwegian krone	7.800	7.754	7.348	8.363	9.042	9.603	9.086	9.8403	9.948	9.8638	10.470	9.989
Russian rouble	40.82	41.77	40.33	45.32	72.337	80.67	64.30	69.392	79.715	69.956	91.47	85.30
Singapore Dollar	1.81	1.75	1.61	1.66	1.6823	1.53	1.53	1.5588	1.5591	1.5111	1.6218	1.5279
South Korean won	1,499.06	1,498.69	1,406.23	1,450.93	1,324.8	1,280.78	1,269.34	1,279.61	1,277.93	1,296.28	1,336.00	1,346.38
Swiss franc	1.2504	1.2154	1.2072	1.2276	1.2024	1.0835	1.0739	1.1702	1.1269	1.0854	1.0802	1.0331
Turkish lira	2.069	2.443	2.355	2.961	2.832	3.177	3.707	4.5464	6.059	6.684	9.113	15.234
UK pound sterling	0.861	0.835	0.816	0.834	0.7789	0.73395	0.856	0.88723	0.89453	0.8508	0.89903	0.84028
US dollar	1.336	1.294	1.319	1.379	1.2141	1.089	1.054	1.1993	1.145	1.123	1.227	1.133

YEARLY AVERAGE	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
EU 27												
Bulgarian lev	1.956	1.956	1.956	1.956	1.956	1.956	1.9558	1.9558	1.9558	1.9558	1.9558	1.9558
Croatian kuna	7.289	7.439	7.522	7.579	7.634	7.614	7.5333	7.4637	7.4182	7.418	7.5384	7.5284
Czech koruna	25.284	24.590	25.149	25.980	27.536	27.279	27.034	26.326	25.647	25.67	26.455	25.64
Danish krone	7.447	7.451	7.444	7.458	7.455	7.459	7.4452	7.4452	7.4532	7.4661	7.4542	7.437
Hungarian forint	275.480	279.370	289.250	296.870	308.710	310.000	311.44	309.190	318.89	325.3	351.25	358.52
Polish zloty	3.995	4.121	4.185	4.198	4.184	4.184	4.3632	4.2570	4.2615	4.2976	4.443	4.5652
Romanian leu	4.212	4.239	4.459	4.419	4.444	4.445	4.4904	4.5688	4.654	4.7453	4.8383	4.9215
Swedish krona	9.537	9.030	8.704	8.652	9.099	9.354	9.4689	9.6351	10.2583	10.5891	10.4848	10.1465
NON-EU												
Australian dollar	1.4423	1.3484	1.2407	1.3777	1.4719	1.4777	1.4883	1.4732	1.5797	1.6109	1.6549	1.5749
Brazilian real	2.3314	2.3265	2.5084	2.8687	3.1211	3.7004	3.8561	3.6054	4.3085	4.4134	5.8943	6.3779
Canadian dollar	1.365	1.376	1.284	1.368	1.466	1.4186	1.4659	1.4647	1.5294	1.4855	1.53	1.4826
Icelandic krona	161.950	161.490	160.930	162.200	154.850	144.390	131.010	120.540	127.890	137.280	154.590	150.150
Japanese yen	116.240	110.960	102.490	129.660	140.310	134.310	120.2	126.710	130.4	122.01	121.85	129.88
Norwegian krone	8.004	7.793	7.475	7.807	8.354	8.9496	9.2906	9.3270	9.5975	9.8511	10.7228	10.1633
Russian rouble	40.263	40.885	39.926	42.337	50.952	68.072	74.1446	65.9383	74.0416	72.4553	82.7248	87.1527
Singapore Dollar	1.806	1.749	1.606	1.662	1.682	1.5255	1.5275	1.5588	1.5926	1.5273	1.5742	1.5891
South Korean won	1,531.82	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
Swiss franc	1.380	1.233	1.205	1.231	1.215	1.0679	1.0902	1.112	1.155	1.1124	1.0705	1.0811
Turkish lira	1.997	2.338	2.314	2.534	2.907	3.0255	3.3433	4.121	5.7077	6.3578	8.0547	10.5124
UK pound sterling	0.858	0.868	0.811	0.849	0.806	0.726	0.81948	0.8767	0.88471	0.87777	0.8897	0.8596
US dollar	1.326	1.392	1.285	1.328	1.329	1.110	1.1069	1.130	1.181	1.1195	1.1422	1.1827

Source: *European Central Bank*

1) Time series breaks

2) The series has been revised for:
- Icelandic krona

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

* For Iceland, the source for end-of-year was Bloomberg.

**For Exchange Rates

A. THE MORTGAGE MARKET

1. TOTAL OUTSTANDING RESIDENTIAL LOANS TOTAL AMOUNT, END OF THE YEAR, EUR MILLION

Total residential loans on lender's books at the end of the period. The definition of residential loans can vary somewhat across EU27 countries, depending on the collateral system and the purpose of the loans. Some countries only integrate secured residential loans, while some others include both secured and non-secured loans. In some countries, this collateral is generally the property, whilst some others favour a system of personal guarantees.

Regarding the purpose, a few countries exclude residential loans whose purpose is above all commercial (such as purchasing a building to let). In addition, there are some methodological differences across EU27 countries regarding the statistical treatment of loans made for renovations of existing dwellings: under some assumptions, some of these loans can be considered as consumption loans.

The conversion to EUR is based on the bilateral exchange rate at the end of the period (provided by the European Central Bank).

2. CHANGE IN OUTSTANDING RESIDENTIAL LOANS END OF PERIOD, EUR MILLION

Year-on-year changes in Table 2. It also corresponds to new residential loans advanced during the period minus repayments.

3. GROSS RESIDENTIAL LOANS TOTAL AMOUNT, EUR MILLION

Total amount of residential loans advanced during the period. Gross lending includes new mortgage loans and external remortgaging (i.e. remortgaging with another bank) in most countries. Internal remortgaging (i.e. remortgaging with the same bank) is not included, unless it is otherwise stated.

The conversion to EUR is based on the average bilateral exchange rate over the given year (provided by the European Central Bank).

Denmark: Denmark the figure does not include second homes.

Italy: Includes the total value of residential loans during the period, including new lending and remortgaging/refinancing of existing loan on same property.

Poland: The estimated value of newly granted loans was based on increases in the volume of loans to households adjusted for loan amortization and flows between the foreign currency loan portfolio and the zloty loan portfolio; the entire banking system was taken into account, including credit unions.

Spain: Total amount of loans and credits to households.

Sweden: The figures covers only gross lending by mortgage institutions. New mortgage lending from banks are not included.

4. REPRESENTATIVE INTEREST RATES ON NEW MORTGAGE LOANS, PERCENT

This series aims at providing the most representative figures on interest rates on mortgage loans in the EU 27 countries and beyond. For most of these countries, the source of the data is the European Central Bank (ECB), which in turn collects data from the respective national central bank. The ECB's definition of the interest rate reported is the following:

"Dataset name: MFI Interest Rate Statistics ; BS reference sector breakdown: Credit and other institutions (MFI except MMFs and central banks) ; Balance sheet item: Lending for house purchase excluding revolving loans and overdrafts, convenience and extended credit card debt ; MFI interest rate data type: Annualised agreed rate (AAR) / Narrowly defined effective rate (NDER) ; BS counterpart sector: Households and non-profit institutions serving households ; Currency of transaction: Euro ; IR business coverage: New business"

The data provided normally refers to weighted averages.

Below is a list of countries for which the above does not apply (at least in part):

Bulgaria: Weighted average of interest rates on loans for house purchase, excluding revolving loans and overdrafts, convenience and extended credit card debt, BGN (the monthly data is based on the average of observations through the period); Source: Bulgarian National Bank (BNB).

Croatia: Weighted average interest rate on HRK housing credits indexed to foreign currency (to households); Source: Croatian National Bank.

Czechia: Weighted average mortgage rate on loans to households for house purchase; Source: Hypoindex until 2012; Czech National Bank from 2013.

Denmark: Data reflects interest rates fixed up to 12 months on mortgage loans from mortgage banks

Germany: Initial fixed period interest rate between 5 and 10 years on loans for house purchase, excluding revolving loans and overdrafts, convenience and extended credit card debt, EUR (the monthly data is based on the average of observations through the period); Source: Deutsche Bundesbank.

Greece: Initial fixed period interest rate up to 1 year on loans for house purchase, excluding revolving loans and overdrafts, convenience and extended credit card debt, EUR (the monthly data is based on the average of observations through the period); Source: National Bank of Greece.

Hungary: Weighted average rate of housing purpose residential loans with different interest rate periods. The data is the average rate over the year. Source: National Bank of Hungary.

Lithuania: Total initial rate fixation on loans for house purchase; Source: Bank of Lithuania.

Luxembourg: Initial fixed period interest rate up to 1 year on loans for house purchase; Source: Central Bank of Luxembourg.

Malta: Weighted average of interest rates on loans for house purchase to households and NPISH; Source: Central Bank of Malta.

Poland: Weighted average interest rate on housing loans; Source: National Bank of Poland.

Romania: Mortgage loans granted in EUR with a maturity of 10 years or more with a charged rate fixed for 1 year; Source: National Bank of Romania.

Spain: Initial fixed period interest rate up to 1 year on loans for house purchase, excluding revolving loans and overdrafts, convenience and extended credit card debt, EUR, (the monthly data is based on the average of observations through the period); Source: European Central Bank.

Sweden: Housing credit institutions' lending rates on new agreements with variable interest rates, to Swedish households (incl. NPISH) and non-financial corporations. Variable interest rates are defined as interest rates up to 3 months fixed interest rates.

United Kingdom: Weighted average interest rate on loans secured on dwellings, GBP; Source: Bank of England.

Iceland: Average of the lowest mortgage interest rates provided by lending institutions for indexed housing loans; these mortgage interest rates are real mortgage interest rates (nominal mortgage interest rates adjusted for CPI inflation).

Japan: Since the Japanese Fiscal Year 2003 the statistics depicted is the average rates of monthly lowest interest rates of Flat 35 of which the maturity is 21-35 years. Flat35 is a long term fixed rate mortgage which is provided by the securitization business of Japan Housing Finance Agency.

Russia: Weighted average interest rates of total new housing mortgage lending in RUB; Source: Central Bank of Russia.

Turkey: Weighted average interest rates for banks' loans in TYR; Source: Central Bank of the Republic of Turkey.

United States: Contract interest rate on 30-year, fixed-rate conventional home mortgage commitments. Source: Federal Reserve.

5. AMOUNT OF GROSS LENDING WITH A VARIABLE INTEREST RATE (FIXATION PERIOD OF UP TO 1 YEAR), PERCENT

This series, based on a dataset already collected for the EMF Quarterly Review, aims at looking at the size of gross lending with a variable interest rate.

6. AVERAGE AMOUNT OF MORTGAGE LOAN, IN EUR

This series aims at providing an average figure of the amount of mortgage loans a prospective homeowner is granted in the various countries.

Denmark: The statistics captures values of owner occupation from mortgage banks.

Germany: The statistics captures the average amount of a mortgage for the purchase of a second hand single family house.

Slovakia: The statistics has been constructed by dividing the total volume of gross residential loans of a given year by the total number of concluded contracts and is based on data of the Central Bank.

United Kingdom: This figure represents the median advance made to home-owners for house purchase activity. It excludes loans made for the purpose of buy-to-let, although the figures are not that different from one another.

Iceland: The downsize of 2015 figures can be explained by the partial remortgaging due to government financed prepayment on selected loans, which spurred a large number of small mortgages in the beginning of that year.

Japan: Flat35 data for detached houses. Flat35 is a long term fixed rate mortgage which is provided by the securitisation business of Japan Housing Finance Agency. The data is available only from Japanese Fiscal Year 2004. Entire market data are not available.

7. TOTAL OUTSTANDING NON-RESIDENTIAL MORTGAGE LOANS TOTAL AMOUNT, END OF THE YEAR, EUR MILLION

Total non-residential loans on lender's books at the end of the period. Typically, these loans are the mortgage loans whose main purpose is not residential. The sum of "Total Outstanding Residential Loans" and "Total Outstanding Non-Residential Mortgage Loans" gives the total outstanding housing loans.

8. TOTAL OUTSTANDING RESIDENTIAL LOANS TO GDP RATIO, PERCENT

Total Outstanding Residential Loans is provided by the European Mortgage Federation (Table 1). GDP at current prices is provided by Eurostat and the World Bank (Table 27).

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

Total Outstanding Residential Loans is provided by the European Mortgage Federation (Table 1). Data on Disposable Income of Households at current prices is provided by the European Commission (AMECO Database) and National Statistical Offices (Table 28).

10. TOTAL OUTSTANDING RESIDENTIAL LOANS PER CAPITA - POPULATION OVER 18, EUR

Total Outstanding Residential Loans is provided by the European Mortgage Federation (Table 1). Data on population is provided by Eurostat and the US Bureau of Census, and concerns the population whose age is 18 years or more (Table 29).

B. 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

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