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Housing in the European Union: Market Developments, Underlying Drivers, and Policies

Guillaume Cousin, Christine Frayne, Vítor Dias Martins and Bořek Vašíček

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Abstract

House prices have risen sharply across the European Union over the past decade, following cycles of boom, correction, and renewed growth, with recent increases driven by structural factors. This has outpaced income growth and reduced affordability, particularly in the context of higher interest rates, while underdeveloped rental markets often fail to provide effective alternatives. Housing demand is influenced by incomes, wealth, demographics, and mortgage conditions, with wealthier households and investors playing a growing role. Urbanisation, migration, and changing family structures continue to amplify pressures in cities with limited supply. At the same time, shifts in preferences, the rise of short-term rentals, and institutional investors have added to demand in specific markets, while climate risks are increasingly priced into assets.

On the supply side, new construction has lagged behind demand due to regulatory barriers, sector inefficiencies, and labour shortages, with renovation often prioritised over building. Rising land prices, concentrated ownership, and restrictive zoning further constrain supply. Addressing affordability requires a comprehensive policy mix, balancing direct housing interventions with broader fiscal, macroprudential, and environmental measures. Evidence suggests supply-side reforms—such as land-use changes, social housing investment, and infrastructure improvements—are more effective than demand-side subsidies, which tend to inflate prices. Other tools, including rent regulation, taxation, and macroprudential measures, involve trade-offs and distributional impacts. Given the complexity of housing policy and its multi-level governance, tailored approaches at EU, national, and local levels are essential.

JEL Classification: G51, R21, R31, R52, R5.

Keywords: house prices, housing affordability, land use and zoning regulation, rental and social housing, housing finance and taxation.

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EXECUTIVE SUMMARY

Over the last decade there has been a sustained growth in house prices across the EU. Since the start of the century, house prices have nearly tripled in nominal terms across the EU. First, there was strong growth in the run-up to the global financial crisis of 2008, accompanied by a credit boom, before a period of correction. In some countries, prices declined strongly, and indebted households struggled with their debt. House price growth resumed around 2014 and there was a sharp acceleration in the pandemic years – although without the corresponding increase in debt, overall. From 2022, price growth eased, with the rise in interest rates making mortgage financing more expensive, leading to reduced demand for house purchases. Since 2024, prices have been rising again, driven by structural features that remain broadly unchanged.

House price growth has exceeded income growth over the last decade, putting affordability under pressure. Increases in house prices are not inherently concerning if they reflect the financial capacity of households to afford housing. However, over the last decade, house prices in the EU grew around 10% faster than incomes on average, reducing affordability, but with big differences across countries. In recent years, household incomes have been increasing faster than house prices. Since this coincides with a period of higher interest rates, housing affordability has decreased in most countries for those who need to borrow money to purchase a home. Small and inefficient rental markets in many Member States fail to provide a viable alternative to buying a house, with high rental costs being a feature in many capitals and a decline in the social rental stock over recent decades.

The demand for housing has been pushed up by incomes, wealth and mortgage availability. Household incomes and demographic factors – such as population and household structure – are key drivers of demand. Over time, income shows a close relationship with house price growth. It influences a household's ability to make mortgage payments and accumulated wealth is essential for affording down payments or enabling cash purchases. Wealthier households also have a greater economic capacity to participate in the housing market as investors, acquiring properties for rental income or capital appreciation, with implications for the intergenerational wealth distribution. Mortgage terms too play a significant role in the demand for housing and have short- and long-terms effects on demand, as they determine the size of the loan that a given income can service. Recently, in countries with high shares of variable rate mortgages, the increase in interest rates added to pressure on indebted households.

Demographic factors are important drivers of housing demand over the long term. Ongoing urbanisation has driven house price growth due to constrained housing supply in many European cities. Urban areas are under pressure to develop sustainable housing solutions that accommodate growing populations while balancing environmental impacts and maintaining liveability. Migration can also influence housing demand in specific areas, often exerting a more immediate impact than natural population growth. As people move into new areas, the demand for housing can sharply increase, leading to potential shortages and rising prices. This influx of new residents can strain existing infrastructure and services, prompting a need for rapid development of housing and community resources to accommodate the growing population. Over the years, changes in family structure, including a shift to more single person living and away from inter-generational living, have put additional pressure on housing markets. The evolution in family dynamics challenges housing markets to provide a wider range of options, such as smaller apartments and affordable single-family homes, to meet the diverse and changing needs of the population.

More recently, changes in preferences for housing, the emergence of short-term tourist rentals and the presence of institutional investors have pushed demand up in certain locations. The COVID-19 pandemic accelerated the trend towards teleworking, leading to increased demand for large properties, located further away from city centres. There are growing concerns that short-term rentals may reduce the supply of permanent housing and drive up rents in touristic areas, as they have likely contributed both to a contraction of the long-term rental market and to increased demand for housing as an investmentThis seems to concern some prime locations and has in some cases been related to an influx of investors. There has also been an increase in the presence of institutional investors – which is

sometimes referred to as financialisation of housing – in the major European cities, with the long period of low interest rates in the last decade contributing to this increase in demand. Their presence may add to the house price cycles, driving booms and accentuating downturns. The presence of risk from climate changes is also being capitalised into house prices.

Over the last decade, the supply of new homes has failed to keep up with demand and the construction of new homes has been at historically low levels. Tighter building regulations, and an overall decline in the productivity of the construction sector are reasons for this; the preponderance of small firms in the construction sector makes it hard to overcome the productivity challenge. While investment in housing plunged after the global financial crisis, its return to previous levels has not led to substantially higher construction of new homes. Instead, investment in renovations, including energy efficiency upgrades, has led to a slowdown in the construction of new homes, as the construction sector faces widespread labour shortages, and skills mismatches.

Regulatory and land use requirements – which serve important purposes – are significant constraints on construction, driving up land prices, and the use of housing for investment may further hinder supply. The recent rise in house prices is part of a broader, long-term trend of rising land prices driven by limited land availability. Land prices in the EU have been rising over time and over the last decade there has been a significant increase in land values in major cities, where available land is scarce, and its use constrained. Furthermore, regulatory and zoning restrictions, which generally serve important purposes in their own right such as the preservation of natural resources, are significant constraints on land availability as they determine the possible uses of available land. Relaxing these restrictions can deliver greater supply of land for building purposes. In addition, in some EU countries and regions, a relatively small percentage of landowners control a significant portion of the land. This land is often held for investment purposes, focusing on high-return opportunities. Such investment strategies contribute to housing unaffordability, particularly in high-demand markets, by restricting housing supply and driving up prices, making homeownership and rentals less accessible. Varying national regulations complicate efforts to address issues of potential land concentration and financialisation at the EU level.

Addressing affordability challenges requires a wide-ranging policy mix. Housing market developments are the result of the interaction of policies directly aimed at housing – such as social housing, rental market regulation, homeownership support policies and zoning regulations – and many that affect housing through secondary effects. These include fiscal policy, macroprudential policies, environmental and energy policies, and taxation. Addressing affordability challenges necessitates a specific policy mix tailored to both national or local (regional or city-specific) housing market conditions and taking on board all different policy areas that ultimately affect housing markets.

Supply policies are generally effective in improving housing affordability, while demand-side measures such as mortgage subsidies generally increase prices over time. Both theory and evidence from the economic literature suggest that supply-side measures are generally effective at addressing rising house prices and offer a more promising avenue than demand-side policies. Supply-side measures include reforming land-use policies, reforming property taxes (which can also affect housing demand), increasing investment in social housing, reforming the rental market, improving transport and other supportive infrastructure. Instead, many governments have introduced demand-side policies, such as mortgage interest deductibility, which can have detrimental long-term effects. Voters generally favour demand-side measures, including mortgage interest deductibility, tax rebates or mortgage payment subsidies, which appear to facilitate access to housing in the short term, but can increase demand and fuel price increases over time.

Although macroprudential tools target financial stability, they affect access to credit and have an impact on house prices. Over the last decade, such tools have been introduced across the EU to safeguard the resilience of both the financial system and borrowers. Borrower-based measures in particular are designed to ensure sound and sustainable lending practices by limiting loans with riskier characteristics, thereby protecting borrowers with lower repayment capacity and reducing the risk of default. At the same time, by moderating the demand for housing loans, they can exert downward pressure on prices. While these measures are not intended to broadly restrict access to housing credit, they may nonetheless have distributional consequences, particularly affecting younger households with low equity.

In some countries, macroprudential measures remain relatively loose, favouring debt build-up and potentially putting upward pressure on prices over time.

Building and zoning regulations across the EU are governed by multiple layers of government, which makes them challenging to change and results in significant differences. Building regulations aim to ensure safety, sustainability, energy efficiency, and address local concerns. While these objectives have their own merit – and in some cases such as mitigating climate change may be critically important – they can add constraints to the building process. Building regulations depend on EU, national and sub-national rules, and each layer sometimes adds additional stringency – known as gold-plating. As a result, a plethora of rules exists even within countries and regions. Land use and zoning regulations are in turn governed primarily by sub-national authorities. While they are intended to preserve neighbourhood character and manage congestion, they also restrict new housing development; their implementation allows local interests to impede national objectives and contribute to the erosion of housing affordability. Finally, the building permit process, essential for regulatory compliance, represents another source of inefficiency. It involves numerous public and private actors and varies greatly across countries. Current systems often rely on outdated analogue processes, and digitalisation offers a potential solution.

Many countries have rent control measures that aim to protect tenants, but these can have adverse effects. The regulation of rent is widespread in EU countries and affects how flexible rental markets are. There are a range of rules in place; they may apply either for all or a subset of renters, can limit rent levels or rent increases, may be restricted to particular areas or offer eviction protection. While there has been a general reduction in rent regulation over the longer term, since the pandemic many countries imposed more rules. These regulations affect rental market developments and reduce the incentives of landlords to undertake renovations. While rent caps can provide short-term relief by limiting increases during periods of rental pressure, they can also lead to higher rents in uncontrolled markets or reduce the supply of housing to the rental market. Stringent rent controls can lead to mismatches between supply and demand and may lead to excessive household debt as more people are pushed toward home ownership, in the absence of rental alternatives.

The provision of social housing can alleviate housing (un)affordability and there is a range of mechanisms for its provision. Most countries have some form of social housing, but the extent and type of provision can be very different and has typically diminished in recent decades. Social housing most often takes the form of rental housing at regulated prices, often (but not always) provided by the public sector or by bodies with a specific mandate to provide affordable housing. However, other forms are possible; social housing can also include properties for sale at below market value and under restrictive conditions. The reduction in social housing over time means that it now provides a safety net for a smaller set of households than previously. When well-targeted, social housing allows governments to provide affordable homes directly to low-income households, expanding the housing supply without exacerbating demand, unlike housing allowances. Additionally, social housing enables the state to capture any economic rent generated from property ownership, which can be reinvested to boost economic efficiency. Although public investment in housing construction has significantly declined across the EU in recent decades, other strategies such as grants, preferential loans, and tax deductions can effectively increase the availability of housing at below-market rents or prices.

Housing is subject to a range of tax measures which overall distort savings and investment decisions, but tax measures can be adjusted to improve the functioning of the housing market. Housing is subject to a range of taxes including property transfer taxes, ownership taxes (which include recurrent property taxes and wealth taxes), capital gain taxes and income taxes. Many of these taxes – such as transaction taxes – are distortive, but are appealing due their advantages, such as applying to a clearly defined tax base and being difficult to avoid. Recurrent property taxes also share some of these advantages but offer a more efficient source of taxation as they capture economic rents that accrue to homeowners from house price growth, namely the part driven by prices of land. However, they are typically levied at low rates, on outdated property values, in part from the political resistance to them. The capital gains that accrue from housing are typically taxed less that other forms – such as gains on stocks or investment funds – making investing in housing relatively favourable from a taxation perspective. This can lead to a diversion of investment funds away from other productive investments into housing, and can lead to increased demand for housing, particularly from wealthier households. Conversely, the

introduction of a land value tax could help dampen house prices but is subject to difficulties that require careful planning and a gradual operationalisation. Similarly, the differential taxation of vacant properties can help address affordability in areas where this is an issue; overall, it is estimated that one in six properties in the EU stands vacant.

Many countries have specific tax mechanisms that aim to subsidise home ownership and incentivise debt, which disproportionately benefit higher-income households and undermine affordability over time. Many governments support home ownership through specific mechanisms. Tax relief measures — such as exemptions on purchase-related costs and deductions for mortgage interest — encourage home buying and increase borrowing, particularly in markets with inelastic housing supply. Some Member States apply mortgage interest relief for all mortgages. Generally, this beneficial tax treatment contributes to rising house prices, particularly where supply cannot respond sufficiently, and provides windfall gains to property owners. Mortgage interest tax relief tends to benefit higher-income households more, and it may exacerbate income inequality. Despite these shortcomings, such measures are typically popular and attractive to both voters and governments.

Delivering an effective policy response to reduced affordability is a complex matter. The interaction of all the factors discussed in this paper determines the operation of housing markets across EU countries. The fact that so many countries are affected by rising house prices indicates that this is a common problem. For this reason, it is an important policy priority for the EU. But action must also be local – both a central but also at regional and sub-regional level. The complexity of the policy levers and the levels of responsibility mean that this is no easy task. The aim of this paper is to provide insight into the situation across different countries and the policy options that may be available. The ideal response will need to be tailored to the situation in different countries, and regions.

1. INTRODUCTION

House prices across the EU have been rising steadily in recent years and housing affordability has become a political concern in many countries. Over the last decade, most EU countries have experienced a significant and sustained house price growth, with a sharp acceleration at the onset of the pandemic due both to strong demand and inadequate supply. The rise in inflation and increase in interest rates that started in 2022 eased the price increases in many countries, with house prices falling in some cases. More recently, house prices have resumed stronger growth, rising once again faster than incomes. Housing affordability has risen to the top of the political agenda in many countries, and in the Union overall.[1] As the underlying dynamics that have driven prices up have not fundamentally changed, namely housing supply remain constrained and not responsive to housing demand, it is likely that housing will remain a key political concern.

High house price growth matters for the overall economy; it can result in destabilising busts but can also gradually erode growth with social consequences. The global financial crisis fifteen years ago demonstrated that housing booms can have widespread macroeconomic consequences when they end. These are primarily linked to financial stability. During the boom phase, households take on large mortgages to afford housing, and construction jobs are plentiful; once that ends, the result can be difficulties paying mortgage loans resulting in defaults, lower consumption driving unemployment and a recession, and people losing their homes. Even without such dramatic developments, deteriorating housing affordability can also have adverse economic and social consequences which can accumulate over time.[2] House prices that are out of reach for greater parts of the population will affect the ability of workers to move to areas of greater productivity and higher mortgage payments will absorb higher shares of income. Both these effects can undermine growth, and result in wider social consequences such as the absence of key workers from areas where productivity but also house prices are high. Young people may be particularly exposed and may struggle to leave the family home and start their own families.

Implementing the right policies to effectively address housing (un)affordability is complicated by complex interactions of different policies and levers held across different government levels. High house prices are a challenge for policy makers. Policy action can and does affect both supply and demand for housing. House prices cannot be directly determined by one policy lever and are instead the result of policies implemented at different levels of government, including those primarily targeting other sectors, such as environmental policy. To affect prices, policymakers must take into account the interaction of different policies and institutional structures on both housing demand and supply over time – sometimes in unintended or counter-intuitive ways – and have the willingness and ability to adjust.

This paper takes stock of the situation of the housing market across the EU, presenting its outcomes and drivers, to feed into the economic discussion on housing. It aims to provide an extensive overview of both housing markets across EU countries, including of relevant policies, to inform the process of addressing the decline in housing affordability both for purchasers and for renters. To do so, section 2 starts by reviewing house price developments across EU countries since the beginning of 21st century, with a particular focus on the last five years. It also covers household borrowing, as house prices and mortgage borrowing are inextricable linked. Section 3 considers what these developments mean for housing affordability. Section 4 analyses the valuation of house prices from an economic point of view. Section 5 discusses demand and supply drivers of house prices. Section 6 presents and assesses key policies having an impact on housing markets, to enable a comparison of policy setting across the EU countries and provide evidence to policymakers aiming to address the affordability issues that have built up.

[1] Eurofound (2023): Unaffordable and inadequate housing in Europe, Publications Office of the European Union, Luxembourg. EPRS (2025): A coordinated EU approach to housing, European Parliamentary Research Service, Briefing, May 2025.

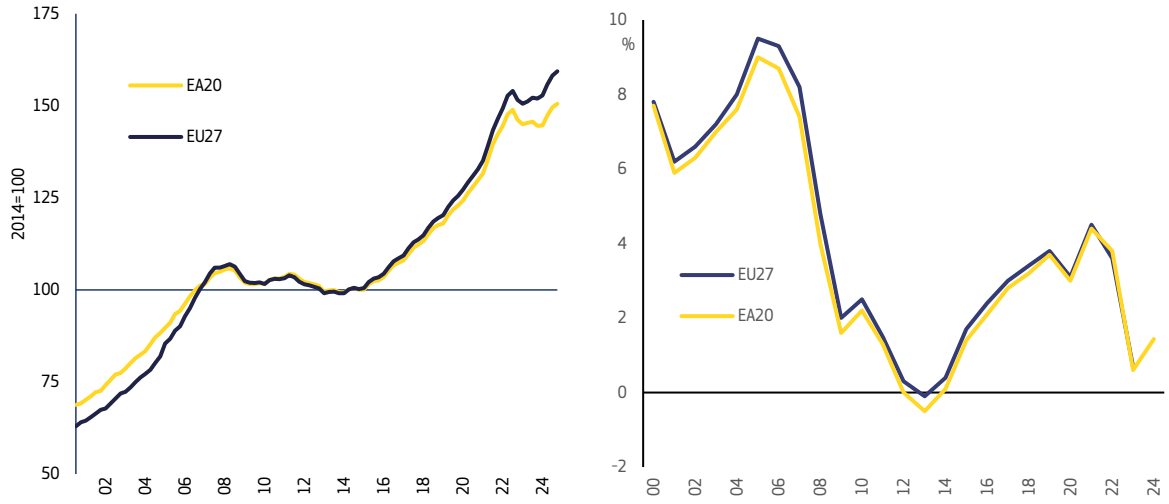
[2] Frayne, Ch., A. Szczypińska, B. Vašíček and S. Zeugner (2022): Housing Market Developments in the Euro Area: Focus on Housing Affordability. European Economy, Discussion Paper 171, September 2022.

2. LONG-TERM TRENDS IN HOUSE PRICES AND HOUSEHOLD DEBT IN THE EU

2.1. HOUSE PRICE GROWTH IN THE EU SINCE 2000

Over the last twenty-five years, house prices have almost tripled across the EU, with sustained growth over the last decade. Since the start of the century, house prices have nearly tripled in nominal terms across the EU and euro area. As shown in Graph 1, this trend can be broken down into three broad phases. First, there was strong growth in the run-up to the global financial crisis of 2008. Second, the period from 2008 to 2014 showed a small correction overall, but which was substantial in certain countries which had been experiencing house price booms.[3] Third, house price growth picked up again from around 2014 and further accelerated with the pandemic in 2020. While there was a short-lived correction in 2023, nominal house prices have recently resumed their growth.

Graph 1: **Nominal house prices (lhs), and household credit growth (rhs) in the EU and EA, 2000-2024**



Source: ECB, Eurostat, ECFIN own calculations.

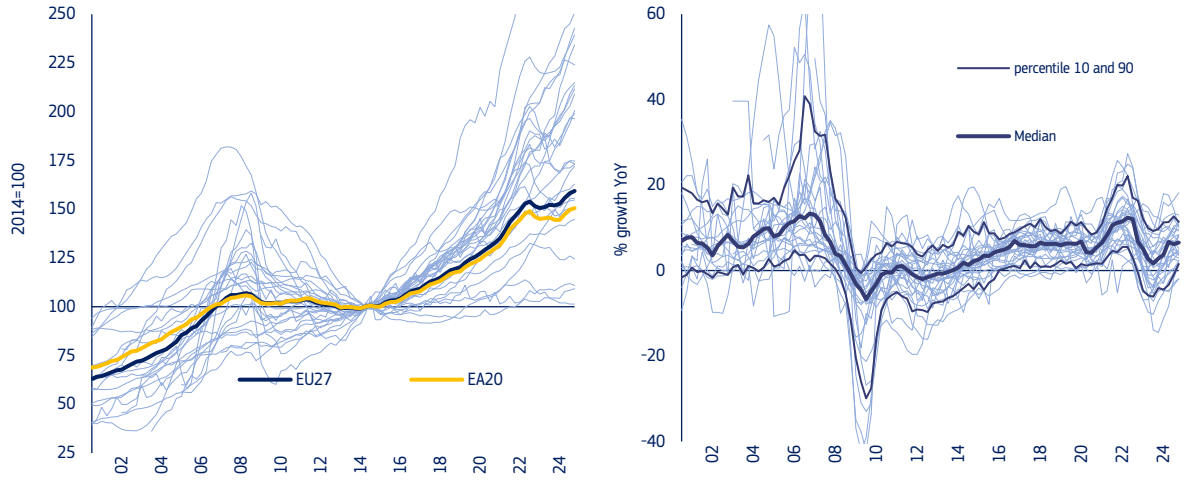
Notes: Household credit growth, refers to the household (incl. NPISH) credit flow as percentage of the debt stock in the end of the previous period.

Over the last decade, nearly all countries have experienced strong price increases, with the strongest increases have occurred in Central and Eastern European countries, in contrast to the start of the millennium when strong growth was more a feature of higher income countries. As Graph 2 shows, house prices have grown strongly in nearly all countries over the last decade, with some differences. Country-specific information is contained in Graph 3, and Annexes 1-5 has detailed graphs with time series. Over the last decade, strong growth has typically been more – but of course not only – a feature of central and eastern Member States. Between 2014 and 2024, house prices in the EU grew on average by 50%; but in Hungary, Lithuania, Czechia, Portugal, Estonia, Bulgaria and Poland nominal house price growth exceeded 200%. This contrasts with the pattern at the start of the decade where strong growth was more a feature of higher income countries. While these countries – with the

[3] Jordà, Ò., M. Schularick and A. M. Taylor (2016): The great mortgaging: Housing finance, crises and business cycles, *Economic Policy*, Vol. 31, Issue 85, 107–152.

possible exception of the Netherlands and Portugal – have experienced shallower growth over the last decade, the earlier increases have resulted in high house prices levels, and more muted wage increases mean the affordability has been under pressure for longer.

Graph 2: **House price index (lhs) and growth rates (rhs) in the EU, 2000-2024**

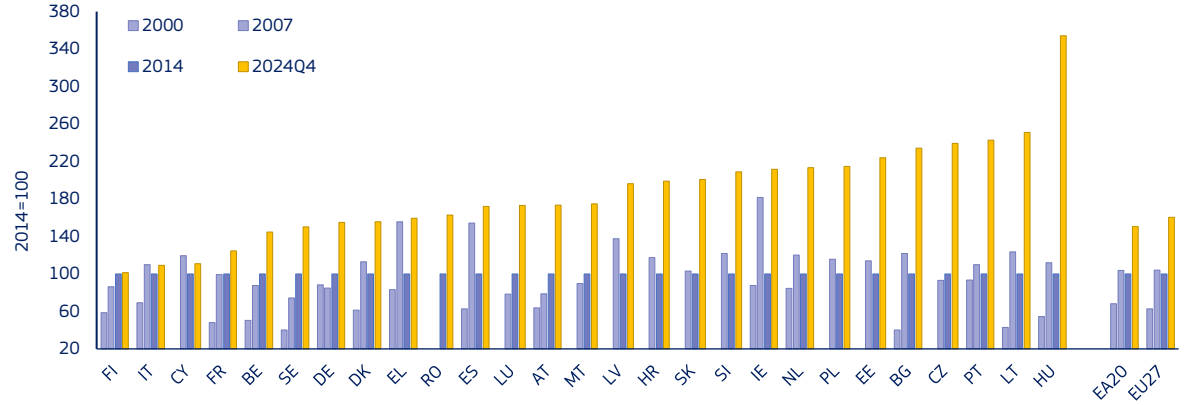


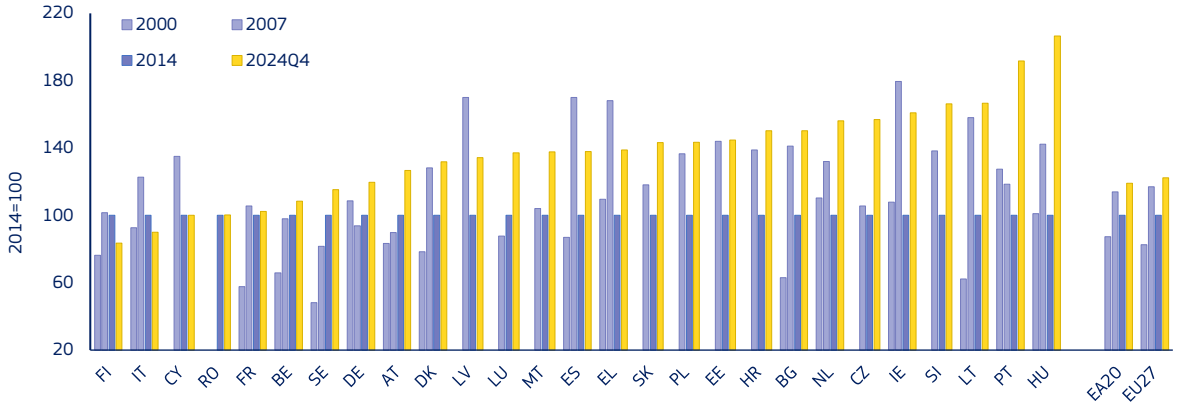
Source: ECB, Eurostat, ECFIN own calculations.

Notes: For some countries, data are not available in the early years of these charts.

Some of the increase in house prices tracks developments in inflation, but real house prices have also increased. Graph 3 also shows the evolution of house prices, deflated by the consumer price index, known as real house prices. Real house prices indicate how house prices have changed compared with consumer goods and services. Real house prices show a pronounced increase until 2022, followed by a correction, driven in part by very high inflation. Between 2014 and 2024, house prices in the EU grew 25% in real terms on average. Overall, the countries with the highest house price growth also had higher inflation. Real house prices increased the most (above 50%) in Hungary, Portugal, Lithuania, Slovenia, Czechia and Ireland.

Graph 3: **Nominal (top) and real (bottom) house prices in EU countries, 2000, 2007, 2014 and 2024, indexed to 2010**





Source: ECB, Eurostat, ECFIN own calculations.

Notes: data for 2000 and 2007 are not available for all countries.

2.2. HOUSING MARKETS SINCE THE PANDEMIC

While house price growth had been solid since the mid-2010s, the onset of the pandemic marked a period of volatility, starting with a sharp acceleration in house price growth. In the five years until 2019, the median house price growth in the EU hovered around 6% per year. With the onset of the pandemic, this doubled to 12% in both 2020 and 2021. In some countries, price growth exceeded 20% per year. It was then followed by a marked moderation – with house prices falling or at least growing much less – before stronger growth resumed in 2024. The strong price growth during the pandemic, and the high price levels that remain in many counties, resulted in concerns about house prices and affordability.

The economic circumstances during the pandemic fuelled demand for housing and constrained new supply. During the pandemic, many governments introduced financial support measures, such as mortgage holidays and income support schemes. While these supported households at time when their usual income sources came under pressure, they also, overall, helped maintain housing demand. Unable to spend on usual consumption goods, households accumulated savings. Central banks across Europe lowered interest rates to stimulate economic activity, reducing the cost of mortgages. With volatility in other investment markets and interest rates low, real estate became an attractive option for investors seeking more stable returns. In turn, construction activity slowed down due to lockdowns, labour shortages, and supply chain disruptions, limiting the supply of new homes.

The higher financing costs from 2022 drove the stagnation or correction in house prices, which took place principally in 2023. The rise in interest rates and, in many countries, falling real incomes as inflation eroded the value of wages, reduced the size of mortgage that households could finance. This led to a correction or a moderation in house prices. In Czechia, the Netherlands, Latvia, Germany, Sweden, and Luxembourg, house price growth rates started to slow in 2021, with other countries following in 2022. By 2023, the slowdown had spread, with some countries experiencing house price falls. By end 2024, nominal house prices were lower than in 2022 in Austria, Denmark, Finland, France, Luxembourg and Sweden. In parallel, housing transactions fell sharply (Graph 4).

Since 2024, house prices have been rising again and long-term structural imbalances between supply and demand should continue to drive them up in the coming years. During 2024, house prices resumed their growth, rising by an average of 5% by the end of the year. While mild house prices declines were still being recorded in France and Finland, in other countries such as Bulgaria, Hungary and Spain prices recorded double-digit growth rates. Looking ahead, house price growth can be expected to be supported by higher incomes but also by constrained supply. Constrained supply has become a structural feature of many countries' housing markets, resulting in part from regulations covering a range of factors. It is currently exacerbated by high input costs and labour force scarcity in the constructions process and should continue to underpin strong house price growth in absence of structural changes. Section 6.2 considers these factors in more detail.

Rising house prices have economic effects: while homeowners benefit from increased wealth, individuals in the lower income brackets may have to cut back on other expenses to afford housing leading to lower overall consumption. Economic theory predicts that higher house prices could induce wealth and collateral effects prompting an increase in consumption. In the short term, changes in housing values can affect consumption through wealth effects, with homeowners increasing their consumption when the value of their home increases, but over the long run both consumption and housing wealth tend to move in line with rising incomes.There is robust evidence for European countries that private consumption responds to house price movements, increasing as prices rise.[4] Identifying effects of housing wealth on consumption is however challenging, as both consumption and house prices can be affected by unobserved economic development, and the causality between the two is controversial. As a result, the influence of housing wealth on consumption might have been exaggerated in the literature; rather than high house prices driving higher consumption among homeowners, it may be that consumption and household wealth increase together for other reasons.[5] This is consistent with microeconomic studies finding that housing wealth and collateral effects are small overall.[6] At the same time, higher house prices and rents reduce disposable income available for consumption and investment, particularly among lower-income households with higher marginal propensities to consume; these are typically renters or owners with mortgages.[7] The overall effect is a shift of income away from those that are lower down in the income distribution and who are more likely to consume – fuelling growth – to those higher up, who are more likely to save their income.

Housing transactions are currently increasing again, having declined considerably as the market adjusted to higher interest rates. Housing transactions are shown in Graph 4. A high volume of housing transactions typically signals robust demand for housing, reflecting consumer confidence and economic stability – although it can also occur when a boom is underway. Conversely, a decline may indicate that the market is cooling and the emergence of potential economic challenges; a slow decline over time can be indicative of affordability issues. Before the pandemic, [8] housing transactions primarily followed a seasonal pattern. The early phase of the pandemic led to a sharp decline in transactions, but by late 2020, transaction activity had already recovered and had significantly increased in 2021. A decline took place from 2022 to early 2024, as the market adjusted to the significant tightening of monetary conditions. Since 2024, a recovery in transactions is underway. Nevertheless, the right panel of Graph 4 suggests that transaction levels remain relatively muted in most EU countries compared to the past five years, with stronger activity observed only in Spain, Portugal, Cyprus, Bulgaria and Poland.

[4] Cevik, S., and S. Naik (2023): Feeling Rich, Feeling Poor: Housing Wealth Effects and Consumption in Europe. IMF Working Paper, No. 2023/256.

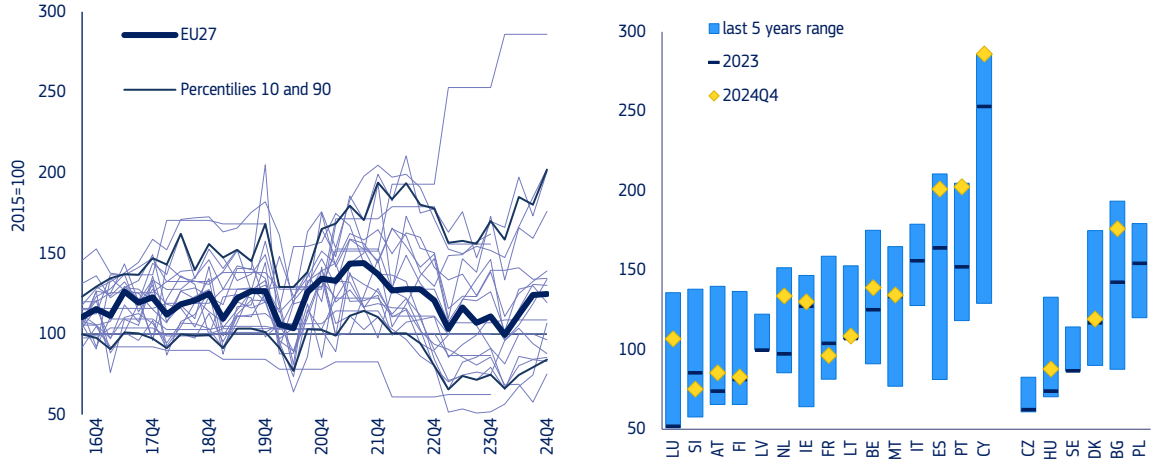
[5] Choi, J.H. and L. Zhu (2022): Has the effect of housing wealth on household consumption been overestimated? New evidence on magnitude and allocation. *Regional Science and Urban Economics*, Vol. 95, 103801.

[6] Suari-Andreu, E., (2021): Housing and household consumption: An investigation of the wealth and collateral effects. *Journal of Housing Economics*, Vol. 54.

[7] Kouvavas, O. and D. Rusinova (2024): How big is the household housing burden? Evidence from the ECB Consumer Expectations Survey. ECB Economics Bulletin, Issue 3/2024.

[8] The time series start only in 2016, and data are available only for 21 Member States.

Graph 4: **Housing transaction (index) in the EU and the EU countries**

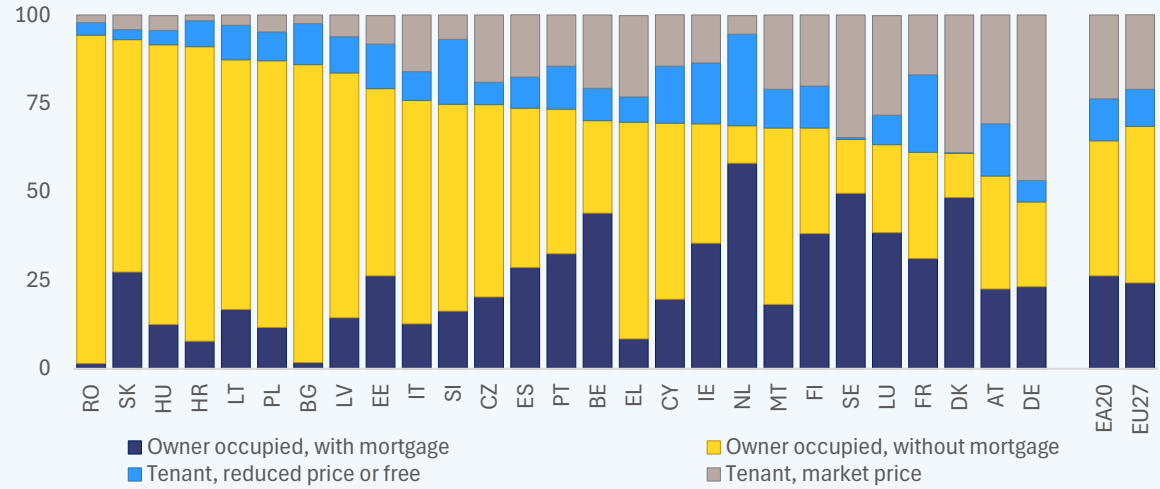


Source: ECB, Eurostat, ECFIN own calculations.

Box 1: **Structural features of the different housing markets in the EU**

Home-ownership rates across EU countries range from 50% to 90%. Housing markets across the EU differ significantly in terms of tenure status (Graph B1.1). Home-ownership rates stand at around 90% in Slovakia, while they are only 50% in Germany. These differences are in part historical – with high ownership rates in central and eastern countries being largely due to the privatisation of state-owned properties in the 1990s at preferential prices – but also driven by legal provisions, economic incentives and cultural preferences.[9] Expected house price changes and differences in ownership and rental costs play a role, with the regulation and supply in the rental market being important factors.[10] In several EU countries, there have been policies that are directly aimed at supporting home ownership, including the provision of mortgage interest tax-relief.

Graph B1.1: **Distribution of population by tenure status, in 2024 (% of population)**

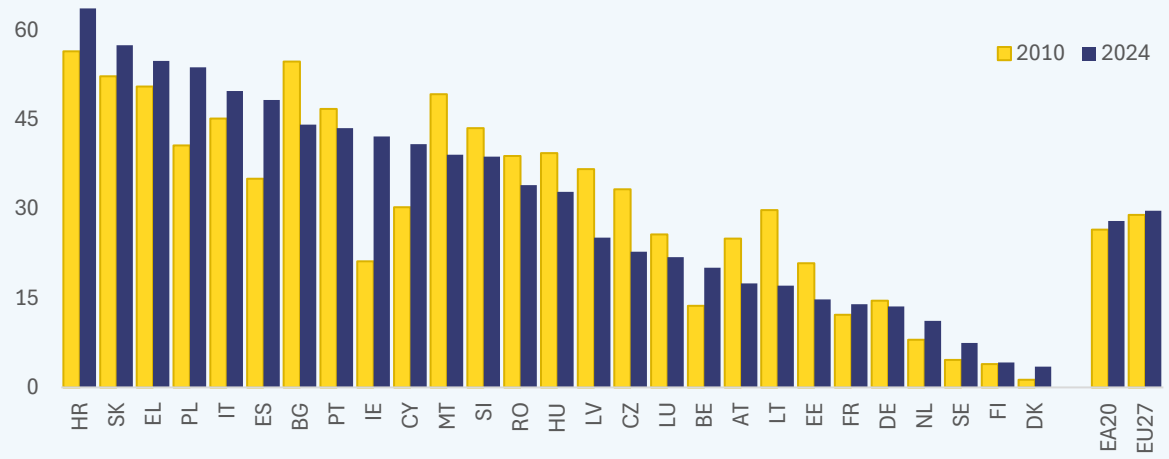


Source: Eurostat.

[9] Huber, S.J. and T. Schmidt (2022): Nevertheless, they persist: Cross-country differences in homeownership behaviour. *Journal of Housing Economics*, Volume 55, 101804.

[10] Le Blanc, J., J. Slacalek and M.N. White (2025): Housing Wealth Across Countries: The Role of Expectations, Institutions and Preferences. CESifo Working Papers, No. 11621.

Graph B1.2: **Population aged 18 to 34 years living with their parents, 2010 and 2024 (% of age group)**



Source: Eurostat.

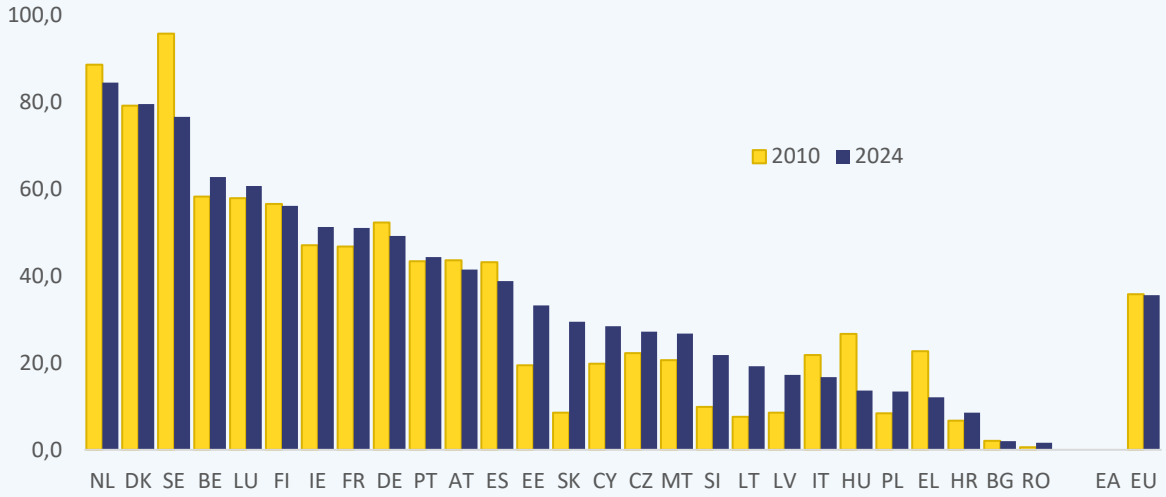
Since the global financial crisis, homeownership has declined across developed countries, especially for young adults. In the EU, the share of homeowners decreased by 2pp (from 70.2% in 2015 to 68.4% in 2024) but homeownership dropped more markedly in some Member States over the same period (by 12pp in Malta, 10pp in Luxembourg, and 5pp in Germany, Greece, Spain and Finland for instance). Young people are generally more likely to live in rental housing than the average population and a large share of young adults live with their parents. As graph B1.2 shows, this corresponds to around a third of 18–34-year-olds overall in the EU, but with large differences across countries. In addition, in some countries where there were high rates of young people living with their parents already in 2010, this share has increased further over the last fifteen years. Young people struggle more than the average population in the housing market, and this reflects both labour markets developments, with young people being more likely to be unemployed, and rising house prices. Young adults tend to have more difficulties in getting a mortgage due to lack of capital or employment stability.[11]

The share of the population with a mortgage varies significantly across EU countries and has seen changes in recent years. Within the category of homeowners, there are significant cross-country difference in terms of the proportion of households with mortgages, as shown in Graph B.1.3. This is linked to the overall share of household debt, as mortgage debt is its main components, and Graph B.1.4 shows the overall share of the population with mortgage debt. The high rates of home ownership in countries like in Central and Eastern Europe (CEEC) are accompanied by low shares of mortgage holders, while the majority of owners in western and northern European countries such as Denmark, Sweden, Belgium, Luxembourg and the Netherlands have mortgage loans. In recent years, however, there has been a shift towards mortgage-financed homeownership across the EU, particularly in countries with previously low mortgage uptake. This is the case, for example in Estonia, Lithuania, Slovakia, and Poland, as well as Portugal.

Symmetrically, the share of tenants has increased over time with large differences across the EU. The share of tenants increased from 29.8% in 2015 to 31.6% in 2024 in the EU. The share of tenants is above 30% in 12 Member States, with Germany having the highest share of tenants (53%), followed by Austria (46%) and Denmark (39%). While a high share of tenants seems to be a structural feature of some housing markets, the share of tenants has increased rapidly over the last decade in some Member States, with increases of 10pp in Luxembourg and 12pp in Malta. The rental markets also differ among countries, with significant differences across Member States related to the share of tenants renting at market prices or at reduced prices. On average, tenants renting at market prices represent 2/3 of renters in the EU. The share of tenants renting at market prices is above 80% of tenants in Germany, Denmark and Sweden and above 50% in 14 Member States overall. Member States where tenants renting at reduced prices represent a high share of tenants tend to be countries where the share of homeownership is high. For instance, tenants renting at reduced rates represent close to 80% of tenants in Bulgaria, Croatia and Lithuania, where

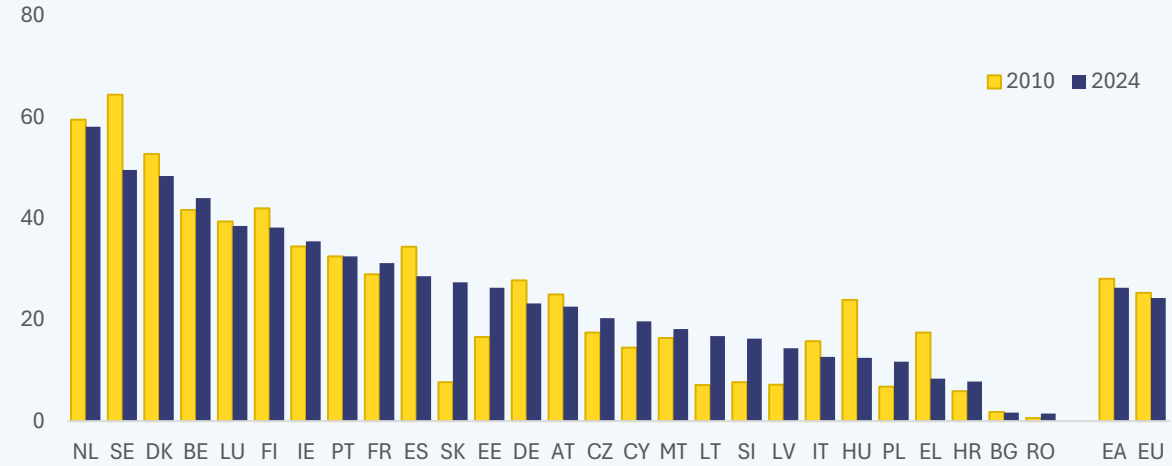
ownership rates are around 80%, while the share of tenants renting at reduced prices is slightly above 10% in Germany, which is the country with the highest share of tenants overall. Yet, the share of tenants renting at reduced prices is also high in the Netherlands, France and Slovenia. Over time, the share of tenants renting at reduced prices has increased slightly in the last decade in the EU, but it has increased significantly in some Member States (particularly in the Netherlands, and, to a lesser extent, in France and Luxembourg).

Graph B1.3: **Share of homeowners with a mortgage**



Source: Eurostat and ECFIN own calculations.

Graph B1.4: **Share of population with a mortgage (% of population)**



Source: Eurostat.

Innovative housing models are emerging across the EU to enhance affordability and community living, despite facing implementation challenges. In many EU countries, there are long waiting lists for social housing for individuals who cannot afford to purchase or rent housing at market rates. A variety of housing models has emerged as alternatives, namely housing cooperative and collaborative housing (cohousing).[12] Housing cooperatives have a significant presence in some EU countries, especially in urban

[11] Cournède, B. and M. Plouin (2022): No Home for The Young?, chapter in *Stylised Facts and Policy Challenges*, OECD Publishing.

[12] Crabtree-Hayes, L. (2023). Establishing a glossary of community-led housing. *International Journal of Housing Policy*, Vol. 24, Issue 1, 157–184.

markets, and receive municipal support through tax breaks and preferential land access. In countries such as Germany, Austria, Denmark, Sweden and Italy, housing cooperatives and other types of not-for-profit businesses provide a large share of social housing. There is evidence that the introduction of stricter rent increase limits is more effective when housing cooperatives are present, as they tend to reduce rents. In contrast, there is little evidence that such limits effectively reduce rents charged by for-profit landlords.[13] Collaborative housing[14] is another alternative. In this case, the individuals may own private spaces and share common areas, or ownership may be distributed across a group, usually in a cooperative setting. Projects may be initiated by the residents or by an external third party, which shapes the project's goals and structure.[15] These models often emphasize a strong sense of community, aiming to address not only housing needs but also broader social and environmental objectives. However, diverse challenges impede the widespread adoption of collaborative housing, namely regulatory obstacles, funding difficulties or complicated decision-making.[16] Last but not least, shared housing in the private rental sector, i.e. household of people who are not all connected through family or personal relationships, is becoming another significant household arrangement. This model is getting some prominence especially among young adults in many European cities amid lack of housing affordability. However, like the other alternative models of housing, it faces diverse regulatory challenges.[17]

2.3. CREDIT AND HOUSEHOLD DEBT DEVELOPMENTS

Since the start of the millennium, rising household debt accompanied house price growth, but mortgage credit no longer appears to drive house prices. The relationship between house prices and debt lies at the heart of the financial sector risks associated with house price growth. In the run-up to the global financial crisis, household credit grew strongly, driving an increase in household debt and fuelling house price growth. As shown in Graph 1, this credit boom peaked around 2006 with a period of falling credit flows lasting until 2013. Since then, mortgage flows have increased but have been more subdued. Unlike in the first decade of the millennium, they have lagged rather than led house price growth. More recently, there has been a downturn in lending, as a result of the sharp increase in interest rates in 2022.

There was a sharp rise in household debt at the start of the century, but the household debt to income ratio has been declining since 2010. As shown in Graph 5, household debt rose strongly from 62% of household income in 2000 to 79% by 2007, with much stronger increases in countries such as Denmark, Ireland, Spain, Estonia and Latvia. The debt increase resulted in serious macro financial instability in a number of countries, as house prices fell, unemployment rose, and borrowers were unable to repay their debts. Household debt started to fall overall from around 2010. This reduction has been due to reduction in new borrowing, and the impact of economic growth reducing the ratio of pre-existing debt to income. Many countries also introduced a range of macroprudential measures which somewhat lowered the dynamic of excessive lending in the second half of 2010s. This reduction in household debt has been particularly strong since the pandemic, with high inflation eroding the ratio of previous debt to income and limited new borrowing.

Household indebtedness varies strongly across the EU countries and is linked to patterns of home ownership. Despite some common developments, there are clear differences in terms of household debt levels and dynamics across EU countries. Household debt as a share of disposable income

[13] Wrede, M. (2024): Housing Cooperatives, Housing Affordability, and Rent Control. CESifo Working Papers, No. 11452.

[14] The term 'collaborative housing' is generally used in housing research and policy as an umbrella term to encompass co-living, cooperative housing, limited equity trusts, community land trusts, developer-led cohousing

[15] Jepma, M., F. Savini and A. Coppola (2024): Property and values: the affordability, accessibility, and autonomy of collaborative housing. *International Journal of Housing Policy*, Vol. 25, Issue 1, 170–192.

[16] Jeske, J. I., P. Hagbert and E. Engström (2024): Sustainability potentials of collaborative housing and the barriers to realisation: a systematic review. *International Journal of Housing Policy*, 1–20.

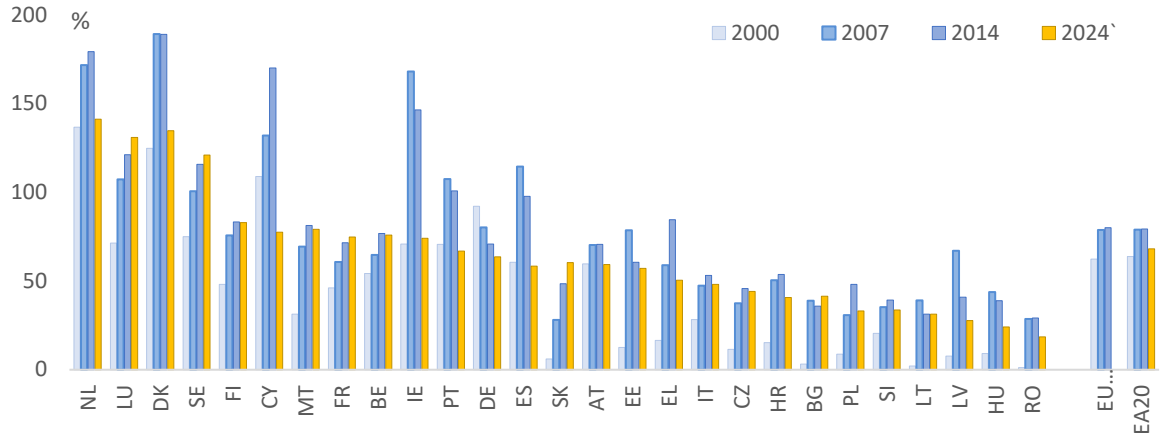
[17] Ronald, R., P. Schijf and K. Donovan (2023): The institutionalization of shared rental housing and commercial co-living, *Housing Studies*, Vol. 28, Issue 5, 1–25. Goodall, Z., W. Stone and K. Cook (2023): Housing policy and non-commercial shared housing in the private rental sector: a scoping review. *Housing Studies*, Vol. 39, Issue 11, 2919–2937.

is high in some western EU countries, while debt levels are low in central and eastern European countries, as shown in Graph 5. While home ownership in countries such as the Netherlands, Denmark, Luxembourg and Sweden is usually linked to mortgage funding, high rates of home ownership in central and eastern Europe are related to the privatisation of the municipal apartment stocks during the 1990s. The sharpest falls in household debt over the last decade have occurred amongst many of the highest debt countries. However, Luxembourg and Sweden – and to some extent Finland - are clear exceptions.

The regulatory and policy environment across EU countries plays a crucial role in shaping household borrowing behaviour and financial stability. In western European countries, robust regulatory frameworks and well-developed financial markets facilitated access to credit, supporting higher levels of household debt which built up decades ago. In contrast, in central and eastern European countries, the expansion of mortgage financing goes only back to the 2000s. These countries' banking systems typically have exhibited more conservative lending practices and stricter credit conditions, which contributed to lower household debt levels, although access to mortgage borrowing has been becoming easier over time.

The expectation of sustained economic rent extraction from housing, which is seen as a relatively safe asset, can displace productive investments in enterprises and undermine economic growth. In many prosperous areas, housing supply is so limited that property markets exhibit behaviours akin to quasi-monopolies, allowing property owners to absorb profit gains without necessarily enhancing the productivity of the properties themselves. Purchasing housing can offer higher returns than productive investment into companies. This dynamic can lead to economic imbalances, as capital that could be directed towards innovative and productive ventures is instead funnelled into real estate. The preference of the euro area banking system for mortgage credit over loans to non-financial corporations further exacerbates this issue, as studies show that credit to non-financial firms is more strongly correlated with increased economic output than mortgage lending.[18] While returns from housing investments are often considered relatively safe, an overemphasis on them risks neglecting other sectors that could drive sustainable economic development. This challenges the notion that public investment in housing will naturally finance itself through returns perceived as safe, highlighting the need for a balanced approach to investment that prioritises broader economic growth.

Graph 5: **Household debt in % of household adjusted disposable income in the EU countries, 2000, 2007, 2014 and 2024**



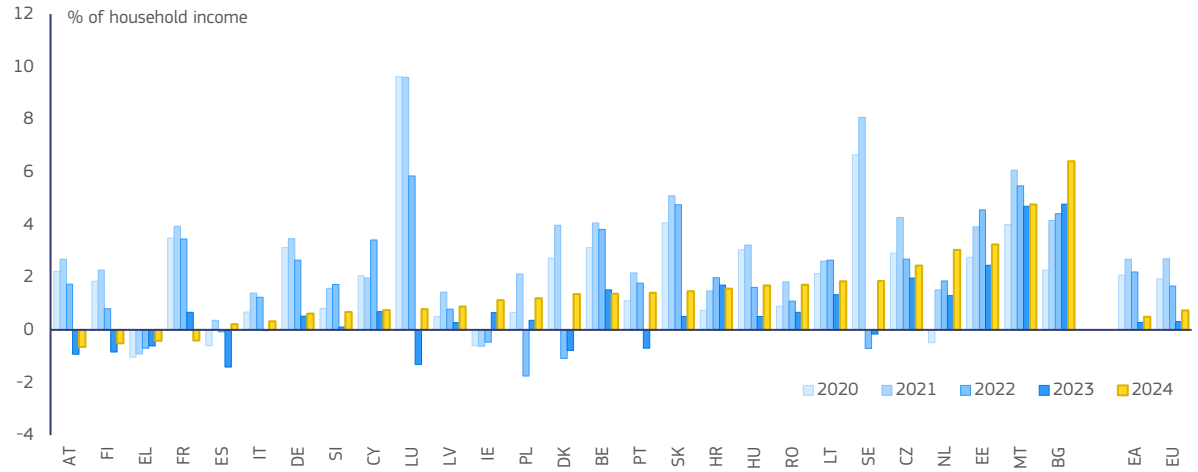
Source: ECB, Eurostat, ECFIN own calculations.

Credit to households accelerated during the pandemic, but higher financing costs have led to muted credit developments more recently. A small acceleration of mortgage credit took place in

[18] Martins, V., A. Turrini, B. Vašíček and M. Zamfir (2021): Euro area housing markets: Trends, challenges and policy responses. European Economy – Discussion Paper, No. 147. Ryan-Collins et al. (2017).

2021 and 2022, supported by favourable credit terms, as shown in Graph 6. To mitigate the impact of the pandemic on borrowers and on the banking system, some countries temporarily eased their macroprudential tools, enabling households to access more credit than would previously have been the case. A slowdown and then strong fall in credit was evident in 2023, as interest rates increased, and house prices adjusted down. Some countries, such as Slovakia, Czechia, Luxembourg, France, Sweden or Germany, where credit growth was rather strong until 2022, experienced a particularly marked decline in credit growth. Conversely, some countries such as Bulgaria, Lithuania, Estonia or Croatia experienced uninterrupted strong household credit growth over recent years. At the end of 2024 a partial recovery of mortgage growth was underway across the EU with still significant dispersion across countries.

Graph 6: **Flow of loans for house purchase, 2020-2024, % of household income**



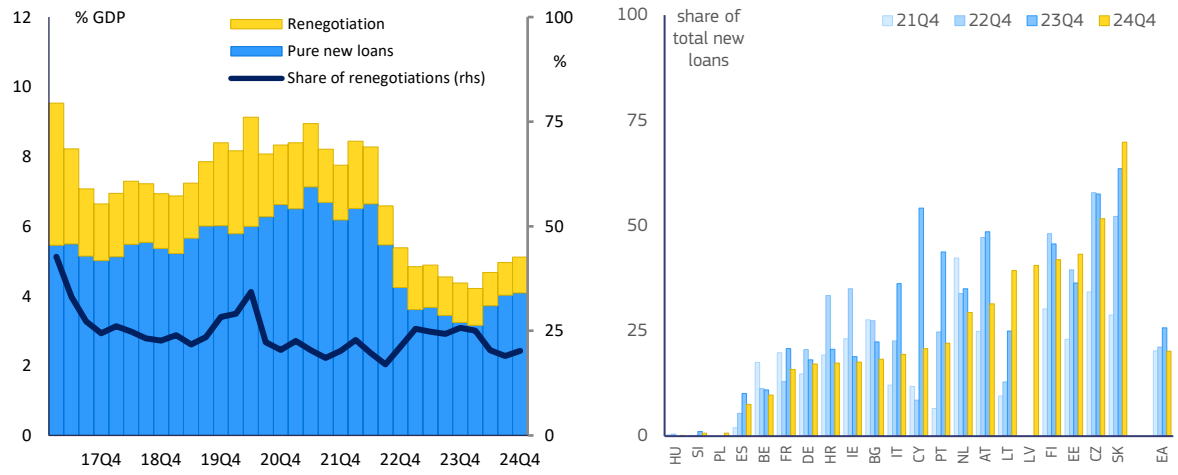
Source: ECB, Eurostat, ECFIN own calculations.

Notes: Loans to households for house purchase adjusted for sales and securitisation in net terms, i.e. newly originated loans net of repayments of previously granted loans.

Since the increase in interest rates, loan renegotiations have decreased, with cross-country differences reflecting different mortgage terms. The ability to renegotiate mortgage terms can be important for borrowers, who can otherwise be locked into long loans on unaffordable terms. The left-hand panel of Graph 7 decomposes the data on new loans for house purchases into so-called pure new loans (which correspond to new business) and renegotiations of existing loans, in the euro area.[19] Overall, the share of renegotiations in new loans fell somewhat over the pandemic and has decreased as a share of GDP in recent years. Although a recovery in loan flows started in 2024, renegotiations remain at a comparatively low level, possibly due to the unattractiveness of current mortgage terms, reflecting higher interest rates. The right-hand panel of Graph 7 points to significant difference in renegotiation share (of new loans) across countries. While in countries such as Hungary, Slovenia or Poland, the share of renegotiations is marginal, in countries like Slovakia, Czechia or Estonia renegotiation made up to 50% of the new loans for home purchase. This variation partly reflects the differences in mortgage fixations and terms, which influence how easily borrowers can renegotiate or repay their mortgages ahead of schedule; generally, shorter fixation periods allow more flexibility for restructuring.

[19] The data for most EU countries start in 2018. As renegotiations are recorded only those with the same bank. However, if a client prepays a mortgage loan with one bank to take it under more favourable conditions from another, this is recorded as new business.

Graph 7: **Renegotiations and pure new loans for house purchase in Euro Area (lhs) and renegotiations of loans for house purchase in EU countries (rhs), 2021-2024, % of GDP**



Source: ECB, Eurostat and ECFIN own calculations.

Notes: In the right panel, data is missing for Denmark, Greece, Luxembourg, Malta, Romania and Sweden.

3. DEVELOPMENTS IN HOUSING AFFORDABILITY IN THE EU

The extent to which house prices are too high – from either an affordability or an economic stability point of view – depends on a range of developments. Increases in house prices may be indicative of worsening affordability but are not in themselves sufficient to conclude that house prices are too high. This section looks at the extent to which the increases in prices have also made it more difficult for individuals and families to afford housing. It concludes that overall, this is indeed the case, although not necessarily in all countries. However, as the analysis contained is based on country-level data and considers median households, it does not cover the full range of experiences for households. In countries where housing affordability does not appear to be a huge concern overall, there will still be many families for whom housing is too expensive, particularly in certain regions.

Drawing strong conclusions about affordability is difficult due to data shortcomings. Specifically, cross-country data on house prices is provided by statistical authorities in terms of indices. This means that these data give the change in prices across time, but not the actual level. Moreover, for rental costs, inflation data only cover existing contracts, in many cases not reflective of the evolution of costs for new rental agreements. Data on levels are available from a number of other sources, mainly private firms. While these are useful in understanding house price affordability, comparisons across data sources are hampered by methodological differences. These data should therefore be interpreted with caution. Nonetheless, these data reveal a general trend of house and rental prices being unaffordable for many households. Having data disaggregated at regional level and more information than just the average price e.g. about the distribution of prices, would also help improving the analysis on affordability.

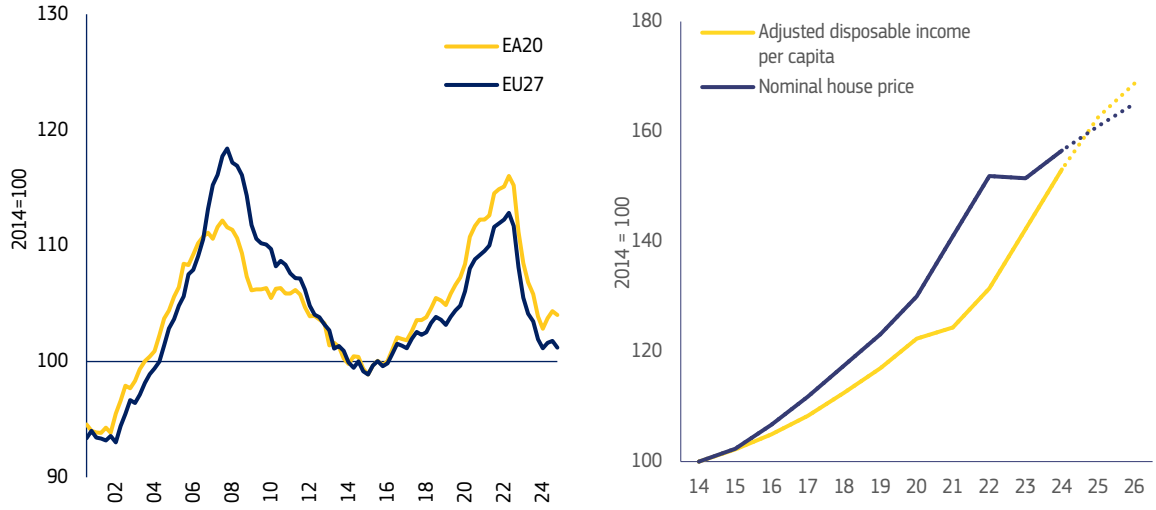
3.1. PRICE GROWTH RELATIVE TO INCOME

Over the last decade, overall house prices grew faster than income, putting pressure on affordability. Increases in house prices are not inherently concerning if they reflect the financial capacity of households to afford housing. Price-to-income ratios, shown in Graphs 8 and 9, compare the change in house prices to the changes in household disposable incomes, and are a measure of the affordability of

housing. As shown in Graph 8, house price growth started outstripping income growth in 2016, and the gap between the two increased sharply over the pandemic. While a substantial part of this gap has been closed since 2022, overall house prices in the EU grew around 10% faster than incomes on average between 2014 and 2025. While this is much lower than the overall increase in nominal prices, it represents a considerable erosion of purchase affordability.

There are substantial differences between countries in terms of the change to affordability. Both across there are large differences in the extent to which house price growth has exceeded income growth. Once household income is taken into account, the strongest increases over the last decade are no longer concentrated in the centre of the EU and the east but are geographically mixed; Portugal, the Netherlands, Hungary, Luxembourg, Ireland, Czechia and Austria have the largest rises, with price to income ratios that are over 20% higher than a decade ago. Conversely, some countries, such as Romania, Cyprus and Finland have seen prices fall relative to incomes since 2014. This decline is even more marked going back to 2007 for most central and eastern countries, particularly Bulgaria, Latvia, Poland and Lithuania, as household income growth has been very high as these (sometimes formerly) lower income countries have been growing strongly. This puts some context to the overall high house price growth, as it does not stand out relative to other goods and services – and incomes – for the general population, as much as it would seem by looking at nominal house price levels. However, the situation varies among income groups and age cohorts, with lower-income and younger groups being the most affected.[20]

Graph 8: **Price-to-income ratio (lhs) EU and EA, 2000-2024, and EU nominal house price and income growth (rhs), 2013-2026**

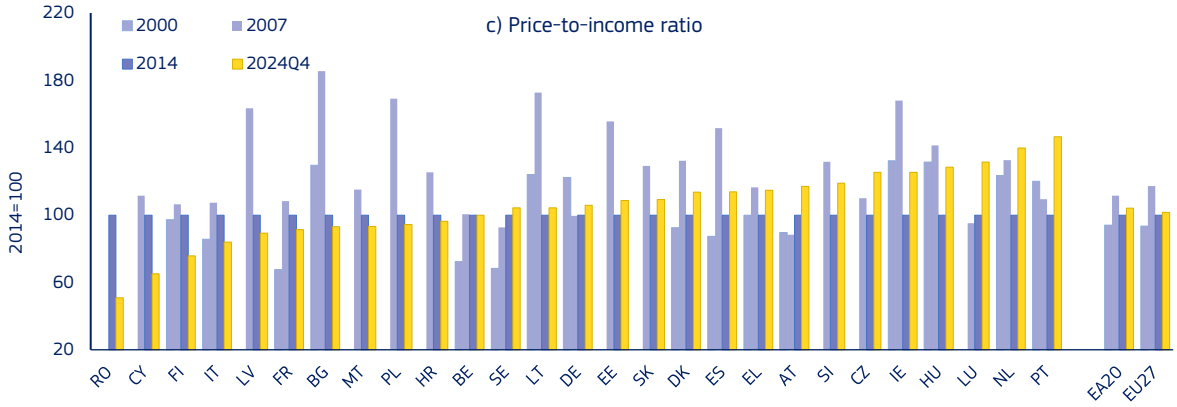


Source: ECB, Eurostat, ECFIN own calculations.

Notes: In price-to-income ratio, income refers to the adjusted disposable income per capita.

[20] Kouvavas and Rusinova (2024).

Graph 9: **Price to income ratios in EU countries, 2000, 2007, 2014 and 2024, indexed to 2014**



Source: ECB, Eurostat, ECFIN own calculations.

Notes: Data for 2000 and 2007 are not available for several countries.

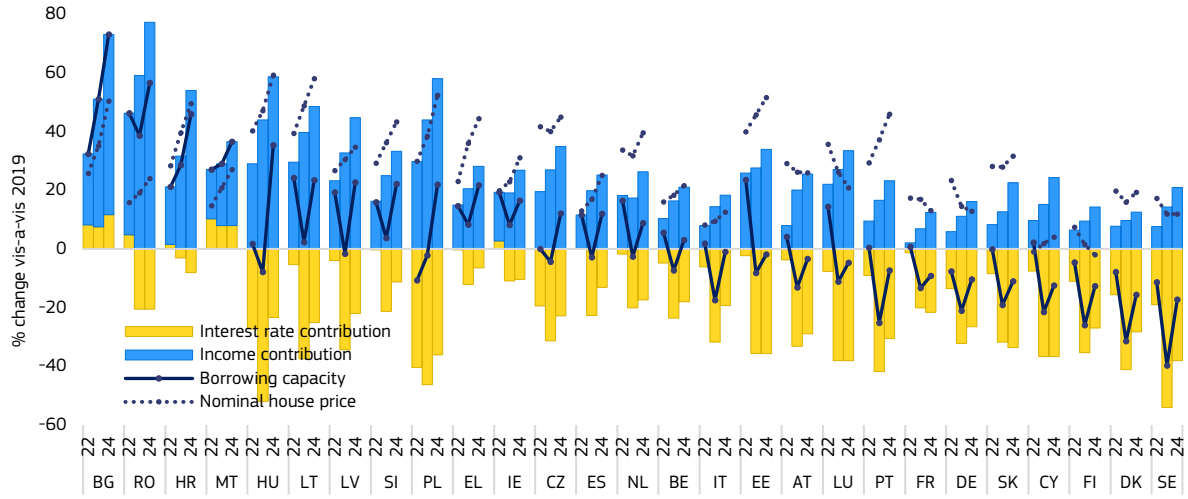
3.2. COSTS OF BUYING A HOUSE IN TERMS OF MORTGAGE PAYMENTS

For households that need to borrow to buy a home, affordability is affected by their ability to finance a mortgage depending on house prices, income and credit conditions, in particular mortgage interest rates. As shown in Box 1, in many EU countries home purchases typically involve a mortgage being taken out. Even in countries where most homes are owned outright, younger generations are now increasingly resorting to mortgage finance to buy their homes. For those households, housing affordability does not just depend on the purchase price of their home (relative to their economic means), but on the overall cost of the mortgage that they must finance. Mortgage interest rates are critical in this respect. Increased house prices – even relative to incomes – can be more affordable, if they are accompanied by large enough reductions in interest rates, bringing the overall cost down. Conversely, falling house prices can still be less affordable, if interest rates rise, increasing the overall cost of purchase.

In recent years, rising interest rates have reduced the amount that households can afford to borrow since the pandemic, although in some cases there have been large increases due to income growth. Graph 10 shows the evolution of the borrowing capacity of households. It presents estimates of the maximum loan a household can afford, while devoting a constant share of income to mortgage repayments.[21] The methodology considers the impact of the capacity to borrow from a bank (as measured by the loan-to-value ratio), the evolution of household income, national tax and benefits related to house ownership, and the mortgage interest rate. The estimates reflect the evolution of house prices that credit-constrained households can afford under current income and interest rate conditions. As the graph shows, household borrowing capacity is lower in 2024 than in 2019 in 12 Member States, due to the strong impact of higher interest rates. In the remaining 15 countries the borrowing capacity increased, largely as the result of inflation-driven income growth. Since the rise in interest rate in 2022 (although these have now fallen somewhat, they remain higher than before the tightening cycle), household borrowing capacity is broadly stable in many countries. Strong income growth has increased borrowing capacity in Bulgaria, Romania, Croatia, Czechia and Hungary, while it has fallen in Estonia, Luxembourg, Portugal, France, Slovakia and Cyprus.

[21] For more details, see *European Commission* (2023): Housing Market Developments: Thematic Note to Support In-Depth Reviews. Institutional Paper no 197.

Graph 10: **Households' borrowing capacity and house price changes, % change vis-à-vis 2019**



Source: Eurostat, JRC, ECB and ECFIN own calculations.

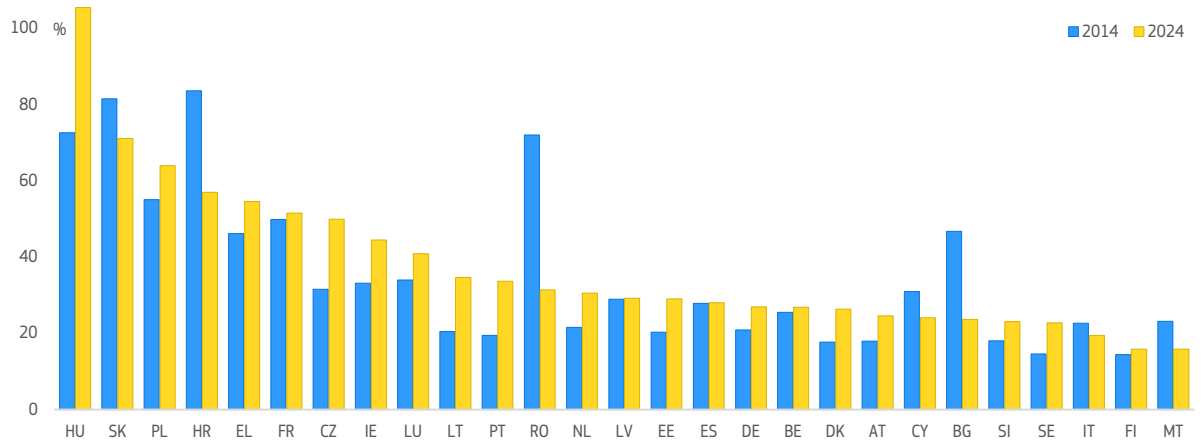
Notes:

1. Borrowing capacity reflects the evolution of house prices that credit constrained households can afford by devoting a constant share of their income (median equivalised, i.e. per person, income) to mortgage payment at the origination of the mortgage.
2. For loan maturity the maximum maturity is used, available in Grünberger et al. (2023).
3. The loan-to-value (LTV) ratio considered is 100% and other variables, like taxation, tax relief and transaction costs were fixed to zero to capture only the impact of income and interest rates on borrowing capacity.
4. The type of mortgage considered is full amortisation mortgages with constant payments.

Overall, households needing mortgages to pay for housing have faced a reduction in affordability in nearly all EU countries since 2019. Graph 10 also shows the change in house prices in the dotted lines. It shows that with the exception of Bulgaria, Romania and Malta, house price growth has exceeded the change in borrowing capacity in all other countries. Although the difference between the two has reduced somewhat in 2024, overall, the strong increase in house prices between 2019 and 2024 means that housing has become less affordable for those needing to borrow, once the positive contribution of income growth and the negative impact of higher interest rates is taken into account.

The increase in the house price-to income ratio means that there has been an increase in the share of income needed to pay for a loan over the last decade, in most EU countries. A complementary measure of housing affordability is the share of income a representative household would need to cover mortgage payments to buy a property, as this can represent the financial burden of buying a home for household. Graph 11 shows how this has evolved over the last decade (considering the first year of mortgage). The estimates are based on the income of a median household, and it is assumed that both interest and mortgage principal are covered. It should be highlighted that these estimates depend on house price level data, which as discussed in Box 2 are not fully reliable. The estimates should therefore not be taken to be very precise – nevertheless, their evolution is informative. The graph shows that the mortgage service burden is higher in 2024 than in 2014 in 21 EU countries. In 9 countries it exceeds 40% of the income of a two-person household. As these data are national data, it can be expected that there are wide regional variations.

Graph 11: **Mortgage service as % of income (first year of mortgage), 2014 and 2024**



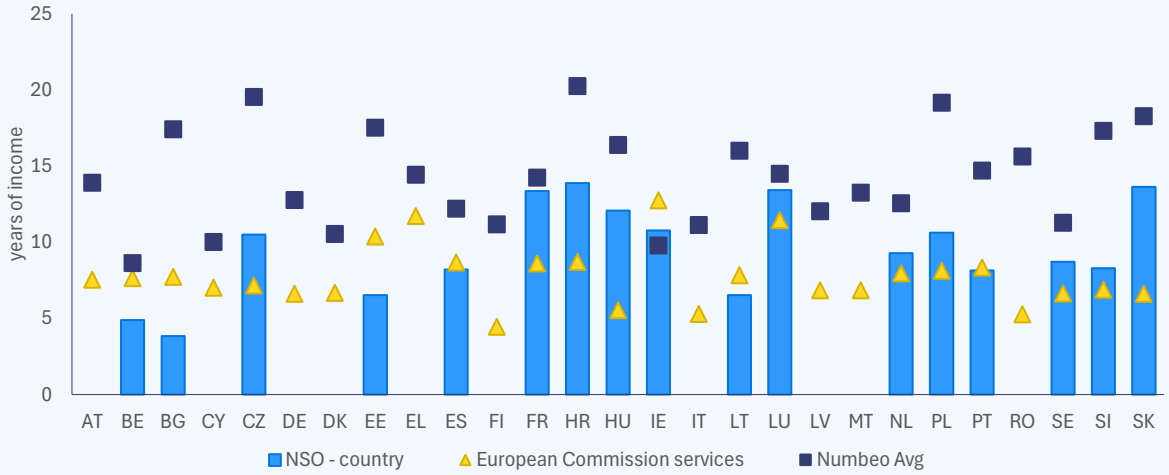
Source: Eurostat, JRC, ECB and ECFIN own calculations.

Notes: The mortgage service as percentage of income is calculated by dividing the annual cost of a mortgage (interest and principal amortisation) required to buy a 100 m2 apartment by a family median income. The family median income is defined as two times the median equivalised (i.e. per person) income. For loan maturity is used the maximum maturity, available in Grünberger et al. (2023). The LTV ratio considered is 100% and other variables, like taxation, tax relief and transaction costs were fixed to zero to capture only the impact of income and interest rates on borrowing capacity. The type of mortgage considered is full amortisation mortgages with constant payments.

Box 2: **House price levels**

Having house price in levels is crucial for assessing housing affordability for purchasers, but there are no reliable cross-country comprehensive data. While data on price changes are readily available from statistical authorities, comparable house level data do not exist across EU countries. Price changes provide insights into market trends and fluctuations over time, but they do not offer a complete picture of the actual cost of housing, which is essential for evaluating affordability. The lack of comprehensive data on price levels poses a challenge for comparing housing affordability internationally and for identifying regions where housing costs may be disproportionately high relative to incomes. Moreover, only with detailed data on the distribution of house prices at the regional level it is possible to estimate the share of the housing stock that a particular income group can afford in a given area. Graphs B2.1 an B2.2 present estimates of house price levels from various sources, covering both national averages and for capital cities. In fact, the difference between the highest and the lowest estimates exceeds ten years of median income in nine countries at national level, and in five countries for capital cities.

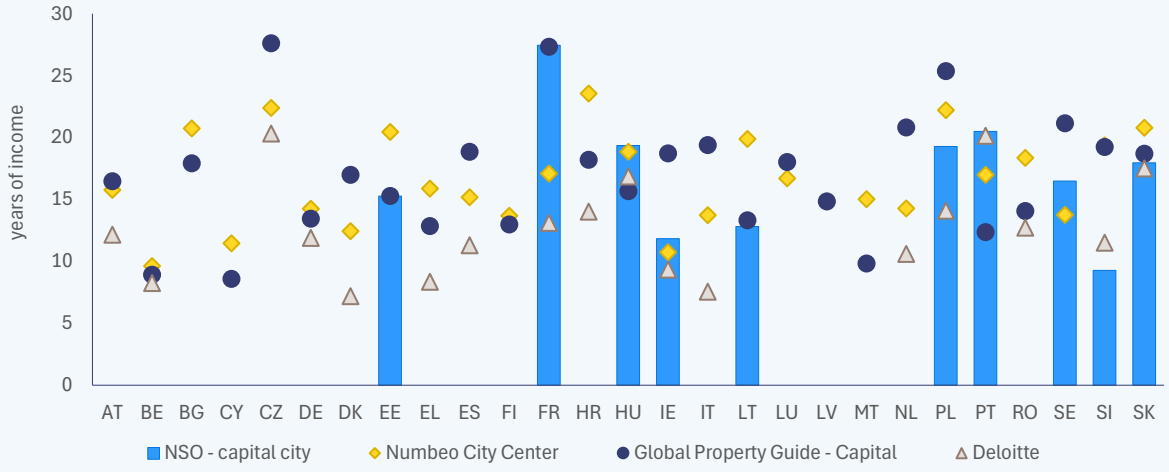
Graph B2.1: **House price levels (euros per 100 m2 over annual median household income), all countries, 2024, from different sources**



Source: Eurostat, National statistical institutes (NSOs), ECFIN own calculations., Numbeo. Retrieved January 2025, from https://www.numbeo.com/.

Notes: Data from the different sources is obtained in euro per m2 and then multiplied by 100 and divided by the annual household median income. Data from Numbeo corresponds to the average of the city centre and outside the city centre data. The data from the different national statistical offices was converted to 2024 by using the official house price indices when the data available was only available for a different period.

Graph B2.2: **House price levels (euros per 100 m2 over annual median household income), EU national capitals, 2024, from different sources**



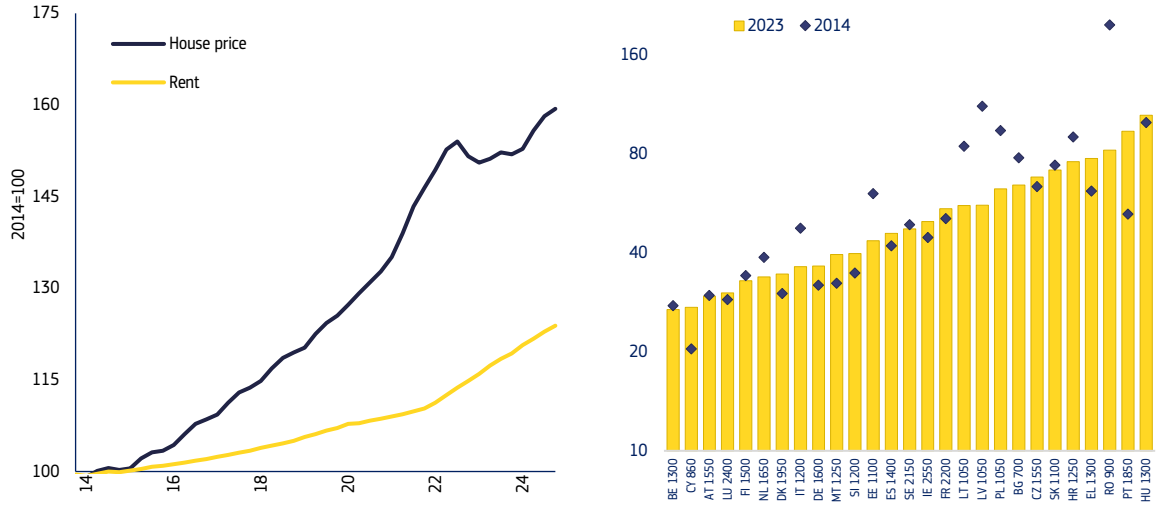
Source: Eurostat, National statistical institutes (NSOs), ECFIN own calculations., Deloitte (2024). *Property index: Overview of European residential markets* (13th ed.), Global Property Guide. (n.d.). Retrieved Mars 2025, from https://www.globalpropertyguide.com/, Numbeo (n.d.). Retrieved January 2025, from https://www.numbeo.com/.

Notes: Data from the different sources is obtained in euro per m2 and then multiplied by 100 and divided by the annual household median income. The income used corresponds to the country median. The data from the different national statistical offices was converted to 2024 by using the official house price indices when the data available was only available for a different period.

3.3. RENTAL PRICES

Rents for existing contracts have grown at a significantly slower pace than house prices while rent on new contracts has surged. Eurostat data show that nominal rents have increased significantly less than house prices over the past decade, suggesting that renting has become relatively less expensive and more affordable, as shown in Graph 12 (left). However, the standard rent index, which is part of the Harmonised Index of Consumer Prices (HICP), considers existing rents only, to the exclusion of new rental contracts. As is shown in section 7.5, a number of countries have rent indexation mechanisms that limit the increases in rent for existing contracts. However, few countries impose rules on new rental contracts. In addition, there may be other reasons why new rental contracts should be more expensive than pre-existing ones. Higher purchase prices may make it unattractive for new buy-to-let investors – whether institutional or otherwise – to invest, unless they are able to extract a corresponding rent. Landlords may be reticent to increase existing rents to market prices, at the risk of tenants moving, imposing cost to landlords. For these reasons, it can be expected that the rental indices are not reflective of the changes in rental prices for new contracts. This has distributional consequences for younger cohorts as young adults moving out of the family home are more likely to face higher rents.

Graph 12: **House prices and rental prices in the EU, indexed on 2014 (lhs); new rent in prime locations as a % of income, selected locations, 2014 and 2023 (rhs)**



Source: Eurostat and ECFIN own calculations.

Notes: Annual rent of a 2 bedrooms apartment in prime locations of EU capitals (Eurostat file prc_colc_rents) divided by the median family income. The family median income is defined as two times the median household equivalised (i.e. per person) income. Monthly rents in 2023 (the last available) are shown next to country labels.

New rental costs remain exceptionally high in many cities. Although there are no data for new rental contracts across countries, they do exist for prime locations in the EU. Graph 12 (right) represents the cost of renting a two-bedroom apartment as a share of median household income (defined as twice the median individual income), as a measure of rental affordability, in both 2014 and 2023. While there is no consistent change in this over time – with some cities becoming cheaper and others more expensive under these measures – there have been some strong increases in certain, already expensive, cities. Moreover, in terms of levels, new rental costs are very high in a number of cities. In 2023, they corresponded to over 50% of the median income of household of two people in half of these cities.[22]

[22] For example, according to France's National Institute of Statistics and Economic Studies in Paris, the average annual gross salary is approximately 54000 euros, which translates to about 4,500 euros monthly. After accounting for taxes and

3.4. IMPLICATIONS OF WORSENING HOUSING AFFORDABILITY

Worsening housing affordability has social and demographic implications. Housing is a households' main asset and a main source of wealth accumulation. In cross-country comparisons, lower home ownership is associated with high wealth inequality, even when income inequality is low.[23] High house prices may prevent households with lower income from becoming homeowners, with income inequality further fuelling wealth inequality due to lower home ownership rates.[24] Elevated house prices may strengthen the intergenerational persistence of homeownership, meaning that becoming homeowner may be more difficult for people whose parents were not already homeowners.[25] Certain measures, such as borrower-based macroprudential tools, which play an important role in supporting financial stability, may also influence the conditions under which buyers access credit, such as requiring larger down payments or collateral. Young adults are particularly affected by rising prices and are less likely to be able to own a home. [26] Housing unaffordability, especially if applies both to purchasing and renting, can prevent the unemployed or young adults from becoming economically independent and deter them from settling down and starting families. In many European countries, young adults are now staying longer in their parents' home.[27] Studies also show that rising house prices affect fertility intentions, with price increases raising the likelihood of homeowners having a child while reducing the fertility intentions of renters with children.[28] Unaffordable housing has also been found to be detrimental for mental health, especially for renters and young people.[29] Those spending a high share of income on housing also report significantly lower levels of life satisfaction.[30]

Worsening of housing affordability can have implications for labour mobility and economic growth. High house prices in urban areas can have implications for labour mobility, acting as a disincentive for workers from move to dynamic economic regions.[31] This can result in labour shortages in rapidly developing regions, hampering growth, innovation, and productivity. Certain professions – including key workers such as teachers, emergency workers, healthcare professionals and care staff – may be priced out of urban areas. Economic studies show that decreasing housing affordability has a negative effect on economic growth in large urban areas.[32] As a large share of economic growth comes from these areas, improving affordability could significantly benefit economic activity.

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contributions, the net monthly salary for a Parisian aged 25-44 is roughly 2500 euros. With average rent prices exceeding 30 euros per square meter, a modest 40 square meter apartment would cost around 1200 euros monthly. Consequently, this rent would consume nearly half of the average net salary, making it challenging for individuals in this age group to afford anything beyond a small studio if adhering to the state's housing cost guidelines.

[23] Causa, O., N. Woloszko and D. Leite (2019): Housing, wealth accumulation and wealth distribution: Evidence and stylized facts. OECD Economics Department Working Papers, No. 1588.

[24] Paz-Pardo, G., (2021), Homeownership and portfolio choice over the generations, ECB Working Paper Series N°2522

[25] Based on UK data: Blanden, J., *et al.*, (2023), Intergenerational home ownership, The Journal of Economic Inequality, Vol. 21.

[26] Frayne et al. (2022). Howard, A., (2023), Seven propositions about 'generation rent', Housing, Theory and Society, Vol. 42.

[27] Sompolska-Rzechuła, A., Kurdyś-Kujawska, A., (2022), Generation of Young Adults Living with Their Parents in European Union Countries, MDPI Special Issue: Social Sustainability under Uncertainty: The Reinvention of Families.

[28] Based on data from Australia: Atalay, K., *et al.*, (2021), Housing wealth, fertility intentions and fertility, Journal of Housing Economics, Vol. 54.

[29] Arundel, R., *et al.*, (2024): Housing unaffordability and mental health: dynamics across age and tenure. *International Journal of Housing Policy*, Vol. 24

[30] Acolin, A. and V. Reina (2022): Housing cost burden and life satisfaction. *Journal of Housing and the Built Environment*, Vol. 37, Issue 7.

[31] Studying the impact of housing privatization: Broulíková, H., *et al.*, (2020): Homeownership, mobility, and unemployment: Evidence from housing privatization. *Journal of Housing Economics*, Vol. 50 and Mikula, S. and J. Montag (2023): Does homeownership hinder labour market activity? Evidence from housing privatization and restitution. *Journal of Housing Economics*, Vol. 61.

[32] Based on US data: Anthony, J., (2022)? Housing Affordability and Economic Growth. *Housing Policy Debate*, Vol. 33.

4. HOW HIGH IS TOO HIGH? HOUSE PRICE VALUATION METHODS

House price growth can lead to destabilising macroeconomic effects when it is excessive, and muting growth. House price matter for both social and economic reasons. House price affordability was considered in Section 3 and has both social and economic consequences in terms of the effect it has on household choices. But house prices also matter in terms of the macroeconomic disruption that they can cause. Housing booms and contractions can have significant effects on the real economy, with the reversal of housing booms generally amplifying economic downturns. Housing booms can push indebtedness based on inflated asset prices, and amplifying economic downturns when they burst.[33] This destabilising effect was evident in the global financial crisis, when the interaction between the housing market and the financial system played a central role in macroeconomic outcomes for many countries. But even in the absence of booms and busts, house price imbalances are also found to have long-term effects, with house price overvaluations slowing economic growth in the long term.[34]

To evaluate whether house prices are excessively high, the Commission employs two benchmarks and a valuation model. The Commission uses two benchmarks and one valuation model to determine if house prices have grown too strongly. The benchmarks are based on long-term averages of the price-to-income and price-to-rent ratios. To estimate the valuation gaps, the ratios are compared to their long-term averages. These benchmarks assess whether house price growth is outpacing income growth to a degree that could render housing unaffordable, and they compare house prices to the user cost of housing.[35] These benchmarks are intuitive and widely used by central banks and international organisations to gauge the appropriateness or underlying risks of house price trends. Additionally, the Commission's valuation model utilises an econometric approach based on a cointegration analysis to determine whether house prices are overvalued or undervalued.[36] This model considers various drivers of house price trends, including income levels, cost factors, and demographics, and is tailored to each country. The valuation model does not aim to establish whether house prices represent fair value for consumers but rather examines how they align with fundamental economic drivers to assess the risk of a potential correction.

The EU's estimated average valuation gap is the average of three indicators, but these indicators can show considerable differences within countries The valuation gaps derived from price-to-income, price-to-rent and the regression valuation model are averaged to estimate a valuation gap. This, along with its components, is shown in Graph 13. The overall index can be compared to the ECB

[33] Albuquerque, B., E. Cerutti, Y. Kido and R. Varghese (2025): Not all Housing Cycles are Created Equal: Macroeconomic Consequences of Housing Booms. IMF Working Paper, No. WP/25/50

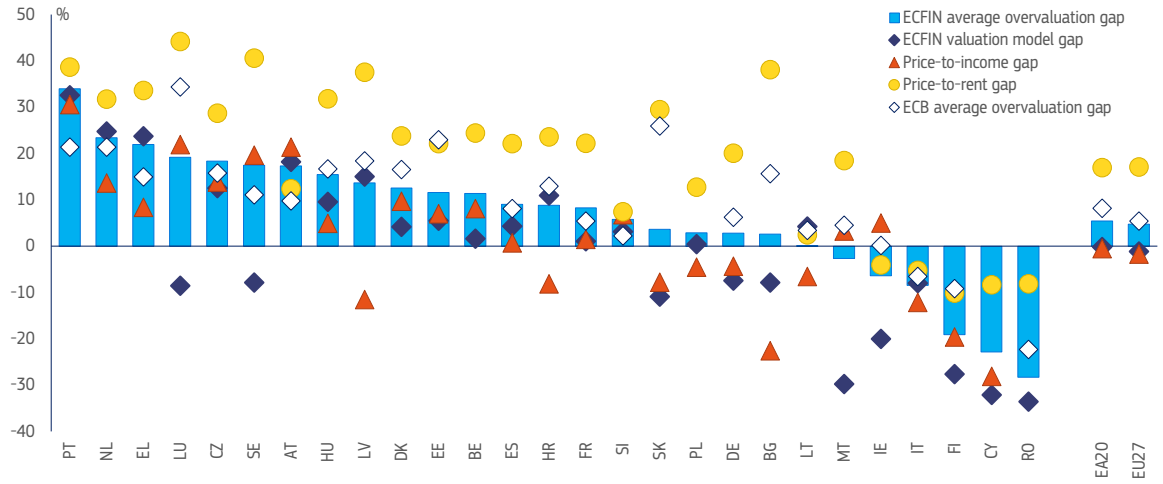
[34] Custas, J.C., M. Kukk, and N. Levenko (2022): Misalignments in house prices and economic growth in Europe. *Applied Economics*, Vol. 55, Issue 28, 3215-3237.

[35] The user cost of housing refers to the total annual cost associated with owning a property, taking into account both explicit and implicit costs. It typically includes mortgage interest payments, property taxes, maintenance and repair expenses, depreciation, and the opportunity cost of the capital invested in the property. Additionally, it can consider expected changes in the property's value, such as appreciation or depreciation. The user cost of housing helps homeowners and potential buyers evaluate the true cost of owning a home versus renting, and it influences housing market dynamics and investment decisions.

[36] Details of the original model are outlined in Philiponnet, N. and A. Turrini (2017): Assessing house price developments in the EU, European Economy – Discussion Papers, No. 048. The current approach features some modifications. Namely, Vector Error Correction Model estimated for a panel of all EU countries, using a system of six fundamental variables; the nominal house price, total population, housing stock, real disposable income per capita (household income expanded with GNI, instead of GNI that was originally used), real long-term interest (mortgage interest rates database expanded with government long-term interest rates instead of government long-term interest rates that were originally used) rate and the private expenditure deflator. These variables capture the fundamental drivers of house prices, that are outside the short or medium-term influence of policies and are not subject to the same boom and bust cycles as house prices. While non-filtered series are used in the estimation of coefficients, interest rates, income and the deflator are filtered when computing the fundamental price and the gap to avoid abrupt changes of the estimated gap.

estimated valuation gap, which is also estimated as an average valuation of different methods that are applied homogeneously across Member States. The two methods are broadly consistent. However, the different components that enter the Commission's estimates can be quite different for any given country. In a number of cases, the price-to-rent benchmark is an outlier, by being much higher than the other two components. In many cases, this reflects the shortcomings in the rent price data, outlined in section 3.1.2, which underestimate rental increases by covering only existing contracts. In some cases, the size of the indicator also reflects over-regulation in the rental market. This may be the case in countries such as Luxembourg or Sweden, where rental prices may be kept low but are associated with very limited supply of rental housing, which in turn fuels demand of home ownership, pushing up house prices.

Graph 13: **Estimates of over-valuation according to the Commission and ECB methodologies 2024**

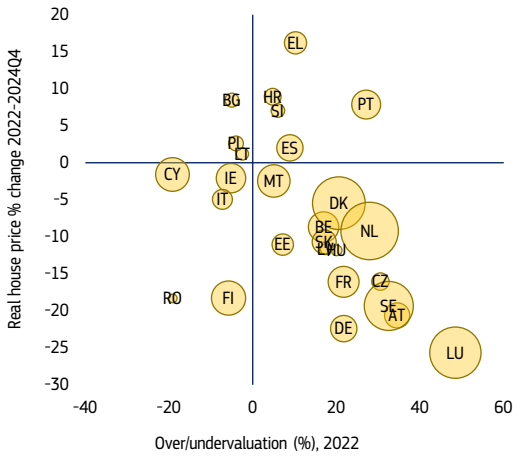


Source: Eurostat, ECB and ECFIN own calculations.

Notes: Except for the ECB overvaluation gap for EA20, EA20 and EU27 figures are weighted averages of country figures (HICP 2023 weights). ECFIN average overvaluation is the difference in percentage points between observed house prices and house prices justified by fundamentals and is computed as an average of three metrics (model based, price-to-income ratio and price-to-rent ratio). See Philiponnet and Turrini (2017).

House prices have recently declined most strongly in countries where they were most overvalued. Overvalued houses are not a guarantee that house prices will adjust down, and an adjustment may not happen if there is a structural gap between housing demand and supply. Graph 14 plots the change in real house prices over 2022-24 against the starting estimated overvaluation. The size of the circles represents household debt. It shows that the recent price reduction was most apparent in countries where house prices had been the most overvalued or where household debt was the highest. These include Luxembourg and Sweden where real house prices declined between 2022 and 2024 by 15-20%, but notable reductions also took place in Germany, France, Slovakia, Austria and Czechia, all of which were estimated to be overvalued at the start of the interest rate tightening cycle.

Graph 14: **Real house price change vs over/undervaluation in the EU countries**

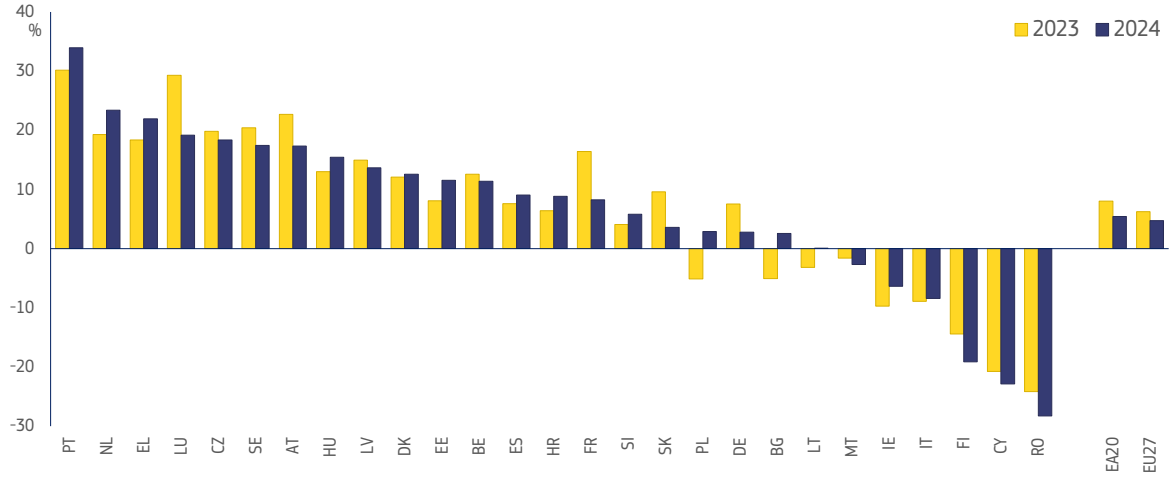


Source: Eurostat and ECFIN own calculations.

Notes: The size of the bubbles represents household debt in percentage of disposable income in 2022. Over/undervaluation is the difference in percentage points between observed house prices and house prices justified by fundamentals and is computed as an average of three metrics (model based, price-to-income ratio and price-to-rent ratio). See Philiponnet and Turrini (2017).

At the end of 2024, house prices remained overvalued in many EU countries despite recent declines of the valuation gaps. According to the most recently available data, the Commission estimates that the average overvaluation is the most substantial in Portugal, as can be seen in Graph 15. Prices are estimated to be overvalued by around 35% in Portugal and it is the only country where overvaluation is estimated to have significantly increased in 2024. House prices are estimated to be overvalued in range of 10 and 20% in Luxembourg, the Netherlands, Austria, Greece, Czechia, Sweden and Latvia, although the estimated overvaluation decreased in all these countries, except for the Netherlands, in 2024.

Graph 15: **Average overvaluation gap according to the Commission, 2023, 2024**



Source: ECFIN own calculations.

Notes: Over/undervaluation is the difference in percentage points between observed house prices and house prices justified by fundamentals and is computed as an average of three metrics (model based, price-to-income ratio and price-to-rent ratio). See Philiponnet and Turrini (2017).

National central banks are using a range of approaches in their surveillance of the housing market. In most EU countries, housing market surveillance is part of the financial stability mandate of central banks. These banks assess house prices using a range of approaches, in some cases adjusted to the specific needs of the Member State in question. Box 3 presents an overview of the approaches used within the European System of Central Banks (ESCB). Some central banks also perform surveys of market participants (homebuyers, real estate agents, financial analysts) to get an insight into expectations and sentiment, which are useful for evaluating potential overvaluation.

Box 3: **Housing valuation methods in ESCB**

The European System of Central Banks (ESCB) employs a diverse array of methods to evaluate housing markets across its member countries, reflecting the complexity and variation in housing market dynamics throughout Europe.

Price-to-Income / Price-to-Rent Ratio: Almost all National Central Banks (NCBs) utilise price-to-income (PTI) or price-to-rent (PTR) ratios as foundational metrics to assess housing valuations. These indicators help identify deviations from long-term averages or trends, although they are not always considered definitive measures of overvaluation. These ratios are often supplemented by alternative measures, such as price-to-construction cost ratios and the ratio of interest paid on new mortgages to disposable income, to provide a more nuanced understanding of housing market conditions.

ECM / Inverted demand models: About half of the NCBs apply econometric models, such as the Error Correction Model (ECM) or inverted demand approaches, which incorporate fundamental economic variables. These models consider factors such as real income per capita, real mortgage rates, housing stock, and population data. They may also include additional elements like real mortgage loans, building permits, construction costs, and fiscal variables. Often, these models are paired with secondary equations for residential investment to offer a comprehensive analysis of market dynamics.

PCA / Composite indicators: Some NCBs employ Principal Component Analysis (PCA) and composite indicators, which integrate various metrics such as price-to-income and price-to-rent ratios, house price inflation, price-to-construction cost ratios, and residential investment-to-GDP ratios. These composite indicators provide a multifaceted perspective on housing valuation, capturing the interplay of different economic factors.

Investment perspective: From an investor's point of view, the analysis of rental yields relative to government bond yields, along with the net present value (NPV) of rental profits, offers insights into the attractiveness of housing as an investment class. This approach helps gauge the potential returns on investment in the housing market compared to other asset classes.

Borrowing / Repayment capacity of households: Another critical approach involves assessing household borrowing and repayment capacities. This method evaluates attainable housing prices as functions of household income, mortgage annuity payments, mortgage rates, and tax regimes. These measures allow to better assess the sustainability of housing prices in relation to household economic conditions. These measures are also commonly used as measures of housing affordability that unlike common PTI consider other factors, most importantly mortgage interest rates.

Regional Data Analysis: The use of regional data is also crucial in understanding local market conditions. This includes variables such as housing stock per capita, real income per capita, population density, and GDP growth prospects. Regional analysis allows for a more tailored approach to evaluating housing markets, acknowledging the unique characteristics and challenges of different areas.

Other approaches used with no valuation assessment: In addition to the aforementioned methods, the NCBs also employ several approaches that do not directly assess valuation but provide valuable insights into housing market dynamics. These include Structural Vector Autoregression (SVAR) and Vector Error Correction Models (VECM), which analyse real house prices, rents, real GDP/income, construction costs, mortgage rates, and real mortgage loans. Quantile regressions and prices at risk offer future scenarios of price developments, while forecasting macro models, such as those derived from long-term equilibrium (EC) and cointegration between prices and mortgage credit, are used to predict broader market trends.

5. DRIVERS OF HOUSE PRICES IN THE EU

House prices are determined by the interaction of demand and supply factors, and understanding what underlies recent changes is important in determining the appropriate policy response. In the absence of other changes, increases in demand for housing drives up house prices, while increases in supply brings them down. This section looks at the factors that affect first the demand in section 5.1. and then the supply of housing in section 5.2, to provide an understanding of what has been driving house prices.

5.1. DEMAND FACTORS

The demand for housing is affected by a range of factors, some of which are structural and take time to adjust, and some of which can vary strongly in a short amount of time. Household incomes and demographic factors– such as population and household structure – are key drivers of demand over time. While they can change quickly for any household individually, at an aggregate level they usually take time to adjust and are therefore long-term drivers of house prices. They are covered in sections 5.1.1. and 5.1.2, respectively. The structure of the financial sector, and the way in which mortgage credit is made available, is a significant factor that translates income into demand, and can also be a mechanism whereby strong fluctuations in demand occur through changes in interest rates. This is covered in section 5.1.3. In recent years, housing demand has been strongly affected by sudden changes in housing and lifestyle preferences which usually evolve more slowly (see section 5.1.4) as well as in the ability to convert residential housing into short-term tourism rentals (see section 5.1.5). Section 5.1.6 considers the role of institutional investors in housing and section 5.1.7 the impact of climate changes on housing demand.

5.1.1. Household income and wealth

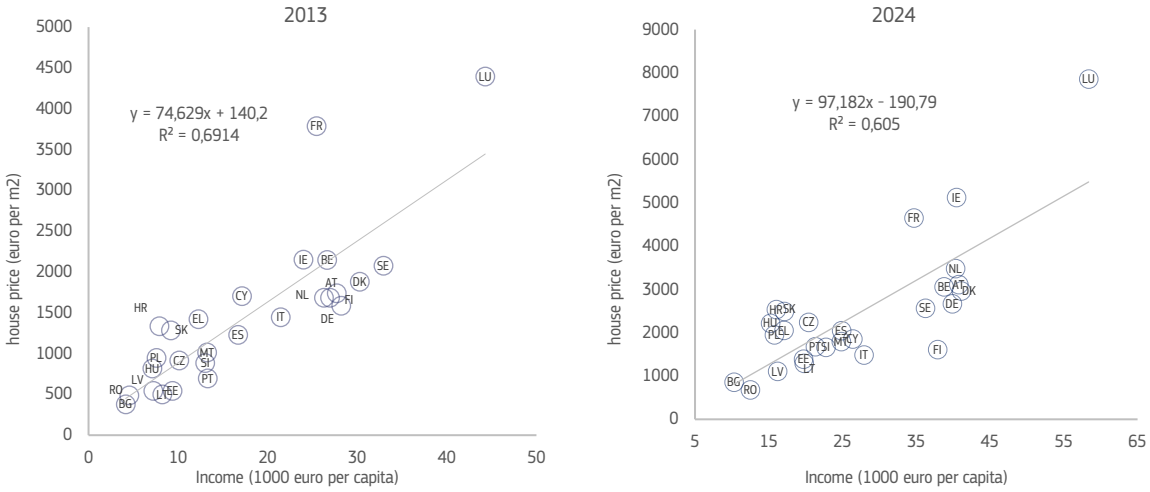
Household incomes are the primary driver of housing demand over time. The empirical evidence indicates that housing demand has a high income-elasticity. This means that as incomes increase, so does the demand for housing. [37] At an individual level, households make their housing purchase decisions based on their expectations of their long-term income; this typically does not change quickly even if there are sudden changes in income at any given time. At an aggregate level, however, current income levels, which fluctuate with overall economic conditions, play a significant role, driving the cyclicality of housing demand.

Across EU countries, house prices are correlated with income levels over time. As household income rises, the amount that households are willing to spend on housing increases; the available supply determines whether this results in them consuming more and better housing services, or whether it leads to increases in cost of land, and housing inflation. Graph 16 shows the relationship between the average income per capita (in euro) and nominal house prices per square metre, in 2013 and 2024. It indicates a close correlation between these two variables. However, despite this overall patter, the house price level in some countries is relatively low considering the average income – such as in Finland or Italy in 2023 – or relatively high – such as Ireland and Luxembourg. Graph 17 shows that there is also a relatively tight relationship between real income growth and real house price growth, which holds in a cross-country perspective, both in periods of housing market expansion (2000-2007, 2014-2022) and correction (2008-2013, 2022-2024). This relationship is partly due to the fact that higher incomes make potential homebuyers comfortably manage monthly payments. Comparing house prices to incomes contextualises house price index developments relative to households' nominal per-capita gross disposable income (see Sect. 1). An increased house price-to-income ratio may result from an inadequate supply response,

[37] Cheshire, P. and S. Sheppard (1998). Estimating the Demand for Housing, Land, and Neighbourhood Characteristics. *Oxford Bulletin of Economics and Statistics*, Vol. 60, Issue 3, 357-382.

exerting pressure on housing affordability over time, [38] or it may indicate unsustainable price dynamics that carry risks of disruption, should they correct.

Graph 16: **House price per m2 vs household income per capita, 2013 and 2024**



Source: Eurostat, ECFIN own calculations.

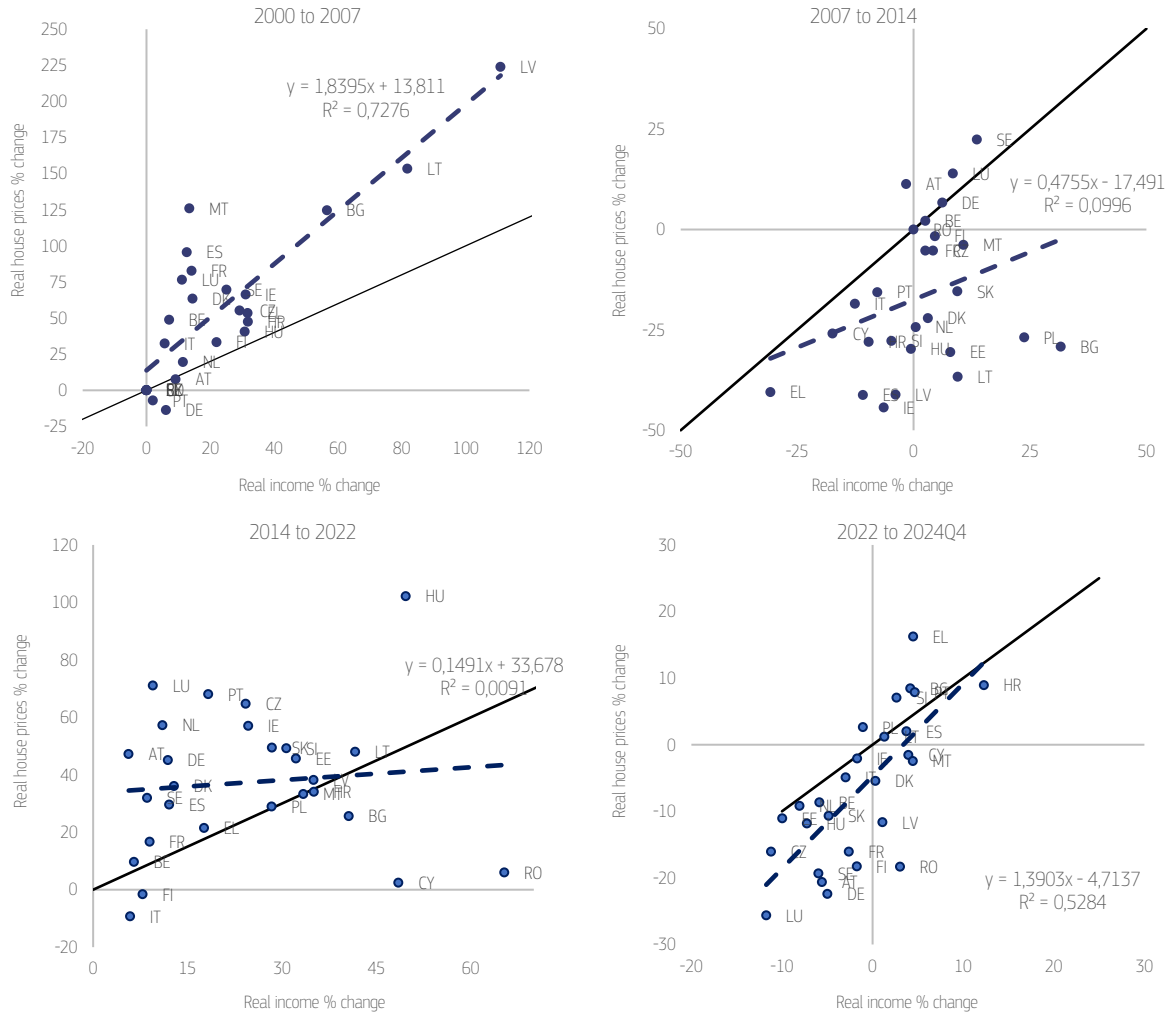
Notes: The dashed line corresponds to the simple regression. See Box 2 for discussion of house prices. Income refers to adjustable disposable income.

Besides incomes, household wealth also plays a significant role in housing demand. While income influences a household's ability to make mortgage payments, accumulated wealth is essential for affording down payments or enabling cash purchases. Wealthier households often have the economic capacity to participate in the housing market as investors, acquiring properties for rental income or capital appreciation. Consequently, while household wealth is a determinant of housing demand, housing itself increasingly contributes to wealth accumulation. Areas with higher concentrations of household wealth may see heightened demand for real estate, particularly for high-end housing options. Investment in housing in areas with attractive amenities can draw wealth from other regions, leading to decreased affordability for residents in attractive areas. This trend has been accompanied by a rise in buy-to-let options in some EU countries, which has implications for the intergenerational wealth distribution.[39]

[38] Frayne et al. (2022).

[39] Hochstenbach, C. and M. B. Aalbers (2023): The uncoupling of house prices and mortgage debt: towards wealth-driven housing market dynamics. *International Journal of Housing Policy*, Vol. 24, Issue 4, 642–670.

Graph 17: **Real house prices change vs real household income change, 2000-2007, 2007-2014, 2014-2022 and 2022 to 2024Q4**



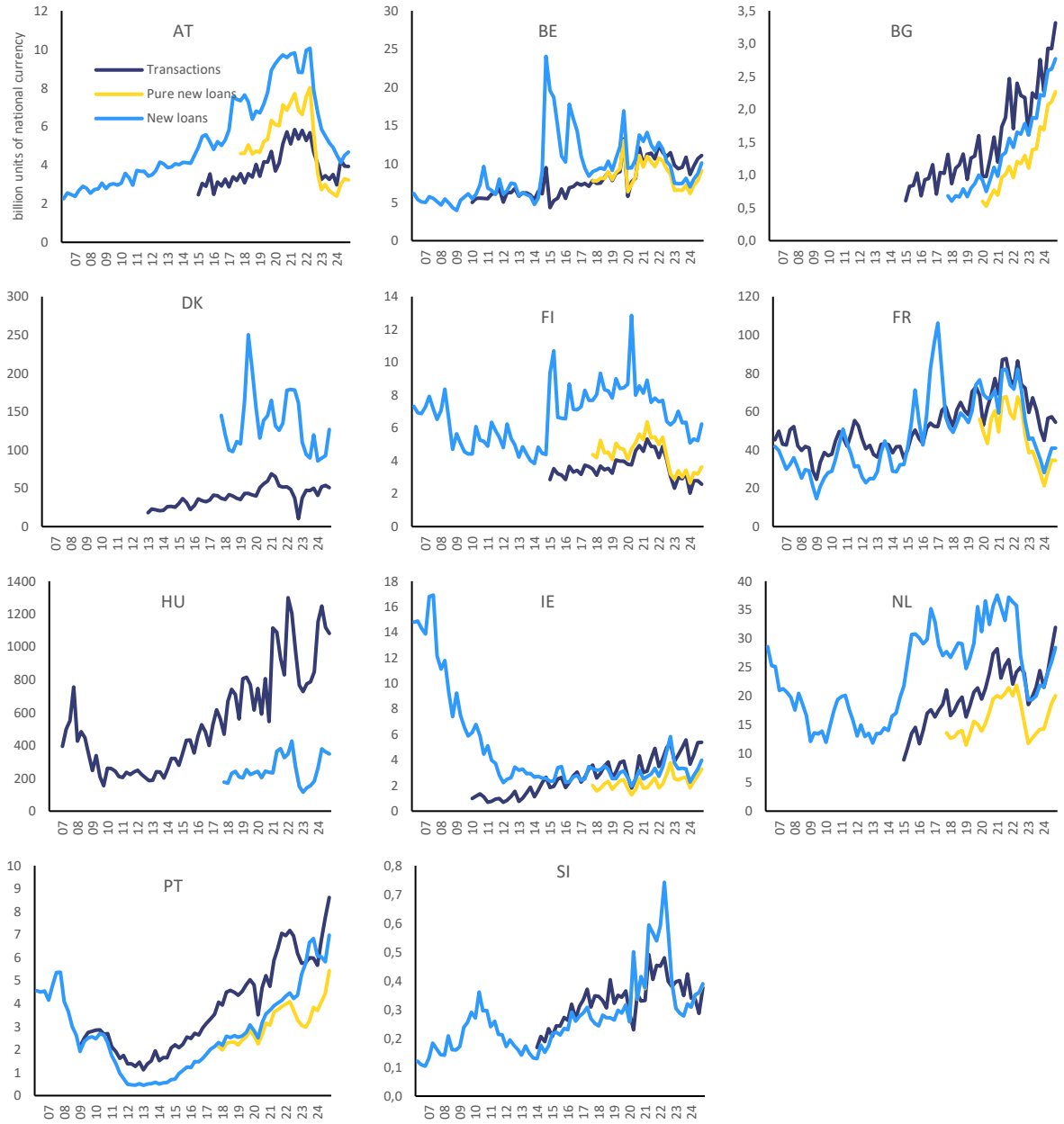
Source: Eurostat, ECFIN own calculations.

Notes: The solid line corresponds to the by-sector in which the change of real house prices is equal to the change of real household income. The dashed line corresponds to the simple regression.

Over the last decade, there has been a notable decoupling between the previously stronger relationship between mortgage debt and house prices. Mortgage credit still represents the main source of funding for house purchases across EU countries, although with notable cross-country differences (see Box 1). Over the last decade, mortgage credit growth has been weaker than and has lagged house price growth, in contrast to a decade before. This trend indicates that other financing methods, principally personal funds, but also seller financing (where payments are made to the seller over time rather than as a lump sum), private loans, shared equity (involving people from different households), and crowdfunding (gathering funds from many people to buy a property), have become more prominent. However, directly comparing house price growth with mortgage credit growth only offers a broad perspective on the relationship between loans and prices, as it fails to consider potential changes in the number of mortgage loans issued and the overall volume of housing transactions. As an alternative, Graph 18 compares the total value of housing transactions with the total value of mortgage credit provided, excluding renegotiations, in eleven EU countries. The graph shows a strong correlation between transactions and mortgage loans but also highlights significant national differences. In countries with higher incomes and household debt, the amount of new loans relative to housing transactions has decreased in recent years compared to the past. Graph 19 illustrates the proportion of housing transactions financed by mortgage credit, showing low values of around 50% for Portugal and Bulgaria,

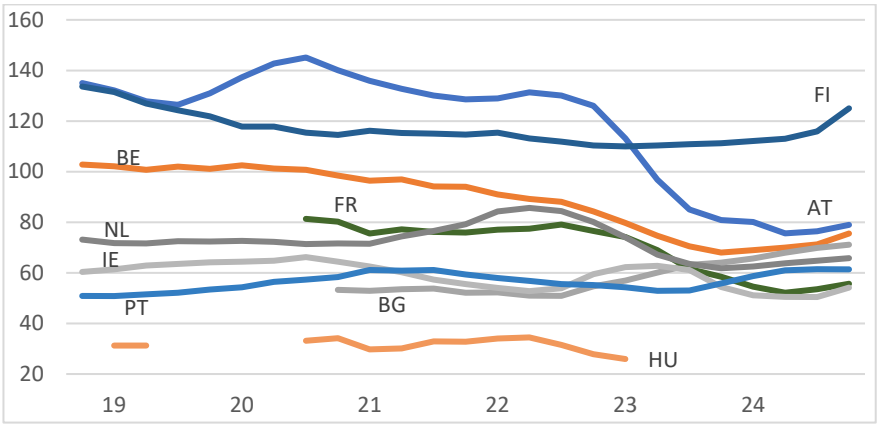
possibly due to cross-border property purchases in tourist areas. Conversely, Austria and Finland had values exceeding 100% before the 2020 interest rate hikes, indicating that some loans may have been used for overseas property purchases or for consumption or renovations. Notably, this ratio declined in most countries around 2022, reflecting a shift towards alternative funding sources as mortgage rates rose significantly.

Graph 18: **Housing transaction, new loans for house purchase and pure new loans for house purchase, selected EU countries, 2006 - 2024**



Source: Eurostat, ECB and ECFIN own calculations.

Graph 19: **Share of housing transactions (in value) financed with bank credit, selected EU countries, 2018 - 2024**



Source: Eurostat, ECB and ECFIN own calculations.

5.1.2. Demography: urbanisation, population growth, migration, and family structure

Demographic factors are important drivers of housing demand over the long term and typically do not change sharply in the short term. Increases or reductions in the number of households affect the number of housing units needed and have an impact on housing demand. Changes in the level of urbanisation or the location of jobs also drive demand for housing and can result in a mismatch between the location of the (existing) housing stock, and the location where housing is demanded. The relationship between housing affordability and demographic factors is arguably endogenous over time – with household formation and location decisions driving housing demand, particularly in the short term, but also being in part driven by supply over the longer term. Over the short term, it is unusual to have strong changes in demographics, although wars or sudden migration waves can be an exception to this.

The urbanisation process in the EU has been characterised by a steady long-term migration of populations from rural to urban areas, driven mainly by employment opportunities. The share of population living in urban areas has increased from less than 70%[40] of the population in 1980 to slightly below 80% in 2024, as shown in Graph 20, and it is expected to reach 84% by 2050[41]. This demographic shift is apparent in most EU countries and has significantly impacted housing demand. Cities have expanded and become more densely populated as the demand for urban housing has surged, straining existing urban infrastructures. Given that housing supply is typically contained in urban areas, this rise in demand results in rising property prices and rents. Urban areas face pressure to develop sustainable housing solutions that can accommodate growing populations while balancing environmental impacts and maintaining liveability. These pressures result in a growing dispersion in housing costs within countries.

The demand for housing is affected by migration, which is most closely linked to rising house prices in urban areas. In the short term, migration stands out as a pivotal factor driving up property values, more than natural population growth (see Graph 21). Migrants tend to disproportionately settle in urban centres such as capital cities, attracted by better economic opportunities. Inward migration can exacerbate existing housing shortages and place additional strain on urban infrastructure and services. Most empirical studies conclude that immigration leads to higher house prices and rents, and lower housing affordability at local level.[42] However, as immigration can result in outflows of previous

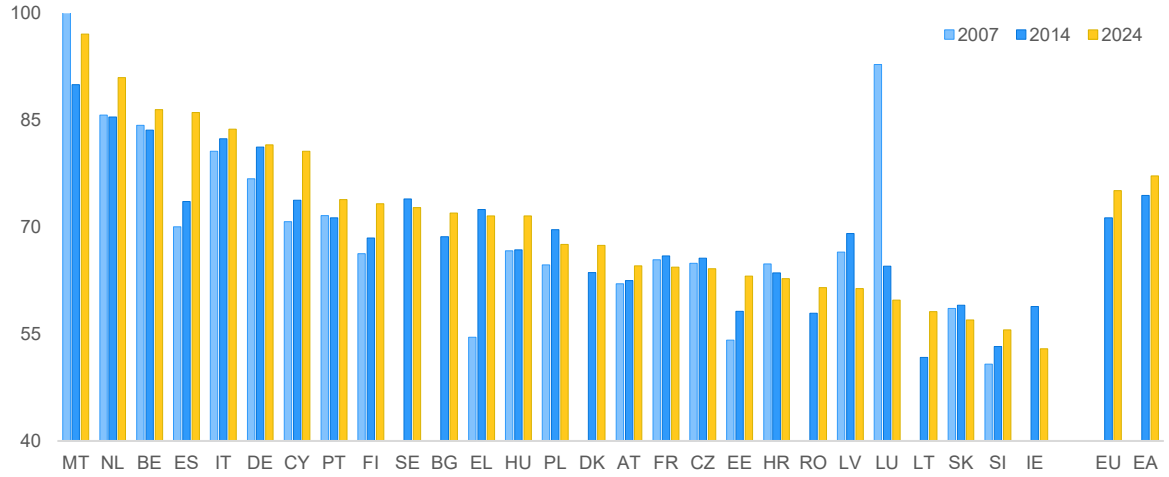
[40] World Bank (2025): Urban population (% of total population) – European Union. World Development Indicators.

[41] United Nations (2024): World Urbanization Prospects: The 2024 Revision. Department of Economic and Social Affairs, Population Division.

[42] Cochrane, W. and J. Poot (2021): Effects of Immigration on Local Housing Markets. In: Kourtit, K., B. Newbold, P. Nijkamp and M. Partridge (eds): *The Economic Geography of Cross-Border Migration*. Footprints of Regional Science. Springer, Cambridge.

inhabitants,[43] the effect on house prices at a local level may be negative in some cases.[44] Globally, however, immigration typically increases house prices, particularly for apartments.[45] Empirical evidence supports this e.g. is the case of the recent immigration wave from Ukraine towards Poland.[46]

Graph 20: **Degree of urbanisation in the EU countries, 2007, 2014, 2024**



Source: Eurostat

Notes: Data is subject to significant breaks in time series that were minimised by taking the most recent period and extending the data backwards while avoiding the changes affected by the breaks.

Changes in family structure have significantly influenced housing demand across the EU countries over time. Traditional family models evolved to include an increase in single-person households, cohabiting couples, and shared living arrangements. These shifts have fuelled demand for smaller, more flexible living spaces that can accommodate various household compositions. As illustrated in Graph 20, most EU countries have seen an increase in the number of households over the last 15 years, in many cases of over 20%. The prevalence of single-person households has heightened the need for compact apartments in urban areas, intensifying competition in this segment of the housing market. Concurrently, the rising popularity of shared living, often driven by the inaccessibility of affordable housing for young people moving out of their parents' homes, has increased demand for larger housing units with adaptable spaces. Increased life expectancy and the move away from multi-generational living has also resulted in large housing units being occupied by elderly homeowners, unwilling or unable to move into smaller accommodation. The evolution in family dynamics challenges housing markets to provide diverse options that cater to the changing needs of the population.

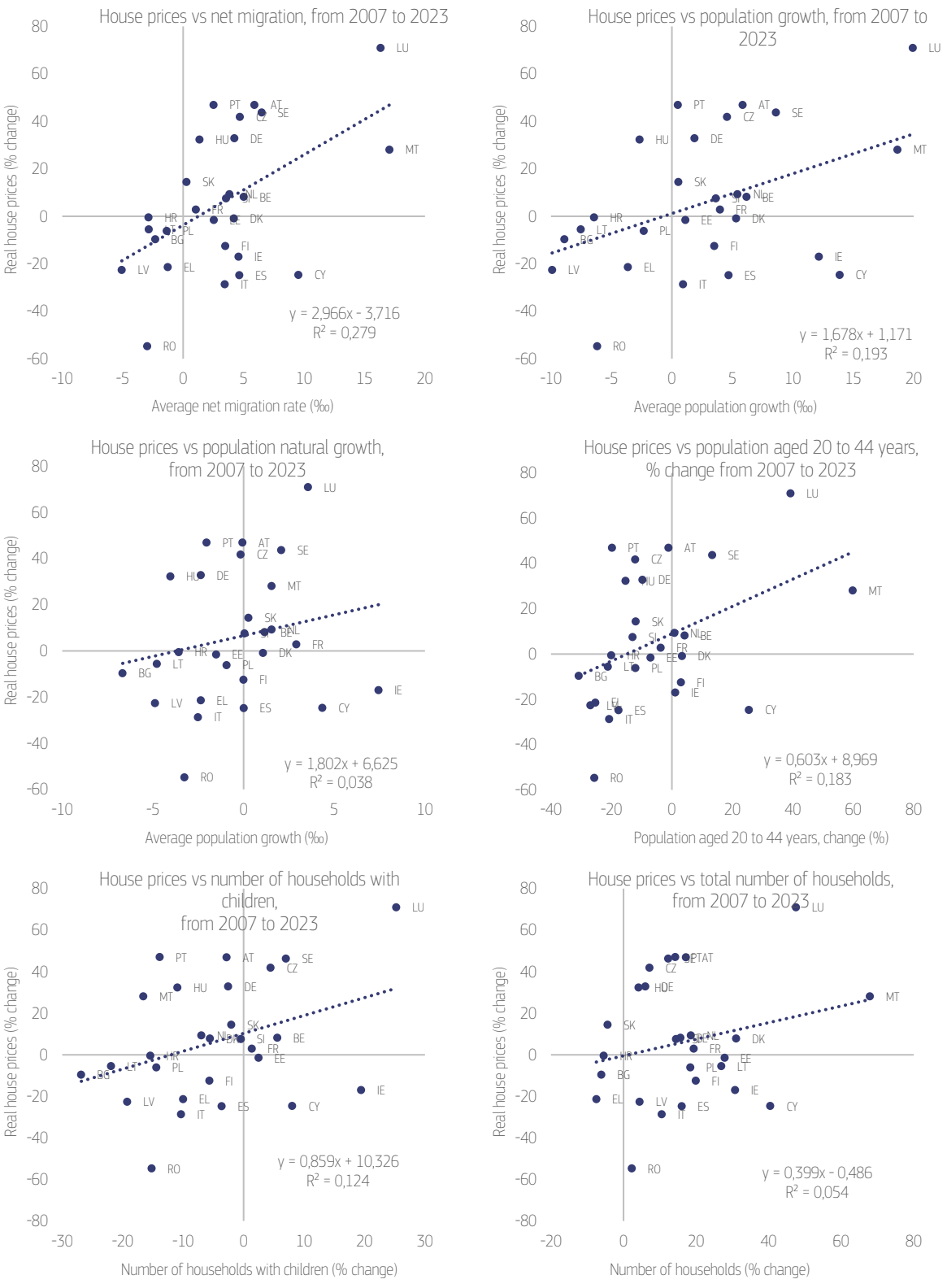
[43] Sanchis-Guarner, R. (2023). Decomposing the impact of immigration on house prices, *Regional Science and Urban Economics*, Vol. 100, 103893.

[44] Sá F. (2015): Immigration and house prices in the UK. *Economic Journal*, Vol. 125, No. 587, 1393-1424.

[45] Unal, U., B. Hayo and I. Erol (2024): The Effect of Immigration on Housing Prices: Evidence from 382 German Districts. *The Journal of Real Estate Finance and Economics*.

[46] Gluszak, M. and R. Trojanek (2024): War in Ukraine, the refugee crisis, and the Polish housing market. *Housing Studies*, Vol. 40. Issue 5, 1043-1065.

Graph 21: **House prices vs selected population indicators in the EU countries, 2007-2023**



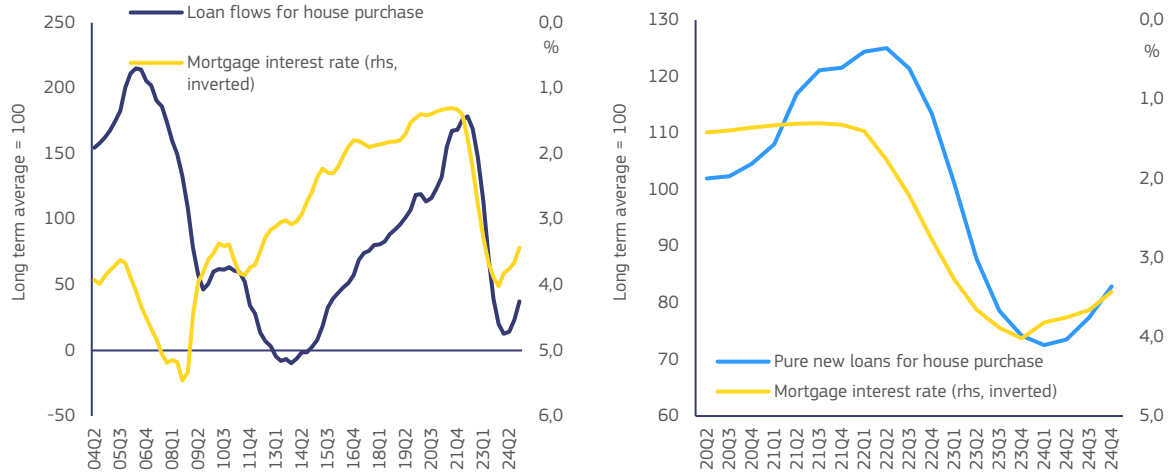
Source: Eurostat, ECFIN own calculations.

Notes: First observation on HP indices are for Estonia 2004, Cyprus 2002, Poland 2005, Romania 2008, Slovenia 2003, Slovakia 2002.

5.1.3. Mortgage interest rates and availability of credit

Mortgage interest rates have short- and long-terms effects on demand for housing. Mortgage interest rates determine the size of the loan that a given income can service, as discussed in section 3.2, and are therefore an important component in the demand for housing. Over the short term, increases in mortgage rates result in smaller possible loans, reducing demand, and possibly resulting in a sharp decrease in transactions, driving house prices down. The relationship between mortgage interest rates and loan flows is shown in Graph 22. Structural differences in financial markets across countries can determine the long-term interest rates available to borrowers which can vary across countries, even within a monetary union, and these can influence house price levels in a more permanent way.

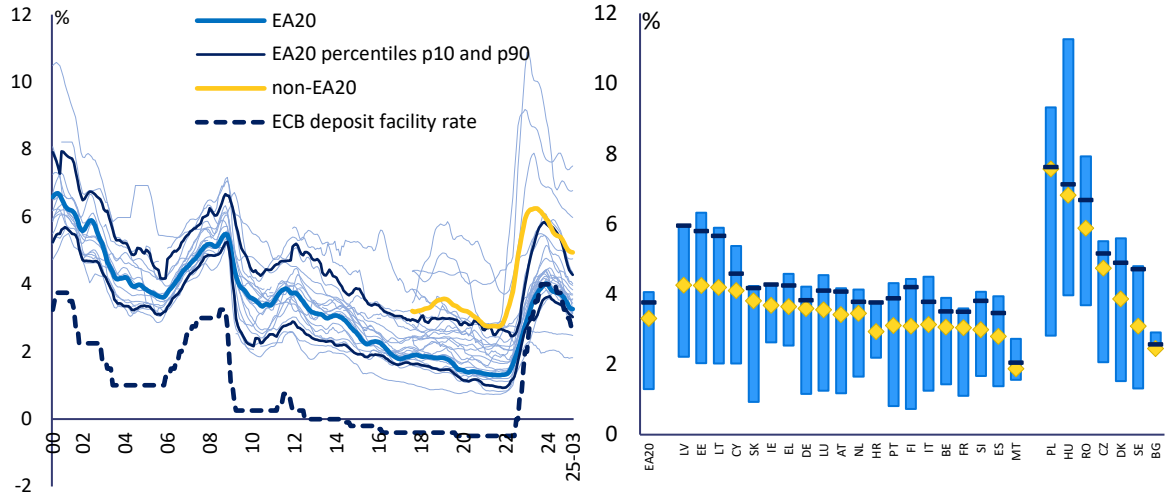
Graph 22: **Mortgage loans vs. mortgage interest rate (%), the euro area**



Source: ECB, ECFIN own calculations.

Although mortgage interest rates are closely related to financial conditions, there are differences in levels across countries, even within the euro areas. In the euro area overall, average interest rates on loans to households for house purchase increased from a minimum of 1.3% in June 2021 to a maximum of 4.1% in November 2023, before dropping to the current value (as of March 2025) of 3.3%, see Graph 23. While the overall pattern is similar, there are clear differences in levels, even among euro area countries, with Slovakia and Croatia showing increases over the last year. Since the peak in late 2023, significant decreases occurred particularly among non-euro area countries where interest rates had risen sharply. In Poland and Hungary, there were very strong increases in interest rates until 2022/23, which reached over 9% and 11% respectively, and despite subsequent falls they remain very high. In Malta and Bulgaria, mortgage interest rates have been particularly stable and at low levels.

Graph 23: **Average interest rate on new loans for house purchase (%), in the EU and the EU countries, 2000 to Feb 2025**

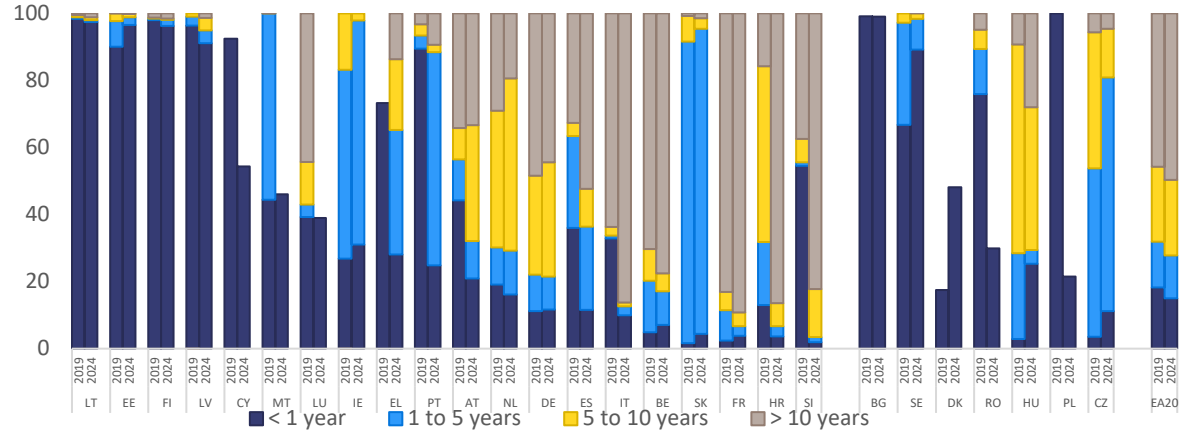


Source: ECB, ECFIN own calculations.

Notes: Percentiles are calculated only for EA20 because for non-EA, data is only available since 2017-07.

For countries with large shares of variable rate mortgage loans, the increase in interest rates added to the pressure on indebted households. The extent and duration for which mortgage interest rates are fixed differ strongly across countries and has varied over time. Within the euro area, variable interest rate-based mortgages dominate in the Baltics and Finland, as shown in Graph 24. Over the last five years, a significant decline in the share of variable rates has occurred in Cyprus, Greece and Portugal, though the length of any rate fixation remains relatively short. Among non-euro area countries, the share of new loans based on a variable interest rate is high in Bulgaria (where they are used almost exclusively), Sweden and Denmark. In general, variable rates result in a much faster pass through of interest rates to households, putting pressure on the finances of indebted household when interest rates increase. However, housing loans based on the fixed interest rate have various periods of fixation, and eventually interest rates changes will also affect mortgage payments. Long periods of fixation can reduce risks to households, as even if there is a substantial increase interest payments when the fixed period ends, the value to the loan is likely to have fallen as a share of the household's income due to income growth and repayments over time.

Graph 24: **Shares of new mortgages by interest rate fixation period the EU countries, 2019-2024**



Source: ECB, ECFIN own calculations.

Notes: For Malta, 2024 refers to the 12 months ending in October 2024.

5.1.4. Changes in housing preferences and working habits

The COVID-19 pandemic accelerated the trend towards teleworking, with a lasting impact on both the labour market and on housing preferences. Since the pandemic, working from home has become a widespread practice. As a result, workers have been re-evaluating their housing needs, with many seeking larger properties located farther away from city centres to accommodate a dedicated home office space. For example, in a UK survey of the working-age population residing in the private housing sector run in 2021[47], new teleworkers who intended to continue working from home, accounting for approximately one-fifth of the working-age population, exhibited a higher intention to move than the rest of the sample. These teleworkers placed a greater value on a high-quality home office and were willing to reside farther away from the centre. Teleworking is mainly feasible for office workers.[48] Some studies have shown that teleworking incentivises workers in high-productivity (and high property price) cities to move to lower-productivity cities, where property is more affordable,[49] which may affect relative house prices across cities. Working from home seems to have also contributed to decline in the valuation of office buildings, and to increases of office vacancy rates and decreases in office construction.[50] Working from home is usually conditioned on the availability of high-speed broadband, which becomes another local amenity with potential to affect local house prices.[51]

5.1.5. Tourism and short-term rentals

The rise of short-term rentals in tourism areas is linked with increasing prices and rents. While tourism activity has been on the rise in Europe for several decades, the expansion of short-term rentals in the last decade strengthened the link between tourism and the housing market. The expansion of home-sharing platforms has disrupted the traditional housing market by blurring the lines between short-term and long-term rentals. In some areas, this has contributed to a supply contraction in the long-term rental market, as traditional long-term housing suppliers reallocate their properties to the short-term market for higher profits,[52] and increased demand for housing for investment purposes. Short-term rentals may also have an indirect demand effect by generating income and local economic activity, which can increase demand for space and lead to higher house prices and rents.[53] There is growing empirical evidence suggesting that increase in tourism in general, and the increase of home-sharing platforms in particular, have contributed to a rise in rents and housing prices in some prime location such as historic centres of cities.[54] Targeted and well balanced policy measures should be aimed mainly at the affected prime

[47] Schulz, R., V. Watson and M. Wersing (2023): Teleworking and housing demand. *Regional Science and Urban Economics*, Vol. 101, 103915.

[48] Gokan T., S. Kichko, J. Matheson and J. F. Thisse (2022): How the rise of teleworking will reshape labour markets and cities. CEPR Discussion Paper, No. 17672.

[49] Brueckner J. and S. Sayantani (2022): Intercity impacts of work-from-home with both remote and non-remote workers. CESifo Working Paper, No. 9793

[50] Bergeaud, A., J. B. Eyméoud, T. Garcia and D. Henricot (2023): Working from home and corporate real estate. *Regional Science and Urban Economics*, Vol. 99, 103878.

[51] Fackler, Y.A., O. Falck, S. Krause and T. Fackler (2024): The Value of Connectivity: High-Speed Broadband Internet and Real Estate Prices. CESifo Working Paper Series, No. 11595.

[52] Garcia-López, M.A., J. Jofre-Monseny, R. Martínez-Mazza and M. Segú (2020): Do short-term rental platforms affect housing markets? Evidence from Airbnb in Barcelona. *Journal of Urban Economics*, Vol. 119, 103278. Barron, K., E. Kung and D. Proserpio (2021): The effect of home-sharing on house prices and rents: Evidence from Airbnb. *Marketing Science*, Vol. 40, Issue 1, 23-47.

[53] Sheppard, S. and A. Udell (2016): Do Airbnb properties affect house prices. Williams College Department of Economics Working Papers, 3(1), 43.

[54] Franco, S.F. and C. D. Santos (2021): The impact of Airbnb on residential property values and rents: Evidence from Portugal. *Regional Science and Urban Economics*, Vol. 88, 103667. Reichle, P., J. Fidrmuc, and F. Reck (2023): The sharing economy and housing markets in selected European cities. *Journal of Housing Economics*, Vol. 60, 101914. Anastasiou, D., P. Kapopoulos and K. M. Zekente (2024): Housing Affordability, Tourism Activity and Income Inequality: Friends or Foes? *Open Economies Review*. Mikulić J., M. Vizek, N. Stojčić, J. E. Payne, A. Č. Časni, and T. Barbić (2021): The effect of tourism activity

locations. At a national level, there is evidence that Portugal is the EU country where tourism has had the strongest impact on house prices.[55] In large cities (Berlin, Barcelona, and Amsterdam), the short-term rentals are often related to an influx of investors and are linked to a shortage of affordable housing options. Furthermore, the nature of these housing investments can create a volatile market, where prices are driven by expectations of future gains rather than the current fundamental value of the properties. Some Member States, such as Ireland and Spain, and cities, such as Berlin and Barcelona, have introduced measures to curb investment, including rent controls and taxes on vacant properties. [56]

5.1.6. Institutional investment demand

In some urban areas, a part of the housing stock is owned by companies and the long period of low interest rates contributed to increase in demand from institutional investors. In many urban areas part of the housing stock is owned by companies rather than individuals and is classified as commercial real estate, as shown in Graph 25. These assets are typically managed with a focus on maximising rental yields and property value appreciation. Corporate ownership can lead to professionalised property management, potentially enhancing the quality of maintenance and tenant services. However, it can also contribute to rising rental prices and reduced housing affordability, as profit-driven strategies may prioritise high-income tenants. The low-interest rate environment boosted housing demand from institutional investors in search for yield, while it allowed them to benefit from low funding costs. Empirical evidence[57] suggest that institutional investors, such as insurance companies and pension funds, have played a role in the rising real estate prices over the past decade, particularly in global capitals. Insurance companies are notably invested in real estate in countries such as Germany, France, the Netherlands, and Belgium, while pension funds have significant exposure in Sweden, Germany, Portugal, and the Netherlands. These institutions often channel their investments through Real Estate Investment Trusts (REITs). However, the impact of these investments on property prices is complex and multifaceted. The effect depends on whether these institutional investors are acquiring existing properties or financing new construction. If the focus is on purchasing existing buildings, the outcome also hinges on the identity of the seller and their subsequent use of the proceeds. Additionally, there is the critical issue of causality to consider as increased investor activity may be the result of anticipated price increases.

Institutional investors may add to the house price cycles, driving booms and accentuating downturns. There has been an increase in the presence of institutional investors – which is sometimes referred to as financialisation of housing[58] – in the major European cities, which might have contributed to house price growth.[59] Overall, data from the ECB shows that the proportion of non-resident investors in the EU's housing market increased from 10.4% in 2010 to 14.1% in 2020, coinciding with a reduction

on housing affordability. *Annal of Tourism Research*, Vol. 90, 103264. Horn, K. and M. Merante (2017): Is home sharing driving up rents? Evidence from Airbnb in Boston. *Journal of Housing Economics*, No. *38*, 14-24. Crowe, A. (2021): Short-Term Rentals and the Residential Housing System: Lessons from Berlin. *Critical Housing Analysis*, Vol. 8, Issue 1, 129-140. Kerbler, B. and P. Obrč (2021): The impact of Airbnb on Long-Term Rental Housing: The Case of Ljubljana. *Critical Housing Analysis*, Vol. 8, Issue 1, 150-158.

[55] Cró, S., & Martins, A. M. (2023). Tourism activity affects house price dynamics? Evidence for countries dependent on tourism. *Current Issues in Tourism*, Vol. 27, Issue 9, 1362–1380.

[56] Duso, T., C. Michelsen, M. Schaefer and K.D. Tran (2024): Airbnb and rental markets: Evidence from Berlin. *Regional Science and Urban Economics*, Vol. 106, 104007.

[57] Banti, C. and K. Phylaktis (2025): Are institutional investors the culprit of rising global house prices? *Real Estate Economics*, Vol. 53, Issue 2, 210-256.

[58] Gabor, D. and S. Kohl (2024): "My home is an asset class": The financialization of housing in Europe. https://hdl.handle.net/21.11116/0000-0009-E232-F.

[59] Lima, V., R. Hearne and M. P. Murphy (2022): Housing financialisation and the creation of homelessness in Ireland. *Housing Studies*, Vol. 38, Issue 9, 1695–1718. Saaristo, S. M. And R. Silva (2023): Struggles against financialisation of housing in Lisbon – the case of habita, *Housing Studies*, Vol. 39, Issue 6, 1–28. Guironnet, A., P. H. Bono and N. Kireche (2023): The French touch to the financialisation of housing. Institutional investment into the Paris city-region (2008–2021). *Housing Studies*, Vol. 39, Issue 12, 2985–3006.

in home ownership.[60] The presence of institutional investors seems to weaken, probably least temporarily, the link between house price growth and local economic fundamentals and strengthens the sensitivity of the housing market to monetary policy and financial market developments.[61] This can contribute to the presence of periods of high house price growth, and accentuate downturns.

Graph 25: **Residential and commercial real estate delimitation**

Source: Eurostat.

5.1.7. Climate impact

Climate change is increasingly impacting real estate markets by integrating climate-related risks into property values. The potential impact of climate change on real estate prices stems from the various risks and uncertainties it introduces. A key concern is the physical risk from climate events like floods, wildfires, and rising sea levels, which can cause direct damage to properties and reduce their market value.[62] This change in market value reflects the capitalisation of climate risks into real estate prices, influenced by both actual exposure and the perceived likelihood of future events. Despite policy efforts over the last decade to address the environmental impacts of housing, changes in local ecosystems and the increased risk of natural disasters can negatively affect housing demand in vulnerable areas. For example, flood risks have long been addressed in municipal urban plans and are now standard information during housing transactions. Property owners in these areas also face higher operating costs due to increased need for climate-resilient infrastructure (e.g., sea walls, cooling systems) and higher utility costs. These factors can further reduce net returns and property attractiveness. Empirical evidence shows that such risks adversely impact house prices, including in EU countries. [63] Other direct climate-change-related

[60] The proportion of EU households that own their homes has decreased from 71.4% in 2010 to 69.4% in 2020, while the proportion of households that rent their homes has increased from 28.6% to 30.6% over the same period, which is a reversal of trend of previous decades. This shift towards renting has been driven by the increasing unaffordability of housing, particularly in urban areas.

[61] Bandoni, E., G. De Nora, M. Giuzio, E. Ryan and M. Storz (2025): Institutional investors and house prices. ECB Working Paper, No. 3026.

[62] Contat, J., C. Hopkins, L. Mejia and M. Suandi (2024): When climate meets real estate: A survey of the Literature. *Real Estate Economics*, Vol. 52, 618–659.

[63] Bosker, G., H. Garretsen, G. Marlet and C. van Woerkens (2019): Nether Lands: Evidence on the Price and Perception of Rare Natural Disasters. *Journal of the European Economic Association*, Vol. 17, Issue 2, 413–453. Menéndez, P., M. J.

risk include land subsidence, primarily affect coastal regions and are often linked to water management practices, as seen in places like the Netherlands.[64] However, there are also a transition risks. As economies move toward decarbonisation and new regulations are introduced, properties that are not energy efficient or lack climate resilience may lose value. Conversely, properties that are upgraded for energy efficiency or located in areas with robust climate adaptation measures may see increased demand and higher values.[65] Rising insurance costs and, in some cases, the withdrawal of insurance coverage in high-risk areas are making it more expensive or even impossible to protect and finance certain properties.

5.2. SUPPLY FACTORS

Over the last decade, the supply of new homes has failed to keep up with demand. The increased gap between supply and demand of housing over the last decade, reflects a slowdown in the provision of new housing. A range of obstacles has hindered the construction of new housing units. [66] This section provides an overview of how the supply of housing has evolved in recent years, and factors that affect it. Section 5.2.1 gives an overview of the housing stock in different countries and looks at how housing construction has evolved. Section 5.2.2 looks at the cost of construction, and the funding available for construction purposes. Section 5.2.3 looks at employment and productivity in the construction sector. Finally, section 5.2.4 looks at the availability and cost of residential land.

5.2.1. Housing stock and new construction

The existing housing stock displays considerable differences across EU countries. Urban areas across the EU typically have a high proportion of apartments, due to space constraints. Rural and suburban areas typically have more single-family homes. In northern and western European countries (such as Ireland, Belgium and the Netherlands) there is a higher prevalence of single-family houses, especially in suburban and rural areas. This is largely due to more available land and a cultural preference for detached or semi-detached housing. In southern European countries (such as Spain Italy and Greece) a higher percentage of the population lives in apartments, particularly in urban areas. This is primarily due to the historical urbanisation. Central European countries (such as Austria and Germany) exhibit a mix, with a substantial share of both houses and apartments. In many Eastern European countries (such as Poland and Hungary), there is a significant number of people living in apartment blocks, many of which were built during the communist era, while in rural areas there are predominantly single-family homes.

The insufficient increase in housing supply has been accompanied by a declining supply elasticity over the last decade. The responsiveness of new housing supply to changes in house prices – known as the supply elasticity – has declined over the past decades in many developed countries.[67] In the US context, the reasons for the decline in the supply elasticity was linked to the tightening of land use regulation but also by decline in productivity in the construction sector, which makes the construction of

Bárcena, M. C. González and F. Tusell (2024): The effect of flood risk on house prices in the Basque Country. *Journal of Housing Economics*, Vol. 66, 102022.

[64] Premchand, Y.R., H.L.F. de Groot, T. de Graaff and E. Koomen (2024): Land subsidence, Water management, House prices, Hedonic pricing, Climate adaptation. Tinbergen Institute Discussion Papers, No. 24-073/VIII.

[65] Trautmann, Ch. (2024): Climate Change and Real Estate Prices: a Review of Physical and Transition Factors. Mimeo, WHU - Otto Beisheim School of Management.

[66] Baum-Snow, N. and G. Duranton (2025): Housing Supply and Housing Affordability. NBER Working Paper, No. 33694 document for the US that measures, including zoning laws, land-use regulations, and environmental constraints, significantly impact housing supply. They note that these regulations often lead to increased costs for developers, thereby restricting housing supply and reducing the price elasticity of housing. This means that housing markets become less responsive to changes in demand due to these constraints. By limiting the supply of new housing, these regulations increase competition for existing units, driving up prices

[67] Banerjee, R., D. Gorea, D. Igan and G. Pinter (2024): Monetary policy and housing markets: insights using a novel measure of housing supply elasticity. BIS Quarterly Review, December 2024.

housing more expensive.[68] The impact of both factors is likely more prominent in Europe where housing supply elasticity is believed to be significantly lower. Several cross-country studies aimed to provide housing supply estimates for the EU countries, with different results depending on the specific measure and period used than in the US (e.g. around 2-4% in the US vs. 0-2% in EU countries).[69] Limited country-level evidence[70] points to a decline of supply elasticity across time and to the fact that less elastic housing supply at city levels has an adverse impact on economic growth.[71] The combination of a persistently insufficient increase in housing supply and declining supply elasticity means that even when prices rise, the housing market is less able to respond with new construction. This dynamic exacerbates shortages and amplifies price increases, particularly in supply-constrained regions.[72]

While residential investment has gradually increased in the last decade, there has been a marked reduction in new construction. As shown in Graph 26, residential investment fell sharply after the global financial crisis – in part because its high levels had been induced by housing bubbles. Since the recovery in 2013, the share of residential investments of the GDP started to gradually recover. Despite the recent drop, it currently stands at around 5% of GDP, which is similar to the levels observed before 2008. However, over the same periods, new construction has been declining, reaching historical lows. The gap between residential investment needs and new construction is driven by different factors, notably by the increase in building costs and the relative increase in the resources invested in renovations.

The issuance of building permits fell sharply after the global financial crisis and is now at historical lows in many countries. Building permits are a leading indicator of new construction and there is a relatively high correlation between building permits and house completion. Graph 27 shows the evolution in permits issued for residential construction, normalised to m2 per 1000 inhabitants.[73]. Building permits issued in the EU experienced a significant decline after the global financial crisis and have never fully recovered. While there was some upward trend in permits until 2021, since 2022, they have declined to historical lows. At the same time, there are significant differences across EU countries. While the numbers may not be fully comparable between countries, the historical comparison shows that building permits are close to historical lows in most EU countries, with some notable exceptions, namely Portugal, Croatia, Spain and Greece.

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[68] Gyourko, J., J. Hartley and J. Krimmel (2021): The local residential land use regulatory environment across US housing markets: evidence from a new Wharton index. *Journal of Urban Economics*, Vol. 124, 103337. Goolsbee, A. and C. Syverson (2023): The strange and awful path of productivity in the US construction sector, NBER Working Paper, No. 30845.

[69] Caldera, A. and Å. Johansson (2013): The price responsiveness of housing supply in OECD countries, Journal of Housing Economics, Vol. 22, Issue 3, 231-249 report value of 2% for the US and less then unity for most EU countries. Cavarelli, M. Ch., B. Cournede and E. Özsöğüt (2019): How responsive are housing markets in the OECD? National level estimates. OECD Economics Department Working Papers, No. 1589 estimate the supply elasticity in terms if changes of real residential investment to real house prices changes, getting long-run elasticities lower than unity for the Netherlands, Belgium, France, Austria, Italy, Germany and Portugal, close to unity for Finland, Sweden and Hungary and above unity for Spain, Ireland, Denmark, Slovakia and Sweden. Banerjee et al. (2024) in turn use of change of building permits vis-à-vis change of house prices, concluded that relatively low elasticity can be found in Czechia, Austria, Ireland, Hungary, France, Poland, Sweden, Italy and Denmark and relatively higher in Finland and Germany. In addition, for some countries there is country specific evidence: for Lithuania, the Bank of Lithuania assumes supply to be inelastic in the short or medium term but does not specify the exact value of elasticity, For Luxembourg, Lilienfeld-Toal, U. et al., 2022, compute an estimate of 0.48.

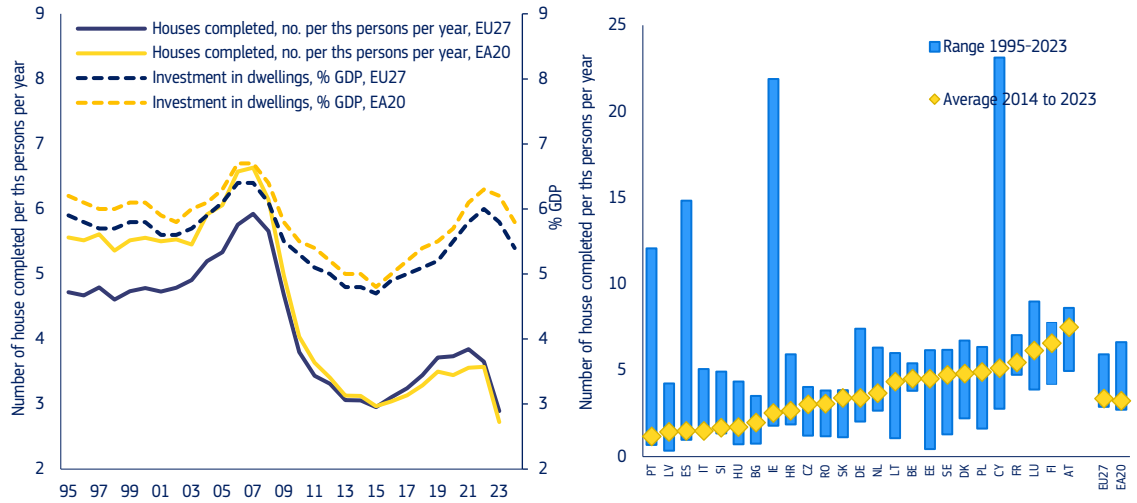
[70] Egan, P. and K. McQuinn (2023): Regime switching and the responsiveness of prices to supply: The case of the Irish housing market. *The Quarterly Review of Economics and Finance*, Vol. 87, 82-94. Günnewig-Mönert, M. and R. C. Lyons (2024): Housing prices, costs, and policy: The housing supply equation in Ireland since 1970. *Real Estate Economics*, Vol. 52, 1075–1102.

[71] Accetturo, A., R. Lamorgese, S. Mocetti and D. Pellegrino (2021): Housing supply elasticity and growth: evidence from Italian cities, *Journal of Economic Geography*, Vol. 21, Issue 3, 367–396,

[72] Banerjee et al. (2024).

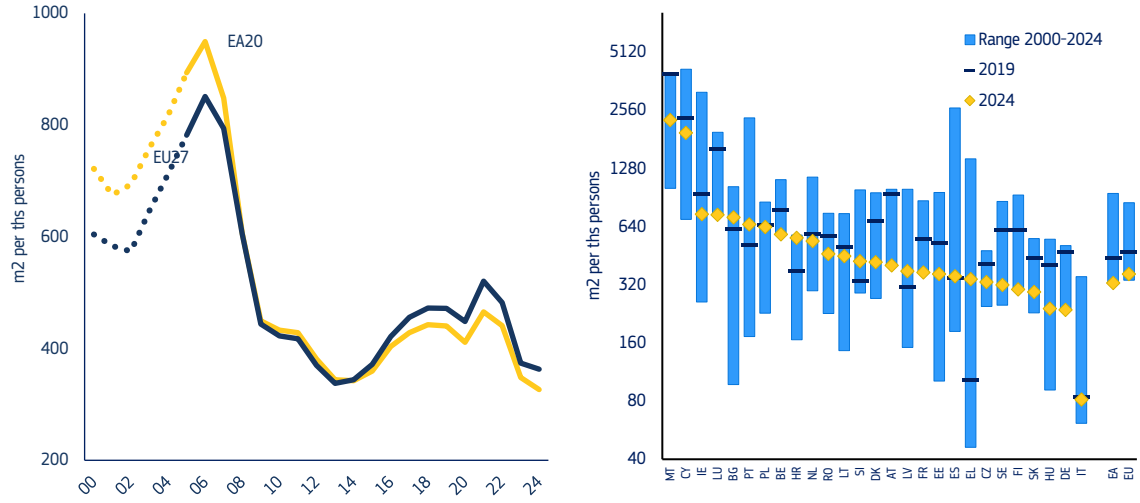
[73] Eurostat offers two indices for building permits: the "dwelling index" and the "floor area index." The dwelling index tracks changes in the number of permits for one-dwelling and multi-dwelling residential buildings, excluding community residences like elder care homes. The floor area index measures changes in the useful floor area for which permits are issued, using an alternative size measure if needed. It is more comprehensive than the dwelling index, covering all residential buildings, including community residences, as well as non-residential buildings such as offices, hotels, shops, warehouses, industrial sites, schools, and hospitals.

Graph 26: **Residential investment (% of GDP) vs newly completed dwelling (per 1000 inhabitants) in the EU, 1995-2023**



Source: ECB, Eurostat, ECFIN own calculations.

Graph 27: **Building permits (m2 per 1000 inhabitants) in the EU, 2000-2024**

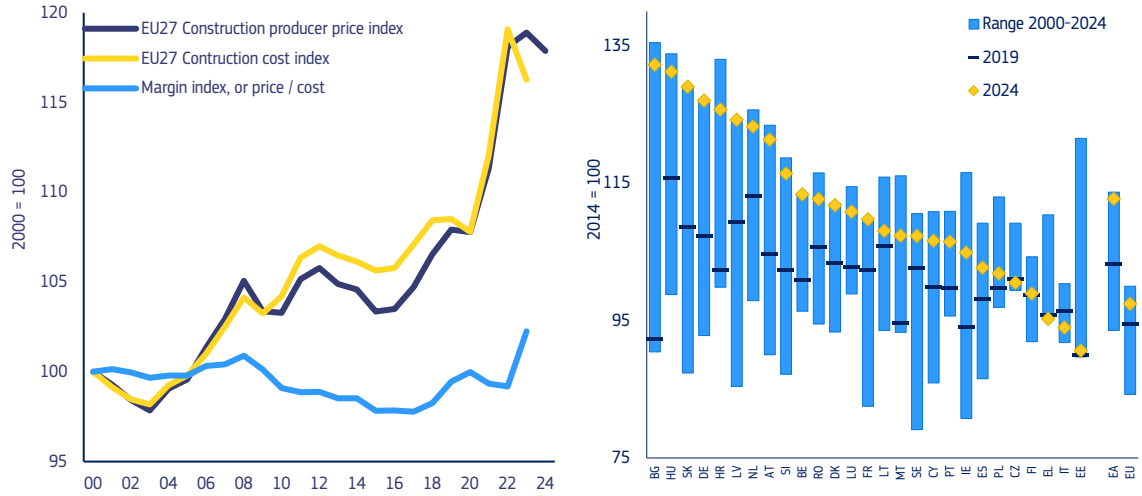


Source: Eurostat, ECFIN own calculations.

5.2.2. Construction cost and construction sector funding

Since the pandemic, house price pressures have intensified due to a substantial rise in construction input costs. For nearly two decades (2000–2020), construction prices remained relatively stable in real terms. However, costs increased strongly over the pandemic and even more so in the years since, with construction costs rising faster than the already high inflation, as shown in Graph 28. Between 2020 and 2022, the cost of labour and prices of materials surged significantly, exacerbated by supply chain disruptions and soaring commodity prices, including energy. In 2022, higher interest rates became another factor putting upward pressure on construction costs. The construction market is made up mostly by SMEs, which have limited access to bank credit in general, and may be more affected by increasing funding costs. In certain countries, notably Bulgaria, the surge in construction costs has been evident over the past two decades, highlighting a broader trend of increasing financial strain on the housing sector.

Graph 28: **Construction producer price adjusted to inflation (2014=100)**



Source: Eurostat.

Notes: GDP deflator was used to adjust to inflation.

5.2.3. Employment and productivity in the construction sector

Over the last five years, employment in the construction sector has faced significant challenges, resulting in widespread labour shortages. Across the EU, construction workers make up around 4% of total employment, and account for around 7½ million jobs. While this total has fluctuated over the years, there have been strong changes since the pandemic. Between 2019 and 2020 the construction sector lost 435 thousand jobs due the economic lockdowns.[74] While there was an expansion as normality resumed by the end of 2022, employment was still 50 thousand workers short of pre-COVID-19 levels. Labour shortages in the construction industry have become a growing issue across most EU countries, with shortages now nearly three times the level observed a decade ago. National and European policies, such as the EU Green Deal and National Recovery and Resilience Plans, are setting new environmental targets requiring substantial investment in construction. While the green transition is projected to create between 1 and 2.5 million additional jobs by 2030, it will be necessary to expand the qualified workforce to meet this demand.

The construction sector faces widespread skills shortages and mismatches, which need to be addressed through reskilling or upskilling of its workforce. The Federation of European Construction Industry (FIEC) and partners in the Pact for Skills in Construction estimate that 25% of the workforce needs upskilling or reskilling between 2022 and 2027, to reach the target of 3 million skilled workers. This is crucial for maintaining the sector's long-term competitiveness, which represents some 10% of the EU GDP and 6.4% of total employment. The SME-dominated structure of the construction sector presents challenges in integrating innovation and investing in workforce development. Embracing advanced construction technologies and practices can streamline processes, stabilise workforce demands, and ultimately enhance employment stability and sector growth.

The construction sector is characterised by low – and falling – productivity, which is exacerbated by the predominance of small firms. The construction industry in the EU is characterised by the presence of a large number of small firms; its 3.5 million firms have an average of 4 employees.[75] This creates productivity challenges, as small firms are less able to benefit from economies of scale, or

[74] OECD (2021): OECD Employment Outlook 2021: Navigating the COVID-19 Crisis and Recovery. OECD Publishing, Paris.

[75] Italy has the highest number of construction firms (over 0.5 million), followed by France, Spain, and Germany. In terms of employees, Italy features the smallest firm size (2.6 employees per firm), followed by Belgium, Spain, and France.

to engage in R&D and incorporate innovations in their production process. [76] Of all major industries within the EU, construction stands out as the only sector to have recorded negative average productivity growth since 1990s,[77] most notably in Italy, France and Spain,. and overall productivity of construction is the lowest of all sectors. The economic underperformance of the construction sector is not just an EU phenomenon: it is also evident in the US. Production costs for construction in the USA, have increased at a much faster rate than for other goods, and overall productivity has declined most significantly in regions with a higher concentration of construction and stricter housing supply constraints.[78]

5.2.4. Residential land availability and prices

The recent rise in house prices is part of a broader, long-term trend of rising land prices driven by limited land availability. This trend is evident in developed nations, where housing prices have been consistently increasing since the 1950s, mainly due to escalating land values rather than construction expenses.[79] Land stands out economically because of its permanence, lack of depreciation, and essentially fixed supply. [80] As a result, landowners can secure economic rents without needing to make additional investments or exert extra effort. In the EU around 75% of EU land is utilised for agriculture and forestry, with only 3% for residential purposes. These figures, shown in Graph 29, hide significant regional differences, with cities and the areas around them being much more residential, but also providing far fewer possibilities for increasing the supply of land to expand housing provision.

Land prices in the EU have been rising, driven by high demand and limited supply, particularly in urban areas. Over the past decade, major cities in the EU have experienced significant increases in land values. In these urban centres, the scarcity of available land for development leads to an inelastic supply, causing housing demand to drive up land prices. Regulatory and zoning restrictions are key constraints on land availability, as they determine the potential uses of available land. Relaxing these restrictions can increase the supply of land for building purposes, even though geographical area remains unchanged. However, it appears also that different EU policies as those related to sustainable land use, soil protection, urban development, and regional development showing particularly strong direct or indirect effects on urbanisation and land use patterns.[81] In contrast, rural areas and smaller cities tend to have more stable or slower-growing land prices due to both lower demand and more elastic supply.

The available evidence points to land prices as significant drivers of house price growth in advanced economies. While a comparable disaggregated data base on land prices is not available on the EU-wide level, there have been attempts to provide country-level estimates[82] using different methods.[83] These data suggest that average land values have been increasing faster than house prices

[76] Rugiero, S. and D. Di Nunzion (editors) (2023): *Digital Transitions and Innovation in Construction Value Chains*. Cheltenham, UK: Edward Elgar Publishing.

[77] The fall in productivity evident by looking at the value added of the sector compared with the total hours worked.

[78] D. Garcia and R. Molloy (2025): Re-examining Lacklustre Productivity Growth in Construction. *Regional Science and Urban Economics*, 104107.

[79] Knoll, K., M. Schularick and T. Steger (2017): No Price Like Home: Global House Prices, 1870–2012. *American Economic Review,* Vol. *107*, Issue 2, 331–353. Dotsis, G., P. Petris and D. Psychoyios (2025): Assessing Housing Market Crashes over the Past 150 years. Journal of Real Estate Finance and Economics, Vol. 70, 359–377.

[80] Ryan-Collins, J., T. Lloyd and L. Macfarlane (2017): *Rethinking the Economics of Land and Housing*. Zed Books.

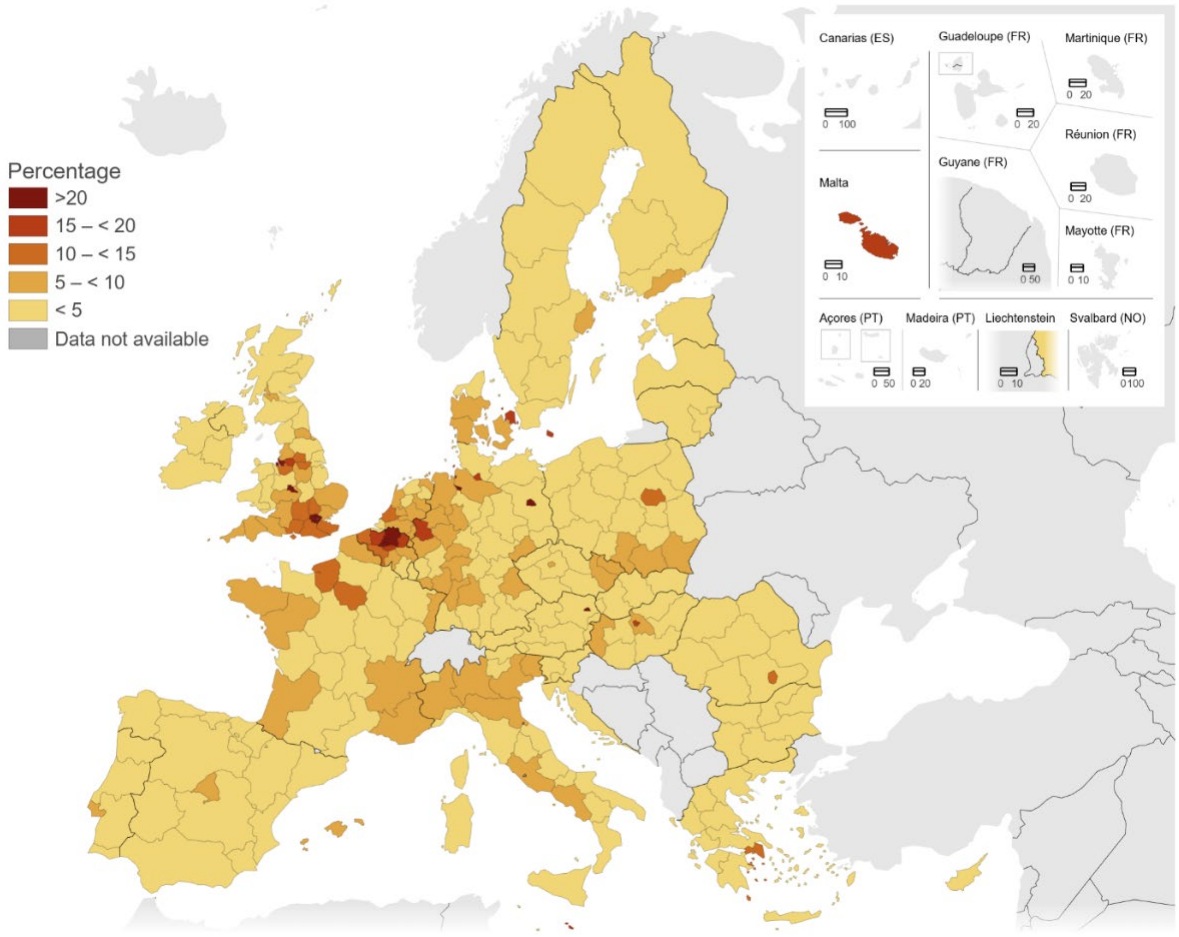
[81] Scheurer, L. and A. Vranken (2024): The impact of EU regulations and policies on land use in cities. Lessons for the Urban Agenda for the EU and intergovernmental cooperation. Research paper of the Belgian presidency of the Council of the EU.

[82] There are three methods used for land price estimation. i) residual method, which estimates land price as the difference between housing value and replacement cost of the structure, ii) spatial transaction-based approach, which uses structural and non-parametric methods for land price estimation, iii) a hedonic regression, which separates house value into its land and structure components.

[83] Braun, S. and G. S. Lee (2021): The prices of residential land in German counties. *Regional Science and Urban Economics*, Vol. 89, 103676.

themselves. This is consistent with land values significantly driving house price variations in the U.S. [84] and other advances economies such Japan, Australia, Canada but also China, for which most of the research on land value estimation has been carried out.[85] A number of factors have been identified as drivers of residential land prices, with geographical attractiveness being an important one.[86]

Graph 29: **Residential areas, 2018 (% of land use)**



Source: Eurostat (dataset code lan_use_ovw).

[84] D. Albouy, G., M. Ehrlich, and M. Shin (2018): Metropolitan land values. *Review of Economics and Statistics*, Vol. 100, Issue 3, 454-466. Davis, M. A., W.D. Larson, S. D. Oliner, and J. Shui (2021): The price of residential land for counties, ZIP codes, and census tracts in the United States. Journal of Monetary Economics, Vol. 118, 413-431.

[85] Zhou, P., Y. Gai and C. Wang (2025): Determination of urban land value: a systematic literature review. *Journal of Accounting Literature*.

[86] Al Totanji, D. A. M. and M. B. S. Ishak (2023): Factors affecting residential land prices A review of the literature. *SCIREA Journal of Civil Engineering and Building Construction*, Vol. 8, Issue 1. Kajuth, F. (2021): Land leverage and the housing market: Evidence from Germany. *Journal of Housing Economics*, Vol. 51, 101746.

6. POLICY MEASURES AFFECTING HOUSING MARKET DEVELOPMENTS AT A COUNTRY LEVEL

Housing market developments are influenced by policies directly aimed at housing and by policies that affect housing through secondary effects, which can be significant. Policies directly aiming to affect housing outcomes include social housing, rental market regulation, homeownership support policies and zoning regulations. Policies which do not primarily target housing developments but have a significant impact on them include fiscal policy, macroprudential policies, environmental and energy policies, and taxation. The impact of these latter policies can be greater than the impact of direct policies. As a result, addressing affordability challenges necessitates a specific policy mix tailored to both national or local (regional or city-specific) housing market conditions and taking on board all different policy areas that ultimately affect housing markets.

There is a broad consensus that supply policies are more effective than demand-side policies in improving housing affordability, but they are politically more costly to implement. Public policies aimed at addressing housing (un) affordability, can act on the demand or the supply side. Both theory and evidence from the economic literature suggest that supply-side measures are generally effective and therefore offer the most promising avenue for addressing rising house prices. These measures include reforming land-use policies, reforming property taxes, increasing investment in social housing, reforming the rental market, improving transport and other supportive infrastructure. [87] Instead, majority of European governments have introduced demand-side policies, such as mortgage interest deductibility or first-time buyer grants, interest-rate subsidies, which can have detrimental long-term effects.[88] Voters generally favour demand-side measures, including mortgage interest deductibility, tax rebates or mortgage payment subsidies, which appear to facilitate access to housing in the short term, but can increase demand and fuel price increases over time. Furthermore, there is generally broad public support for policies that are punitive towards property owners, including rent control and restrictions on home-buying by institutional investors. While these policies can have positive short-term effects on prices, over the longer term they can lead to lower housing investment and supply - unless very carefully calibrated. Overall, there is clear support to the construction of means-tested affordable housing, but less so for policies conducive of increased housing supply at market prices.[89] Hence, addressing structural drivers of house price growth is politically challenging. [90]

This section discusses the policy environment across the EU, to provide input into policy making. The fact that so many EU countries are faced with high house prices, indicates that there are likely common **features** which drive these developments. However, there are also large differences in the market structure and the policies that drive prices. This section provides an overview of this policy space, to act as an evidence base to policymaking. The complexity of the factors that influence the housing market mean that no easy solutions are available, but by considering the range of policies in place, there are improvements that can be found at regional, national and EU levels. Section 6.1 discusses the role of macro-prudential policy and mortgage market regulation and gives an overview of the main measures in place. Section 6.2 considers the role of building regulation and the procedure of obtaining building permits. Section 6.3 discusses land use the role of zoning regulations, while 6.4 covers the regulation of rental markets. 6.5 discusses social housing, while 6.6 present the role of tax and benefit systems in determining

[87] OECD (2023). Brick by Brick (Volume 2): Better Housing Policies in the Post-COVID-19 Era, OECD Publishing, Paris. OECD (2024). An Agenda for Housing Policy Reform, Policy Brief.

[88] OECD (2021). *Brick by Brick: Building Better Housing Policies*, OECD Publishing, Paris. OECD Affordable Housing Database – http://oe.cd/ahd.

[89] Elmendorf, C. S., Nall, C., & Oklobdzija, S. (2024). What state housing policies do voters want? Evidence from a platform-choice experiment**.** *Journal of Political Institutions and Political Economy*, 5(1), 117–152.

[90] Nall, C. (2024). Can Economic Fact-Checking Remedy Incorrect Beliefs About Housing Markets? *Housing Policy Debate*, 1–6.

housing outcomes. The incentives for homeownership are covered in section 6.7, and insolvency and foreclosure regulation are the topic of section 6.8.

6.1. MACROPRUDENTIAL POLICY AND MORTGAGE-RELATED REGULATION

Macro-prudential policy aims at preserving financial stability and limiting the build-up of vulnerabilities, including those that result from mortgage debt. Macro-prudential policies aim at avoiding the build-up of systemic risks in the financial sector. This includes risks associated with excessive credit growth and leverage, excessive maturity mismatch and market illiquidity, direct and indirect exposure concentration, and misaligned incentives. Macro-prudential policies also ensure the presence of sufficient buffers in the financial system. While macro-prudential policies related to housing are generally aimed at safeguarding financial stability by contributing to a healthy loan origination by banks, they also pursue intermediate objectives, such as ensuring lender and borrower resilience or preventing excessive house price volatility.[91]

Macro-prudential policy makes use of many of policy levers. In part due to the multiple intermediate targets, macro-prudential measures comprise multiple instruments. These include notably borrower-based measures, which aim to reduce the risk associated with borrower characteristics, and capital-based measures, which are focussed on the relative size of assets and liabilities. In contrast to policy rate hikes, macro-prudential tightening does not need to entail a generalised reduction of economic activity, limiting the potential costs of policy intervention. The wide introduction of borrower-based measures over the last decade has contributed to a more sustainable loan origination; this has impeded a rise in non-performing mortgages as had occurred in several EU countries during the Global financial crisis, which would likely lead to a decrease in the housing loan supply for all categories of borrowers. Borrower-based measures can also moderate the demand for loans and result in lower house prices – this may be more likely to occur in countries where home ownership is closely tied to mortgage loans. Tightened borrowing constraints may however have distributional consequences and affect access to credit and home ownership, particularly among younger households with low equity.[92]

The economic literature generally confirms the effectiveness of macroprudential measures in supporting the financial sector stability. Using data on 99 lending standard restrictions implemented in 28 EU countries over 1990-2018, Poghosyan (2020) found that these measures were generally effective in curbing house prices and credit.[93] Macroprudential policy is found to be countercyclical, mitigating the upside risks of credit growth during expansionary periods, while the easing of macroprudential measures during crises reduces the risks of credit contractions.[94] Borrower-based measures, such as loan-to-value (LTV) limits, are found to successfully reduce household leverage.[95] This is also the case for amortisation requirements, which, appeared to effectively reduce house price growth and household indebtedness.[96] There is some debate about the efficiency of macroprudential measures and their ability to prevent the emergence of housing bubbles. Empirical evidence suggests that LTV

[91] BIS (2023): Macroprudential policies to mitigate housing market risks. CGFS Papers, No. 69, December 2023.

[92] Bolliger, E., A. Bruhin, A. Fuster and M. Ganarin (2025): The effect of macroprudential policies on homeownership: Evidence from Switzerland. *Journal of Urban Economics*, Vol. 146, 103749.

[93] Poghosyan, T. (2020): How effective is macroprudential policy? Evidence from lending restriction measures in EU countries. *Journal of Housing Economics*, Vol. 49, 101694.

[94] Galán, J.E. (2025): Macroprudential policy and the tail risk of credit growth, Banco de Espana, Documentos de Trabajo, No. 2509.

[95] Abreu, D., S. Félix, V. Oliveira and F. Silva (2024): The impact of a macroprudential borrower-based measure on households' leverage and housing choices. *Journal of Housing Economics*, Vol. 64, 101995.

[96] Wilhelmsson, M., (2022): What is the impact of macroprudential regulations on the Swedish housing market? *Journal of Housing Economics*, Vol. 57, 101840.

regulations alone may not prevent housing bubbles, whereas debt-to-income (DTI) constraints appear sufficient to stop them, even without additional policies.[97]

Macroprudential tools have been introduced across the EU over the last decade. Macroprudential policy is primarily determined by national macroprudential authorities within each EU Member State. These authorities have the responsibility to identify and mitigate systemic risks specific to their national financial systems. However, there is also a coordinating role played by the European Systemic Risk Board (ESRB), which provides guidance and recommendations to ensure consistency and effectiveness of macroprudential policies across the EU. Additionally, the ECB has certain powers to increase (top up) capital buffers and tighten certain macroprudential measures set by national authorities in the euro area countries. The capital-based macroprudential tools – applicable to lenders – are integrated into the Capital Requirements Directive (CRD) and the Capital Requirements Regulation (CRR).[98] These tools encompass a countercyclical capital buffer and extra capital requirements for banks' mortgage exposures (Table 2 presents a full overview). Since 2010, most EU countries have implemented a mix of macroprudential measures targeting the lenders: countercyclical capital buffer (CCyB), systemic risk buffer (SyRB), sectoral minimum risk weights on real estate exposures, and/or the borrowers: limits on LTV ratio, on debt service-to-income (DSTI) ratio, on debt-to-income (DTI) ratio and on loan-to-income (LTI) ratio.[99] Since the introduction of macroprudential limits, house prices have significantly outpaced credit growth. This contrasts with the run-up to the global financial crisis where strong credit growth appeared to be a driver of house price growth, resulting high indebtedness and high house prices. The role that these factors played in the global financial crisis were the reason for the introduction of macroprudential policies.

Nearly all EU countries have active macro-prudential policies, mostly a combination of LTV limit and some capital-based measure. As shown in Table 1, 20 Member States currently have LTV limit, that are mostly capped at 80% to 90%. LTV requirements can differ depending on the type of buyers; for instance, there may be lower requirements for first time buyers, and many Member States also generally a higher LTV for primary residence purchases compared to buy-to-rent investments. 13 Member States have maximum loan duration limits, with limits of around 30 years in most cases. Sweden is an outlier with a limit of 60 years. 14 Member States have DSTI requirements, which can also depend on the type of purchases. In some Member States, a share of the volume of loans is exempted from LTV or DSTI requirements (usually 10% to 20% of the loan volume). Capital-based measures also include the CCyB, which in most Member States currently ranges between 1% and 2%. Several EU Member States introduced a CCyB earlier in the cycle, when cyclical risks were not yet elevated (i.e., the so-called positive cycle neutral CCyB). There are no countercyclical buffer requirements in some Member States (Austria, Finland, Italy, Malta) or very low requirements (i.e., 0.25% in Greece, 0.5% in Luxembourg and Latvia). Some non-EA countries including Hungary and Romania have also implemented instruments to better deal with the risks of foreign currency loans.[100]

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[97] Chevalier, C.O. and S. El Joueidi (2025): Housing regulation and bubbles. *Journal of Housing Economics*, Vol. 67, 102046.

[98] Capital Requirements Directive CRD 4 - European Commission, Regulation - 575/2013 - EN - Capital Requirements Regulation - EUR-Lex.

[99] Borrower-based measures represent the main macroprudential instrumented targeting housing market developments. LTV caps limit the amount of loans below a share of the dwelling price. Tighter LTV caps face lower crisis risks but usually imply less vigorous recoveries. DSTI ratios require households to pay no more than a certain proportion of their income to service their housing loans. They can also be based on total rather than only housing debt servicing costs. LTI limit the amount of debt to a certain fixed multiple of income and are less common. Differently from DSTIs, they don't get looser in times of booms, when interest rates are low, and banks offer more accommodative credit conditions. LTV, LTI, DSTI standards are already imposed by banks, but government measures can make them more stringent. There are alternative measures that can be tuned in, such as risk weights that increase the amount of capital required to fund riskier mortgages. See Cavalleri, M.C., B. Cournède and V. Ziemann (2019): Housing markets and macroeconomic risks, OECD Working Paper, No. 1555. Tightening of DSTI-caps could be a better instrument than tightening LTV-caps in curbing credit growth. See Kuttner, K.N. and I. Shim (2016): Can non-interest rate policies stabilize housing markets? Evidence from a panel of 57 economies. *Journal of Financial Stability*, Vol. 26, 31-44. A DSTI-limit has the potential to work anti-cyclical as interest rates tend to move with the business cycle. On another note, LTI caps present the advantage, over DSTI and LTV caps, of not being sensitive to fluctuations in interest rates or house price movements.

[100] Hungary and Romania, for instance, have specific borrower-based measures (LTV and DSTI) for foreign currency loans. Poland also introduced specific LTV and DSTI caps for FX loans and increased the associated risk weights.

Some EU countries have relatively relaxed macroprudential limits, and several of them temporarily eased these requirements during the pandemic. Some Member States such as Bulgaria, Germany, Spain, Croatia and Italy do not have any legally binding borrower-based measures. Luxembourg or the Netherlands have relatively loose LTV limits, and Sweden allows mortgages to be extended over multiple generations.[101] Although it is challenging to evaluate the effects of this temporary easing, it's possible that the impact of these macroprudential measures might not be uniform. These measures are typically designed to prevent a credit-driven boom, and their effect when relaxed during an economic downturn had not been thoroughly tested until recently.[102]

The European Systemic Risk Board (ESRB) provides macroprudential oversight of the financial sector, by identifying potential risks at an early stage. The ESRB was established in response to the global financial crisis, as part of the EU's efforts to strengthen financial supervision and risk management. It became operational in 2011. The ESRB has assessed systematically medium-term residential real estate (RRE) vulnerabilities in the European Economic Area (EEA) countries since 2016.[103] The ESRB can issue warnings if it sees the need to flag vulnerabilities and trends that have the potential to disrupt financial stability. It can also issue recommendations, which not only flag financial stability risks but also point to necessary remedial actions. The last assessment was published in February 2022 and was followed by an update published in February 2024, which confirmed the 2021 findings. [104] The ESRB's country-specific findings are summarised in Table 1. In additional to national surveillance, the ESRB issued a general warning in September 2022 indicating that vulnerabilities in the EU/EEA residential real estate sector were 'severe' due to, in part, buoyant house price and mortgage growth. In January 2023, the ESRB issued recommendation to national authorities to improve the monitoring of systemic risks stemming from the commercial real estate sector. In its update published in February 2024, the ESRB indicated that the level of stock risks remained significant in most countries while the growth of cyclical risks had decelerated or stopped in most countries.

Foreign currency-denominated mortgages were a significant risk factor in the past, but their importance has diminished. Before the global financial crisis, a significant portion of mortgages in Central and Eastern Europe were denominated in foreign currencies, particularly in Swiss Francs. These mortgages offered their lower interest rates and consequently lower monthly payments than those denominated in domestic currencies. While these mortgages were advantageous in the short term, they presented risks to the stability of the financial sector over the longer term. With the onset of the crisis, the depreciation of local currencies had severe financial consequences for households. The lessons learnt led to the implementation of a range of measures which largely decreased the importance of these loans and their associated risks. As a result of these measures, the share of foreign currency-denominated mortgages is now very low.

[101] While the maximum mortgage duration is generous in Sweden, there is an amortisation requirement in place for mortgages > 50% of LTV. For smaller mortgages, the macroprudential risks seem very limited.

[102] Couaillier, C., A. Reghezza, C. Rodriguez d'Acri and A. Scopelliti (2025): How to release capital requirements in an economic downturn? Evidence from euro area credit register. *Journal of Financial Intermediation*, 101148.

[103] ESRB (2016): "Vulnerabilities in the EU residential real estate sectors", November 2016, ESRB (2019): "Vulnerabilities in the residential real estate sectors of the EEA countries", September 2019 and ESRB (2022): "Vulnerabilities in the residential real estate sectors of the EEA countries", February 2022.

[104] The Macroeconomic Imbalance Procedure (MIP) Regulation (Regulation EU No. 1176/2011) calls on the Commission to take into account any warnings or recommendations addressed by the ESRB to Member States subject to an In-depth Review (IDR).

Table 1: **Macroprudential measures and ESRB assessment**

COUNTRY	MAXIMUM LOAN TO VALUE RATIO (LTV)	MAX. DURATION OF LOAN (YEARS)	DEBT SERVICE TO INCOME (DSTI) LIMIT	DEBT TO INCOME (DTI) LIMIT	RISK WEIGHTS	CAPITAL-BASED MEASURES	ESRB ASSESSMENT
BELGIUM	90% (with tolerance 20%-35%), 80% for buy-to-rent	NA	NA	NA	NA	CCyB 1% (10/2024) 0.5% (4/2024) 0% (4/2020) Sectoral SyRB 6%	Warning in 2019 Recommendation in 2021 2023 assessment: medium risk, policy appropriate and sufficient
BULGARIA	NA	NA	NA	NA	NA	CCyB 2% (10/2023) General SyRB 3%	Warning in 2021 2023 assessment: medium risk, policy partially appropriate and partially sufficient
CZECHIA	80%, 90% below 36y (with exemption of 5% of volumes)	30	NA	NA	NA	CCyB 2.5% (4/2023) 2% (1/2023) 1.5% (10/2022)	Warning in 2019 2022 assessment: stock risk medium, flow risk high, policy appropriate and sufficient 2023 assessment: medium risk, policy appropriate and sufficient
DENMARK	5% down payment required for home buyers	NA	NA	Wealth criteria if LTI > 4	NA	CCyB 2.5% (3/2023) 2.0% (12/2022) 1% (9/2022) Sectoral SyRB 7%	Warning in 2016 Recommendation in 2019 2023 assessment: high risk, policy partially appropriate and partially sufficient
GERMANY	NA	NA	NA	NA	NA	CCyB 0.75% (2/2023) 0% (4/2020) Sectoral SyRB 2%	Warning in 2019 Recommendation in 2021 2022 assessment: stock risk medium, flow risk high, policy partially appropriate and partially sufficient 2023 assessment: medium risk, policy partially appropriate and partially sufficient
ESTONIA	85%, 90% if guaran.	30 (exemption for 15% of	50% (exemption for 15% of new loans volume)	NA	15% for IRB	CCyB 1.5% (12/2023)	2022 assessment: stock risk medium, flow risk high, policy

		new loans volume)				1% (12/2022) 0% (1/2016)	appropriate and sufficient 2023 assessment: medium risk, policy appropriate and sufficient
IRELAND	90% for first-time buyers 80% for non-first-time buyers (exemptions for 15% of loan volumes)	NA	NA	New housing loans with LTI>3.5 should be less than 20% of new loans volume	NA	CCyB 1.5% (6/2024) 1% (11/2023) 0.5% (6/2023) 0% (4/2020)	2023 assessment: medium risk, policy appropriate and sufficient
GREECE	90% for first-time buyers, 80% for non-first-time buyers, LTV exemption for 10% of new loans	NA	50% for first time buyers, 40% else	NA	NA	CCyB 0.25% (10/2025) 0% (1/2016)	2023 assessment: low risk, policy appropriate and sufficient
SPAIN	NA	NA	NA	NA	NA	CCyB 0% (1/2016)	2023 assessment: low risk, policy appropriate and sufficient
FRANCE	NA	25 + 2	35% (with exemption for 20% of the volume of loans)	NA	NA	CCyB 1% (1/2024) 0.5% (4/2023) 0% (4/2020) Sectoral SyRB 3%	Warning in 2019 2023 assessment: medium risk, policy appropriate and sufficient
CROATIA	NA	NA	NA	NA	Higher risk weights for exposures secured by mortgages on commercial immovable property (from 50% to 100%).	CCyB 1.5% (6/2024) 1% (12/2023) 0.5% (3/2023) 0% (1/2016) General SyRB 1.5%	Warning in 2021 2023 assessment: medium risk, policy partially appropriate and partially sufficient
ITALY	NA	NA	NA	NA	NA	CCyB 0% (1/2016)	2023 assessment: low risk, policy appropriate and sufficient

CYPRUS	80% for prim res, 50% for real estate companies (luxurious properties), 70% for other cases	NA	80% (65% if foreign currency loan)	NA	NA	CCyB 1% (6/2024) 0.5% (11/2023) 0% (12/2015)	2023 assessment: low risk, policy appropriate and sufficient
LATVIA	90%, 70% buy to let	30	40% (45% for energy efficient housing, exemption on 10% of loans)	6 (8 for energy-efficient housing)	80% on commercial property	CCyB 0.5% (12/2024) 0% (2/2016)	2023 assessment: low risk, policy appropriate and sufficient
LITHUANIA	85%, 70%	30	40%	NA	NA	CCyB 1% (10/2023) 0% (4/2020) Sectoral SyRB 2%	2022 assessment: stock risk low, flow risk high, policy appropriate and sufficient 2023 assessment: medium risk, policy appropriate and sufficient
LUXEMBOURG	80%, 90% prim.res., 100% first time buyers	NA	NA	NA	15% for IRB 75% loans with LTV over 80%	CCyB 0.5% (1/2021)	Recommendation in 2019 Compliance report 2022: fully compliant 2022 assessment: stock risk high, flow risk high, policy partially appropriate and partially sufficient 2023 assessment: high risk, policy partially appropriate and partially sufficient
HUNGARY	80%, 90% for first-time buyers with HUF secured loans	NA	PTI ratio from 25% to 60% depending on income, length of fixation IR, currency	NA	NA	CCyB 1% (7/2025) 0.5% (7/2024) 0% (1/2016)	Warning in 2021 2022 assessment: stock risk low, flow risk high, policy partially appropriate and partially sufficient 2023 assessment: medium risk, policy appropriate and sufficient
MALTA	No LTV below 175k€, 90% if >175k€ with exemption for 10% of	40 (prime res.), 25	40% (exempted below 175k€ collateral)	NA	Exposures secured by mortgages on residential property and	CCyB 0% (1/2016) Sectoral SyRB 1.5%	2023 assessment: medium risk, policy appropriate and sufficient

	the volume of loans				attracting a risk-weight of 35% not to exceed 70% of the market value of that property		
THE NETHERLANDS	100.0%	30	NA	NA	12% for part of loan with LTV over 55%, 45% for the rest of loan	CCyB 2% (5/2024) 1% (5/2023) 0% (1/2016)	Warning in 2016 Recommendation in 2019 2022 assessment: stock risk high, flow risk high, policy appropriate and partially sufficient 2023 assessment: high risk, policy appropriate and partially sufficient
AUSTRIA	90% with exemption bucket of 20% of new loan volume	35 (exemption bucket of 5%)	30%-40% (with exemption bucket of 10%)	NA	NA	CCyB 0% (1/2016) General SyRB (bank specific) 0.5%-1%	Warning in 2016 Recommendation in 2021 2023 assessment: medium risk, policy appropriate and sufficient
POLAND	80% (90% if the part above 80% is collateralised with funds/securities)	25-35	No strict DSTI limit, recommended attention if DSTI>40%	NA	50% on CRE for own business, 100% on CRE for renting or selling	CCyB 1% (9/2025) 0% (1/2016)	2023 assessment: medium risk, policy appropriate and sufficient
PORTUGAL	80%, 90% prim.res.	30 (on average for new mortgages)	50% (for at least 85% of mortgages)	NA	NA	CCyB 0% (1/2016)	2022 assessment: stock risk medium, flow risk high, policy appropriate and sufficient 2023 assessment: medium risk, policy appropriate and sufficient
ROMANIA	85% for RON loans, 80% FX loan hedged borrowers, 75% for EUR loans unhedged borrowers	NA	40%, 20% if FX unhedged	NA	100% for CRE exposures of SA banks	CCyB 1% (10/2023) 0.5% (10/2022) 0% (11/2015) General SyRB (bank specific) 0%-1%	2023 assessment: low risk, policy appropriate and sufficient

SLOVENIA	80% primary property, else 70%		50% + rule about minimum amount to be left with after payment obligation (745€/month)	NA	50% on commercial immovable property	CCyB 1% (1/2025) 0.5% (12/2023) 0% (1/2016) Sectoral SyRB 0.5%-1%	2023 assessment: medium risk, policy appropriate and sufficient
SLOVAKIA	80% up to 90% for 20% of new loans	30	60%	8	NA	CCyB 1.5% (8/2023) 1% (8/2020)	Warning in 2021 2022 assessment: stock risk medium, flow risk high, policy appropriate and partially sufficient 2023 assessment: medium risk, policy appropriate and sufficient
FINLAND	90.0%	30 (exemption bucket 10%)	60% (exemption bucket 15%)	NA	NA	CCyB 0% (3/2015) General SyRB 1%	Warning in 2016 Recommendation in 2019 2023 assessment: medium risk, policy appropriate and sufficient
SWEDEN	85%, amortisation rules if LTV>70%	60	NA	Amortisation rules if DTI>4.5	25% for IRB	CyCB 2% (6/2023) 1% (9/2022) 0% (3/2020) General SyRB (bank specific) 3%	Warning in 2016 Recommendation in 2019 2022 assessment: stock risk high, flow risk high, policy appropriate and partially sufficient 2023 assessment: high risk, policy appropriate and partially sufficient

Source: ECB, ESRB, NCBS.

6.2. BUILDING REGULATIONS AND BUILDING PERMITS PROCEDURES

Building regulations in the EU aim at ensuring safety, sustainability, and energy efficiency, as well as local concerns. All EU countries have a range of building regulations which influence construction costs and the types of homes that can be built. They pursue a wide range of objectives. These include the safety of homes and the construction process (including for workers), the sustainability and accessibility of buildings, as well as energy efficiency and sustainability. In addition, national or sub-national zoning requirements have more local objectives, such as ensuring architectural coherence in a local area. Although these objectives have their own merit – and may, such as in the case of climate objectives, be very important – they can add constraints to the building process, creating a hindrance to the supply of new housing.[105]

[105] Brueckner, J. K. (2009): "*Government land use interventions: An economic analysis. Urban land markets: Improving land management for successful urbanization*", Springer.

Aggregated indicators for construction regulations show consistently low scores for some EU countries. It can be difficult to summarise and compare zoning and building regulations across countries using consistent measures. One reason for this is that in many countries these policies are determined at sub-national level, making it difficult to produce a national assessment. The World Bank reports indicators for construction regulations that could be used as a proxy despite being focused on business and not households. These data – from 2020 – are summarised in Table 2 and consists of a score for dealing with construction permits[106], a measure of the average number of days needed to complete the construction process[107], the costs of transferring property[108] and a measure of the quality of land administration[109]. The worst scores dealing with construction permits were attained by Czechia, Croatia, Romania and Slovakia. The longest time to complete all construction procedures was reported in Cyprus, followed by Romania, Slovakia, Slovenia and Czechia. The costliest transfer of property was recorded in Malta, followed by Belgium and Luxembourg. The lowest values for the quality of land administration were recorded by Greece, followed by Malta and Romania. However, the usefulness of this indicator is limited by the fact that it refers to an imaginary commercial real estate project, whereas the regulations for housing could be different.

Energy efficiency norms are now an integral part of building regulations and can put upward pressure on housing costs in the short term. Buildings in the EU are responsible for 40% of energy consumption and 36% of greenhouse gas emissions in the EU.[110] As a result, the EU's broader aim of achieving climate neutrality by 2050, necessitates a significant reduction in energy consumption and carbon emissions in the building sector. Energy efficiency regulations apply to new housing units in line with energy efficiency requirements and affect the renovation of the existing housing stock, as part of the drive to climate neutrality.[111] These include the recent Energy Performance of Buildings Directive (EPBD). This mandates Member States to establish minimum energy performance standards for both new and existing buildings. This can increase the cost of building, pushing up house prices. However, cost of energy itself has an important affordability component: while more energy intensive building may be cheaper to construct and therefore to own, they are more expensive to run, adding to household costs.[112] In addition, the large investment required to improve the energy efficiency of the worst-performing buildings (which often includes historic buildings) could put pressure on rental prices, as landlords are faced with a common cost increase that they would want to pass onto renters, at least in part. This could hamper housing affordability, if rent increases exceed the savings generated from lower energy consumption. For this reason, many governments adopted subsidies to the cost of the renovation and established renovation programmes. Mandatory certificates on energy efficiency of the building (with EPC score from A to F) seem

[106] The score for dealing with construction permits takes into account the procedures, time, and cost of dealing with construction permits, as well as the building quality control index that evaluates the quality of building regulations, the strength of quality control and safety mechanisms, liability and insurance regimes and professional certification requirements.

[107] Days to complete all construction procedures captures the "calendar days" required to complete all formalities to legally build a warehouse. It includes time for obtaining permits, undergoing inspections, connecting to utilities and receiving final approval

[108] The transfer of property costs is the total of official costs associated with completing the procedures to transfer the property, expressed as a percentage of the property value.

[109] The quality of land administration considers the reliability of infrastructure, transparency of information, geographic coverage, land dispute resolution and equal access to property rights.

[110] https://www.eea.europa.eu/en/analysis/indicators/greenhouse-gas-emissions-from-energy

[111] In 2020, the European Commission adopted an initiative *A Renovation Wave for Europe - greening our buildings, creating jobs, improving lives* aimed at enhancing the energy performance of buildings across the EU. This initiative is a key component of the European Green Deal, and its key objective was to double the annual energy renovation rate of residential and non-residential buildings by 2030. By improving the energy efficiency of buildings, the initiative seeks to reduce energy consumption and greenhouse gas emissions.

[112] "Addressing Housing Affordability and Energy Poverty: A Dual Challenge for the EU", JRC, Science for Policy Brief, notes that rising housing costs and inefficient buildings intensify the financial burden on households, limiting access to essential energy services. In 2023, 18.5% of EU households lacked adequate insulation or heating systems to keep their dwellings comfortably warm.

to have a visible impact on the prices of the buildings in EU countries, with empirical evidence confirming that low efficient building being sold at discount.[113]

The national implementation of EU building regulations on energy efficiency is a source of differences in building regulations. Although the EU has several directives that affect energy consumption and carbon emissions in the building sector, Member states have the autonomy to implement this directive according to their national contexts. This results in varying degrees of centralisation and regulatory stringency. The regulations include a range of modalities, including mandatory energy performance certificates, incentives for energy-efficient renovations, and specific requirements for mandatory nearly zero-energy buildings (NZEBs) for new construction. The stringency and specific implementation measures differs significantly across countries, reflecting local priorities and administrative structures, and is a source of considerable differences in building regulations.

Table 2: **Construction regulation**

	DEALING WITH CONSTRUCTION PERMITS (SCORE)	DAYS TO COMPLETE ALL CONSTRUCTION PROCEDURES	TRANSFER OF PROPERTY COSTS (% OF PROPERTY VALUE)	QUALITY OF LAND ADMINISTRATION (INDEX 0-30)
BELGIUM	75.5	212	12.7	22.0
BULGARIA	75.9	97	2.8	19.5
CZECHIA	56.2	246	0.0*	25.0
DENMARK	87.9	64	0.6	24.5
GERMANY	78.2	126	6.6	23.0
ESTONIA	82.6	103	0.5	27.5
IRELAND	76.6	164	6.5	23.5
GREECE	69.5	180	4.8	4.5
SPAIN	70.8	147	6.1	22.5
FRANCE	74.3	213	7.3	24.0
CROATIA	57.8	146	3.0	23.5
ITALY	68.3	189.5	4.4	26.5
CYPRUS	64.2	507	7.7	23.0
LATVIA	73.5	192	2.0	22.5
LITHUANIA	84.9	74	0.8	28.5
LUXEMBOURG	83.9	155	10.1	25.5
HUNGARY	67.0	192.5	5.0	26.0
MALTA	73.5	179	13.5	12.5
NETHERLANDS	69.4	161	6.1	28.5
AUSTRIA	75.1	222	4.6	23.0
POLAND	76.4	137	0.3	19.0
PORTUGAL	73.2	160	7.3	20.0
ROMANIA	58.4	260	1.3	17.0
SLOVENIA	65.3	247.5	2.2	23.0

[113] Frondel, M, A. Gerster, and C. Vance (2020): The power of mandatory quality disclosure: Evidence from the German housing market, *Journal of the Association of Environmental and Resource Economists*, Vol. 7, Issue 1, pp 181 – 208, Damen, S. and T. van Kempen (2025), Mandatory energy efficiency disclosure policies and house prices, *Journal of Housing Economics*, Vol. 67, 102043, Amaral, F., M. Soufflet, J. Zdrzalek and S. Zetzmann (2024) Green signals: Energy efficiency and German housing markets, Kiel Policy Brief 180, Kiel Institute for the World Economy (IfW Kiel), Loberto, M., A. Mistretta and M. Spuri (2023): The capitalization of energy labels into house prices. Evidence from Italy, Occasional Papers No. 818, Bank of Italy.

SLOVAKIA	59.4	300	0.0	25.5
FINLAND	75.9	65	4.0	26.5
SWEDEN	78.0	117	4.3	27.5

Source: World Bank, doing business database, data for 2020.

Notes: See footnotes 106, 107, 108 and 109.

(*) transfer tax for cz was eliminated in 2020.

The building permitting process consists of multiple steps with significant differences across EU countries. The building permit process is vital to ensuring regulatory compliance in the construction industry. It is usually an inherent part of building regulation and includes rules for enforcement. It involves central, regional and local public authorities and numerous private actors. These include the applicant, developer and building supervisor. The building permit procedure involves several steps, starting with the application and the approval of the plan and moving through to inspections of the building site and supervision.[114] There are different levels of implementation of electronic case handling of the building permit. Table 3 summarises the main procedures available across EU countries. In all EU countries, there is a regular procedure and there are construction works exempt from permit procedure. Building notice procedures also exist in most countries. In half of EU countries, there is a combined permit procedure for planning demands and technical requirements. In half of the EU countries, itis possible to apply for a regular permit in several phases. In approximately half of the EU countries there is some involvement of public parties in site inspections. In about half of the EU countries, a final site inspection, conducted by the building authorities and other authorities, is required. In the other half, the building authorities rely on declarations by the private bodies that conducted the building work or the site inspections. In all EU countries, the applicant must pay a fee to obtain a building permit. However, there is a wide variation as to how the value of fee is determined, which may be based on construction costs, the floor area, the intended building use or may be a fixed fee. In most EU countries there are fixed procedure times in which the permit has to be issued, ranging from 3 weeks in Lithuania to up to 31 weeks in Portugal. In some countries (such as Cyprus, Denmark, Latvia, Luxembourg, Slovakia and Sweden) there is no fixed time set. In addition to long processing times, the permitting process in some countries is burdened by complex documentation requirements, which may create unnecessary delays and administrative burdens. A review of such requirements, with a view to simplification—such as reducing the number or complexity of documents required where appropriate—could contribute to greater efficiency.

The building permit process can be improved by digitalisation and procedural simplification. Current permitting systems, face efficiency and transparency challenges, and are often based on analogue processes. Digitalisation has the potential to address these issues by using digital tools and data. However, digitalisation should be accompanied by a simplification of procedural and documentary requirements, to ensure that technology does not merely replicate inefficient processes in digital form. However, making the transition is complex due to the involvement of diverse stakeholders and governance aspects. A reference framework to categorise and interpret building permit information could be useful and could aid the standardisation across different systems. The European Network for Digital Building Permits (EUnet4DBP) is studying building permit systems across Europe to identify best practices and lessons learned.[115]

[114] Branco Pedro, J., Meijer, F. and H. Visscher (2011): Comparison of building permit procedures in EU Countries. Mimeo, TU Delft.

[115] Fauth, J., T. Bloch, F. Noardo, N. Nisbet, S.B. Kaiser, P. Nørkjær Gade, and J. Tekavec (2024): Taxonomy for building permit system - organizing knowledge for building permit digitalisation. *Advanced Engineering Informatics*, Vol. 59, 102312.

Table 3: **Building permit procedures in EU countries**

	Austria	Belgium	Bulgaria	Cyprus	Czech Republic	Denmark	Estonia	Finland	France	Germany	Greece	Hungary	Ireland	Italy	Latvia	Lithuania	Luxembourg	Malta	Netherlands	Poland	Portugal	Romania	Slovakia	Slovenia	Spain	Sweden
Exemptions	■	■	■	■	■	■	■	■	■	■		■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Building notice	■		■		■	■	■	■	■				■	■	■		■	■		■	■		■	■		■
Light procedure							■	■		■			■		■	■			■				■		■	
Regular procedure	■	■	■	■	■	■	■	■	■	■		■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Regularization																				■						
No information											■															

Source: Branco Pedro, J., Meijer, F. and H. Visscher (2011): Comparison of building permit procedures in EU countries. TU Delft.

6.3. LAND USE AND ZONING REGULATION

Land use regulation is a critical determinant of housing supply, often exerting upward pressure on house prices while aiming to serve other objectives, including environmental ones. The planning system aims to balance environmental, social, and economic welfare, but inherently involves trade-offs that can affect housing availability and affordability. Over the decades, zoning, land use and density regulations have increased, aiming at diverse objectives. These regulations, which include restrictions on the total number of housing units, urban growth limitations, or regulation of minimum or maximum floor area size, are managed by a variety of national actors and often conflict with the need to boost housing supply. The economic literature unambiguously confirms that stricter land use regulation correlates with reduced construction, leading to lower housing supply and higher house prices. [116] Easing land-use regulations and fostering a business environment that encourages housing construction can help to mitigate macroeconomic effects of a housing downturn.[117] However, it can undermine critically important environmental objectives if not undertaken with due care.

Municipal control over land-use and zoning regulations can lead to local priorities weighing housing affordability. Land-use and zoning regulations are predominantly under the jurisdiction of sub-national authorities, with local governments typically holding the primary responsibility. This decentralised approach allows for tailored urban planning that addresses specific community needs but also results in a diverse landscape of regulatory frameworks across different regions.[118] It can result in local interests impeding national objectives, particularly when the legislation provides for individuals to have a say in the planning process. Where possible, incumbent property owners tend to block construction projects located close to their properties and also back string zoning regulations. In residential areas, municipalities can impose various additional regulations that impact housing development. For example, minimum

[116] Gyourko, J. and R. Molloy (2015): "Regulation and housing supply", In Handbook of regional and urban economics (Vol. 5, 1289-1337), Elsevier. Molloy, R. (2020): The effect of housing supply regulation on housing affordability: A review. *Regional science and urban economics*, Vol. 80(C), 1-5. Büchler, S. and E. Lutz (2024): Making housing affordable? The local effects of relaxing land-use regulation. *Journal of Urban Economics*, Vol. 143, 103689. Büchler, S, and M. Ehrlich (2023): Quantifying land-use regulation and its determinants. *Journal of Economic Geography*, Vol. 23, Issue 5, 1059–1096.

[117] Albuquerque et al. (2025).

[118] OECD (2017): *The Governance of Land Use in OECD Countries: Policy Analysis and Recommendations*. OECD Publishing, Paris. Hanberry, B. B. (2023): Urban Land Expansion and Decreased Urban Sprawl at Global, National, and City Scales during 2000 to 2020. *Ecosystem Health Sustainability*, Vol. 9, 0074.

construction lot sizes can restrict the density of housing, effectively limiting the number of homes that can be built in a given area.[119] Similarly, minimum parking requirements, which mandate a certain number of parking spaces per unit, can significantly increase the cost of development and reduce the feasibility of constructing new housing.[120] These regulations, while often intended to preserve neighbourhood character or reduce congestion, can inadvertently constrain the supply of new housing and contribute to affordability challenges.

The overall designation of land use can result in very different housing landscapes. At the highest level, the degree of mixed-use development permitted versus exclusive zoning is a critical consideration. Mixed-use zoning, which allows for residential, commercial, and sometimes industrial uses within a single area, has gained attention for its potential to create vibrant, walkable communities and reduce reliance on private vehicles.[121] In contrast, exclusive zoning often leads to urban sprawl and increased segregation of land uses, which can exacerbate traffic congestion and limit housing diversity.[122] One of the key aspects of zoning regulation is the ability to alter existing plans. The flexibility to modify zoning plans is crucial for adapting to changing demographics, economic conditions, and environmental challenges. However, the process can be contentious and slow, often encountering resistance from established residents or interest groups.

6.4. THE REGULATION OF RENTAL MARKETS

The regulation of rental markets is widespread in EU countries and affects their flexibility. Rental regulation is widespread in Europe, more than in other developed economies, and is closely linked to tenure status (see Section 7.1). Rental regulation can take different forms. It can apply either for all or for a subset of renters and can apply to the level of the initial rent or to rent increases. It can be geographically restricted to specific areas, such as large cities, and time dependent, applying to rental contracts concluded before a pre-defined date.[123] The regulation of rents, which is the main tool of rental market regulation, has been gradually softened over recent last decades, although there has been a recent increase since the pandemic.[124] Over time, other regulations such as eviction protection or minimum contract duration have been introduced. [125]

Rent control measures exist in many Member States but differ in scope. Table 4 summarises the main rental control measures in place. These may be on the initial rent and/or on regular increases, and there may be rules on tenant-landlord relations, lease types and duration, the quality of rental homes, and short-term rental holidays, as well as on energy efficiency criteria. Several EU countries, including Germany, the Netherlands, and Sweden have systems with regulated rent increases. Rental regulation is sometimes accompanied by other support measures, such as tax relief related to rental costs.

Rent indexation mechanisms apply in some Member States but are not widespread. Although a number of countries have mechanisms restricting the possible indexation of existing rents, these take a number of forms. In Italy, only certain types of rent contracts are linked to inflation. In Belgium, rents can increase according to an index derived from the national consumer price index (CPI) excluding tobacco,

[119] Gyourko, J. and S. McCulloch (2023): Minimum lot size restrictions: Impacts on urban form and house price at the border. NBER Working Paper, No. 31710. ESPON (2020): *SUPER – Sustainable Urbanisation and land-use Practices in European Regions*, ESPON, Luxembourg.

[120] Gies, J., M. Hertel, and S. Tully (2021): *Parking standards as a steering instrument in urban and mobility planning - How to make parking standards more sustainable.* CIVITAS Initiative – Park4SUMP project.

[121] Mandelker, D. R. (2023): *Zoning for mixed-use development*. Springer.

[122] OECD (2018): *Rethinking Urban Sprawl: Moving Towards Sustainable Cities*. OECD Publishing, Paris.

[123] Kettunen, H. and H. Ruonavaara (2021): Rent regulation in 21st century Europe: Comparative perspectives. *Housing Studies*, Vol. 36, Issue 9, 1446-1468.

[124] ECB (2023): Rent inflation in the euro area. ECB Economic Bulletin, Issue 7/2023. FEANTSA (2021): *Sixth overview of housing regulation in Europe 2021*. FEANTSA – Fondation Abbe Pierre.

[125] Kholodilin, A. (2024): Rent control effects through the lens of empirical research: An almost complete review of the literature. *Journal of Housing Economics*, Vol. 63.

alcohol and fuel products. In France rent increases through indexation have recently been capped at 3.5%. In Spain, a price growth cap of 2% was established for 2023 and a cap of 3% for 2024. Currently, rents during the contract term (five or seven years) cannot increase by more than a reference index closely tied to the general consumer price index. In Germany, rents are generally linked to a reference rent for similar-quality dwellings in the same locality, established at regular intervals (usually every four to six years). This makes the adjustments generally quite sluggish. However, some indexation also exists in Germany and is triggered by certain thresholds for CPI changes being crossed.

The regulation of rental markets affects housing market developments, with ambiguous effects on housing affordability, renovations and housing supply. [126] Rent regulation typically reduces the sensitivity of rents to factors such as house prices, construction costs, and inflation. While rent caps can provide short-term relief by limiting increases during periods of rental pressure, they can also lead to higher rents in uncontrolled markets.[127] Over time, excessive regulation can create dual markets and decrease rental property availability due to lower returns, which may shift the supply away from regulated areas and contribute to gentrification.[128] Rent regulation also tends to slow down renovations as landlords might find it difficult to pass on at least part of the related costs. Additionally, stringent rent controls can inflate house prices and increase homelessness, [129] as they often lead to mismatches between supply and demand with heterogenous effects across income groups.[130] This imbalance may encourage speculative housing bubbles and excessive household debt as more people are pushed toward home ownership, potentially destabilising economic resilience during financial crises. [131] Although preferential rental contracts can support vulnerable renters, they may also discourage relocation, thereby limiting labour mobility, particularly among low-wage workers. [132]

[126] Breidenbach, P. L. Eilers and J. Fries (2022): Temporal dynamics of rent regulations – The case of the German rent control. *Regional Science and Urban Economics*, Vol. 92, 103737. Sagner, P. and M. Voigtländer (2022): Supply side effects of the Berlin rent freeze. *International Journal of Housing Policy*, Vol. 23, Issue 4, 692–711. Wilhelmsson, M. (2023): Demand for rent-regulated apartments in the Swedish housing market. *Housing Studies*, Vol. *39*, Issue 12, 3092–3116. O'Toole, C., M. Martinez-Cillero and A. Ahrens (2021): Price regulation, inflation, and nominal rigidity in housing rents. *Journal of Housing Economics*, Vol. 52, 101769. Voigtländer, M. and C. Whitehead (2023): Rent controls - a timeless and controversial intervention. *International Journal of Housing Policy*, Vol. 23, Issue 4, 661–670. Monras, J. and J. G. Montalvo (2025): The Effect of Rent Controls along the 'Excess' Price Distribution. CEPR Discussion Paper, No. 20018.

[127] Kholodilin (2024).

[128] Baye, V. and V. Dinger (2024): Investment incentives of rent controls and gentrification: Evidence from German micro data. *Real Estate Economics*, Vol.52, Issue 3.

[129] Coulson, N.E. (2025): Tenant rights, eviction, and rent affordability. *Journal of Urban Economics*, Vol. 147

[130] Stacy, Ch. P., T. Hodge, T. M. Komarek, Ch. Davis, A. Stern, O. Noble, J. Morales-Burnett and A. Rogin (2025): Rent control and the supply of affordable housing. *Journal of Housing Economics*, Vol. 68.

[131] Cuerpo, C., S. Kalantaryan and P. Pontuch (2014): Rental Market Regulation in the European Union, European Economy – Economic Papers, No. 515. Kholodilin, K. A. and S. Kohl (2023): Social policy or crowding out? Tenant protection in comparative long-run perspective. *Housing Studies*, *38*(4), 707-743.

[132] Barceló, C. (2006): Housing tenure and labour mobility: A comparison across European countries. Banco de Espana, Documentos de Trabajo, No. 0603.

Table 4: **Rental market regulation and support for rentals**

	CONTROL OF INITIAL RENT LEVELS[1]	CONTROL OF REGULAR RENT INCREASES[2]	CONTROL OF MINIMUM LEVEL OF QUALITY[3]	SHORT-TERM HOLIDAYS RENTAL REGULATION[4]	TAX RELIEF RENTAL COST[5]
BELGIUM	Free	Yes	Size and comfort	Yes	
BULGARIA		No	No	No	
CZECHIA	Free	No	No	Yes	
DENMARK	Rent levels set for dwellings built before 1991	Yes, based on net price index	Yes	Yes	Yes
GERMANY	Regulation limits the free setting of rent levels in certain areas (reference level + 10%)	No	Yes	Yes (local regulations in big cities)	Yes
ESTONIA	Free	No	Yes (general minimum size requirements for dwellings)	No	Yes
IRELAND	Free / regulated	Yes. Rent increases are limited in rent pressure zones.	Yes (comfort)	Yes (time limit)	Yes
GREECE	Free	No	No	Yes	
SPAIN	Rent controls in certain designated stressed areas. Free in other locations	No, but for 5 to 7 years, the annual rent increase cannot exceed the general price index.	Yes	Yes (local regulations in big cities)	Yes (regional policies limited to tenants below a certain income threshold)
FRANCE	Rent regulation on 40% of rental sector.	Yes	Yes (size, comfort and energy efficiency)	Yes (local regulations in big cities)	Yes
CROATIA	Rent control to tenants from particular social groups.	No	Minimum size		
ITALY	Free / regulated for leases with agreed rents in some municipalities	Yes	Yes (comfort)	Yes (tax treatment)	Yes
CYPRUS	Free	Yes			
LATVIA	Free	No	No	No	
LITHUANIA	Free	No	Yes (type of dwelling)		
LUXEMBOURG	Regulated: yearly rent level cannot exceed 5% of invested capital	No	Yes (size and comfort)	No	
HUNGARY	Free	No	No		

MALTA	Free	No	Planning rules on decent dwellings	No	
NETHERLANDS	Free	Yes, rent increases capped at inflation + 1 pp annually	Yes (comfort)	Yes (local regulations)	
AUSTRIA	Free / regulated for some of the housing stock	Yes. In selected cases, biannual rent increases or when CPI>5%	Yes (size, comfort)	Yes (taxes)	
POLAND	Free	Yes. Rent increases limited (frequency + justification above 3% replacement value)	No	Yes	
PORTUGAL	Free	Yes. General rents increase with price index.	Yes (comfort, energy certificate)	Yes	Yes
ROMANIA	Free	No	Yes (size)		Yes
SLOVENIA	Free	No	Yes (size, comfort)	Yes	
SLOVAKIA	Free	No	Yes (technical quality set in construction law)	No	
FINLAND	Free	Yes	Yes (size, comfort)	No	Yes
SWEDEN	Free but rents cannot exceed comparable units by too far.	Yes. Rent increases collectively bargained.	Yes (comfort)	No	

Source: OECD questionnaire on affordable and social housing; oecd (2021), Brick by brick: building better housing policies.

Notes:

1. Control of initial rent levels refers to whether initial rents for new rental contracts are freely negotiated between landlords and tenants or regulated by specific rules that limit the amount landlords can charge at the start of a lease.

2. Control of regular rent increases captures whether there are legal mechanisms that regulate how and when rents can be increased during a tenancy. these may include indexation to inflation (e.g., cpi), cost-based adjustments (e.g., allowing rent increases if landlord costs rise) or fixed caps or formulas set by law.

3. Control of minimum level of quality assesses whether there are regulations ensuring a minimum standard for rental housing. it includes the existence of quality standards, the level of government responsible for enforcement (e.g., national, regional, municipal) and definitions of what constitutes a "decent" dwelling (e.g., heating, sanitation, safety).

4. Short-term holiday rental regulation refers to whether and how short-term rentals (like airbnb) are regulated. it includes whether a permit is required, if there are limits on the number of rental days per year, if there is a tax treatment specific to short-term rentals and the level of government responsible for regulation.

5. Tax relief on rental costs looks at whether tenants receive tax relief for rental expenses. it includes the eligibility criteria, whether the relief is universal or targeted and the form of relief (e.g., tax deduction, credit, or allowance).

6.5. SOCIAL HOUSING AND ALTERNATIVE MODELS OF AFFORDABLE HOUSING

The concept of social housing varies significantly across the EU, and its prevalence has been declining over time. Social housing most often takes the form of rental housing at regulated prices, often (but not always) provided by the public sector or by bodies with a specific mandate to provide affordable housing. However, other forms are possible; social housing can also include properties for sale at below market value and under restrictive conditions. Although European countries with well-developed welfare systems were early adopters of social housing, its role has diminished throughout the EU in the last decades.[133] There has been evidence of *residualisation* of the subsidised rental housing in the EU over recent decades. This means that social housing provides a safety net for a smaller set of households than previously and results in a growing gap between rents in this segment and market rents.[134]

The definition, objectives, size, financing, and eligibility criteria for social housing differ from country to country. Table 5 presents key data on the provision of social housing. Among the EU countries, only the Netherlands, along with Denmark, Austria, and Sweden, have significant social housing sectors. Austria has a strong tradition of social housing, with Vienna being a notable example of extensive municipal housing projects.[135] Denmark and Austria serve as exemplary models of support to the construction sector of social housing. Sweden also maintains a considerable share of social housing, although it has faced challenges regarding targeting and accessibility; this has also been the case in the Netherlands. In Ireland, the social housing sector faces significant challenges in meeting growing demand. France also has a medium-sized social housing sector known as "HLM" (*habitations à loyer modéré*), which plays a crucial role in providing affordable housing to a relatively large segment of the population in some cities, though it sometimes struggles with issues of accessibility and distribution. [136] In Italy and Spain public policies supported the development of an *affordable* housing sector which is in-between rented social housing and the private rental market. In Spain 'social' housing can refer to dwellings being sold at reduced rates to eligible households, usually funded by construction such 'social apartments' on government-owned land. In contrast, most Central and Eastern European countries privatised their public housing stock during economic transitions, resulting in limited social housing and high homeownership rates.

Investing in social housing can help alleviate supply bottlenecks and enhance housing affordability for low-income households. When well-targeted, social housing allows governments to provide affordable homes directly to low-income households, expanding the housing supply without exacerbating demand, unlike housing allowances. Prioritising groups such as young people and those at risk of housing exclusion or homelessness can maximise the social impact of limited resources. Additionally, social housing enables the state to capture any economic rent generated from property ownership, which can be reinvested to boost economic efficiency. Finally, investing in social housing reduces housing insecurity for the socioeconomically disadvantaged.[137] It can play an important role in preventing homelessness. Although public investment in housing construction has significantly declined across the EU in recent decades, other strategies such as grants, preferential loans, and tax deductions can effectively increase the availability of housing at below-market rents or prices. Nevertheless, at the current low levels of social housing provision in most Member States, a very substantial expansion would be needed to have a material impact on overall house prices. Some local authorities have implemented

[133] Scanlon et al. (2015): Social housing in Europe. *European Policy Analysis*, Vol. 17, 1-12. Whitehead, C. (2017): Social housing models: past and future. *Critical Housing Analysis*, Vol. 4, Issue 1, 11-20. Poggio, T. and C. Whitehead (2022): Social housing in Europe: Legacies, new trends and the crisis. *Critical Housing Analysis*, Vol. 9, Issue 1, 15-34.

[134] Angel, S. (2021). Housing regimes and residualization of the subsidized rental sector in Europe 2005-2016. *Housing Studies*, Vol. 38, Issue 5, 881–901.

[135] Kadi, J. and J. Lilius (2022): The remarkable stability of social housing in Vienna and Helsinki: a multi-dimensional analysis. *Housing Studies*, Vol. 39, Issue 7, 1607–1631.

[136] France introduced temporary tax breaks with additional tax credits to private investors increasing the supply of new housing at controlled rents.

[137] Park, G. R., B. K. and E. Baker, E. (2024): Housing systems, housing insecurity, and life satisfaction: a multilevel analysis of 158,765 individuals in 32 countries. *International Journal of Housing Policy*, 1–16.

development policies that increase incentives to convert offices and other commercial units into social housing in high-demand areas, though the positive impact of such policies has been found to be limited.[138]

Table 5: **Social housing and other housing-related support**

	RELATIVE SIZE OF THE SOCIAL RENTAL HOUSING STOCK, %, AROUND 2022	RELATIVE SIZE OF THE SOCIAL RENTAL HOUSING STOCK, %, AROUND 2010	GOVERNMENT SPENDING SUPPORTING RENTAL HOUSING, % OF GDP, AROUND 2022	HOUSING DEVELOPMENT SUPPORT, TYPE OF AID	HOUSING DEVELOPMENT SUPPORT, TENURE TYPE
BELGIUM	4.2	4.3	0.01		
BULGARIA					
CZECHIA	3.6		0.00	Grants and loans	Affordable rental dwellings
DENMARK	21.3	21.8	0.03		
GERMANY	2.6	3.7	0.07	Tax deduction, subsidised land	Both affordable owner-occupied and rental dwellings
ESTONIA	1.1	1.1	0.08		
IRELAND	12.7	12.7	0.00	Loan	Both affordable owner-occupied and rental dwellings
GREECE					
SPAIN	1.1	0.0		Tax deduction	Both affordable owner-occupied and rental dwellings
FRANCE	14.0	13.5	0.20	Tax deduction, tax relief, preferential loan	Affordable rental dwellings
CROATIA				Preferential loan	Affordable owner-occupied dwellings
ITALY	2.4	4.2			
CYPRUS					Affordable owner-occupied dwellings
LATVIA	1.9				
LITHUANIA	0.8				
LUXEMBOURG		1.6		Grant	Affordable owner-occupied dwellings
HUNGARY	2.6	3.0			
MALTA		5.5			

[138] Belloy, L. and F. Candau (2025): Promoting social housing: Insights from redevelopment policies in Paris, *Journal of Housing Economics*, Vol 68, 102061.

NETHERLANDS	34.1	38.3		Loans, grants, construction procedures	Both affordable owner-occupied and rental dwellings
AUSTRIA	23.6	24.0	0.21	grant, loans, and mortgage guarantees	Both affordable owner-occupied and rental dwellings
POLAND	6.6	10.1	0.05	Subsidised land	Affordable rental dwellings
PORTUGAL	1.1	2.0	0.02	Tax deduction, grant	Both affordable owner-occupied and rental dwellings & Public ownership for social rental and households' ownership for rehabilitation.
ROMANIA					
SLOVENIA	4.7	5.4			
SLOVAKIA	2.5	1.6	0.04	Loan	Affordable rental dwellings
FINLAND	10.9	13.2	0.05		
SWEDEN					

Source: OECD questionnaire on affordable and social housing. Data are not available for Bulgaria, Greece, Romania and Sweden.

6.6. TAX AND BENEFIT SYSTEMS

While home ownership is typically subject to tax either annually or at specific moments around property sale or purchase, many countries have specific tax mechanisms that aim to subsidise home ownership and incentivise debt, but which undermine affordability over time. Housing is subject to a range of taxes including property transfer taxes, ownership taxes (which include recurrent property taxes and wealth taxes), capital gain taxes and income taxes. In addition, many governments support home ownership through specific mechanisms. These may include tax rebates on mortgage interest payments, tax exemptions for capital gains on primary residences and preferential tax treatment for primary residences. They may be accompanied by other instruments such as grants and foreclosure prevention support. The taxation of property can include a tax bias in favour of owner occupation. This is primarily due to the fact that the imputed rents from home ownership go untaxed, unlike the rents from other investments, while the capital gains from selling owner-occupied houses are typically taxed favourably or not at all. The housing tax setup has different implications on tax revenues, house prices, the arbitrage between home ownership and renting. All these can have wider economic consequences, including on labour mobility and capital transmission. Overall, the effect of many of these measures - which can be fiscally significant and cost up to 1.3% of GDP in the Netherlands and 0.3% in Luxembourg – is to increase house prices and transfer the value to landlords.[139]

Most EU countries have some form of housing transaction taxes despite their distortive effects. Transaction taxes (as shown in Table 6) apply when a property changes ownership; they are generally paid by the new owner and their tax base is usually the purchase price.[140] Newly built residential properties are usually exempt of the transfer tax but are instead subject to value added tax (VAT), sometimes at a reduced rate. This VAT is sometimes interpreted as a proxy for the VAT that would

[139] EC (2015): Housing taxation: from micro design to macro impact, Quarterly report on the euro area, N°14.

[140] OECD (2022): Housing Taxation in OECD Countries, OECD Publishing, Paris.

otherwise apply to the flow of housing services over time, namely imputed rents.[141] In 2023, 22 Member States had transfer taxes on housing, with rates varying from a negligible 0.1% in BG to 7% in LU. Five Member States had no housing transfer tax (Czechia, Estonia, Lithuania, Romania, Slovakia). Transaction taxes are widespread due to their advantages. They have a clear tax base related to the market value of assets and are difficult to avoid. Transaction taxes are assumed to stabilise housing markets by reducing speculative purchases, but the empirical evidence does not clearly confirm that high transaction taxes lower house price volatility and reduce the risk of bubbles.[142] Furthermore, these taxes are distortive and reduce the residential mobility of homeowners and therefore labour mobility. Economic studies find that transaction taxes can have adverse effects.[143] They lead to higher buy-to-lend transactions but lower buy-to-own transactions, hence reducing homeownership rates and increasing the demand for rental housing.[144]

Recurrent taxes on residential property can be an efficient source of taxation and reduce speculative demand. Recurrent taxes on immovable property can capture economic rents that accrue to homeowners from house price growth, which results from the scarcity of land. As they apply to a stable tax base, they are difficult to avoid. While recurrent property taxation is implemented in most EU countries, it is not applied in six Member States (Cyprus, Estonia, Croatia, Hungary, Italy, Malta). Different rates may apply to the main residence and other types of property, such as secondary residences or homes owned as investment assets. Recurrent property taxes typically represent a large share of property taxes and a major source of revenue for local governments. At the same time, tax revenues have generally not grown in line with house prices, notably because recurrent taxes are levied on outdated property values.[145] The reluctance of governments to increase revenues from such taxes comes from a variety of factors: taxes on residential property are highly visible, assessing and updating the relevant tax base is often contentious, and, given that residential taxes are often paid to local authorities, an increase may require balancing out revenues at different government levels. In addition, property taxes can be perceived as unfair as they are not related to the taxpayer's current ability to pay, making them unpopular. In addition to recurrent taxes on immovable property, housing can be subject to wealth-type of taxes (Spain, France, the Netherlands), although the primary residence generally benefits from tax rebates.[146]

Other taxes on housing include capital gains taxes, inheritance taxes and income taxes. The taxation of capital gains applies to the accumulated increase in value at the time of sale. It can reduce the incentive to invest in housing for speculative purposes. However, as other forms of capital gains – such as gains on stocks or investment funds – are typically taxed more highly, investing in housing can be relatively favourable from a taxation perspective. This can lead to a diversion of investment funds away from productive investments into housing. The tax treatment of capital gains on housing may differ depending on various criteria, such as the holding period and the type of investment (main residence vs. rental investment). Capital gains on the main residence are typically tax exempt, which provides a greater advantage to the wealthier households. Policy recommendations from the OECD suggest capping this exemption. In most countries, housing rents are subject to income tax but the taxation of imputed rents for home ownership is generally tax exempt. Imputed rents of homeowners are taxed in the

[141] Conceptually, if imputed rents are treated as income they would fall under personal income taxation, while if they are seen as consumption of a durable good, they would be subject to VAT. Since future increases in property value are excluded from the VAT base, transaction, registration and stamp duties partly act as substitutes for this non-existing VAT on value gains—though imperfectly and with additional distortions.

[142] Macroprudential measures were found to be more suitable for this purpose. See e.g. Crowe, Ch., G. Dell'Ariccia, D. Igan, and P. Rabanal (2011): How to Deal with Real Estate Booms: Lessons from Country Experiences. IMF Working Paper, No. 11/91.

[143] Hilber, Ch.A.L. and T. Lyytikäinen (2017): Transfer taxes and household mobility: Distortion on the housing or labor market?, *Journal of Urban Economics*, Vol. 101, 57-73. Eerola, E., O. Harjunen, T. Lyytikäinen and T. Saarimaa (2019). Effects of Housing Transfer Taxes on Household Mobility, CESifo Working Paper Series, No 7750.

[144] Han, L., *et al.*, (2023), The effects of transaction taxes on housing markets, VoxEu Column.

[145] OECD (2022).

[146] For instance, in Spain, the primary residence benefits from a €300,000 deduction, whereas in France, it receives a 30% valuation reduction for wealth tax purposes. In contrast, the Netherlands includes the full value of the primary residence in its wealth tax base without specific exemptions.

Netherlands,[147] and few Member States (Denmark for instance) have substitute taxation in the form of owner-occupation property taxes.

Table 6: **Housing-related taxes, 2023**

COUNTRY	TRANSFER TAX	RECURRENT PROPERTY TAX (IMPLICIT RATE)	CAPITAL GAINS TAX (*)	OTHER TAXES / FEATURES
BELGIUM	6.0	0.6	0.0	Mortgage interest tax relief
BULGARIA	0.1	0.1	10.0	
CZECHIA	0.0	0.1	0.0	Mortgage interest tax relief
DENMARK	0.7	0.6	42.0	Mortgage interest tax relief
GERMANY	5.3	0.1	26.4	
ESTONIA	0.0		20.0	Mortgage interest tax relief
IRELAND	1.0	0.1	33.0	
GREECE	3.0	0.7	15.0	
SPAIN	6.0	0.6	28.0	
FRANCE	5.8	0.8	34.0	
CROATIA	3.0		12.0	
ITALY	2.0		26.0	Mortgage interest tax relief
CYPRUS	5.9		20.0	
LATVIA	2.0	0.1	20.0	
LITHUANIA	0.0	0.1	20.0	
LUXEMBOURG	7.0	0.1	0.0	Mortgage interest tax relief
HUNGARY	4.0		15.0	
MALTA	2.0		0.0	
NETHERLANDS	2.0	0.4	33.0	Imputed rent, mortgage interest tax relief
AUSTRIA	3.5	0.0	27.5	
POLAND	2.0	0.7	19.0	
PORTUGAL	3.4	0.3	28.0	
ROMANIA	0.0	0.3	10.0	
SLOVENIA	2.0	0.1	0.0	
SLOVAKIA	0.0	0.0	0.0	
FINLAND	4.0	0.2	34.0	
SWEDEN	1.5	0.4	30.0	Mortgage interest tax relief

Source: JRC, Housing Taxation Database, Tax Foundation Europe.

Notes: The transfer tax denotes the minimum tax rate on the transfer of property. The property tax measures the tax revenues from recurrent property taxation measured as a percentage of the value of the stock of dwellings.

[147] This is part of personal income tax, though the values for imputed rents used are usually lower than market rents.

The introduction of a land value tax could help dampen house prices but is subject to difficulties that require careful planning and a gradual operationalisation. In some EU countries, land ownership is highly concentrated and used as wealth accumulation strategy and is mostly untaxed unlike other capital gains.[148] Only taxing capital gains from land sales when they accrue may in many cases mean no taxation of rents for many generations, because no sale takes place. By contrast, a recurrent land tax can regularly capture part of the economic advantage that comes from owning land. This has an adverse impact on housing supply and puts upward pressure on house prices. While the incentives attached to a land tax favour economic growth, the imposition of the tax introduces a windfall loss on the owners of property. This means that any introduction or increase of such a tax needs to be done gradually, taking into account the impact on highly leveraged individuals and ensuring that it is calibrated to dampen speculation in the future. In parallel, in order to work effectively, land taxes require reliable and up-to-date information on land values, which may not be readily available but could be estimated.[149]

The favourable tax treatment of homeownership inflates house prices and disproportionately benefits higher-income households. Fiscal homeownership policies have grown since the 1980s, with fiscal exemptions being the main policy tool and fiscal measures favouring homeownership reaching 1% of GDP in some Scandinavian countries.[150] Tax relief measures—such as exemptions on purchase-related costs and deductions for mortgage interest—encourage home buying and increase borrowing, particularly in markets with limited housing supply. Some Member States apply mortgage interest relief for all mortgages, e.g. Estonia, Luxembourg and the Netherlands. In some Member States where the mortgage interest tax relief was abolished, the measure only applies to mortgages taken before the tax relief was dropped (for example Lithuania and Portugal).[151] Generally, this beneficial tax treatment contributes to rising house prices, particularly in inelastic supply markets, and provides windfall gains to property owners, which can be regressive. [152] Mortgage interest tax relief encourages debt uptake, potentially fuelling credit-driven housing booms, increasing price volatility, and potentially reducing homeownership among financially constrained households. Such relief tends to benefit higher-income households more, exacerbating income inequality. [153] Subsidies for home buyers alongside relatively loose borrower-based measures were found in some European countries to support the housing price pressures, and ultimately hampering housing affordability. Despite recommendations from the ESRB and OECD to limit mortgage-related tax relief, political resistance to reform remains strong in several countries. [154]

Homeownership support across the EU increasingly relies on direct subsidies rather than public housing, with varied national approaches. As shown in Table 7, most EU countries offer mortgage subsidies or guarantees—except Portugal and Sweden—and nearly all provide tax relief, with the exception of Germany and Lithuania. Estonia, Germany, Hungary, Latvia, Luxembourg, and the Netherlands offer

[148] Paccoud, A., *et al.*, (2022), Land and the housing affordability crisis: landowner and developer strategies in Luxembourg's facilitative planning context, Housing Studies, Vol. 37, Issue 10.

[149] A pure land value tax – which excludes the value of the buildings built on the land – might suffer from a lack of up-to-date land values, whereas overall property values (including values of land and of buildings) might be more readily available. This may contribute to governments choosing taxes on overall property values over land value taxes. These difficulties mean that any move towards a land value tax requires careful preparation and communication, in order to ensure a successful introduction with the least disruption to existing property owners.

[150] Kholodilin, K., *et al.*, (2022): *The hidden homeownership welfare state: an international long-term perspective on the tax treatment of homeowners*. Cambridge University Press.

[151] The Netherlands reduced somewhat the high level of mortgage interest rate deductibility and adjusted transaction taxes. In Portugal, mortgage interest relief only applies to mortgages taken before 2012 and in Lithuania to those taken before 2009. See: Leodolter A., S. Princen and A. Rutkowski (2022a): Immovable property taxation for sustainable and inclusive growth. European Economy - Discussion Paper, No. 156.

[152] Vangeel, W., L. Defau and L. De Moor (2022): The influence of a mortgage interest deduction on house prices: evidence across tax systems in Europe. *The European journal of finance*, Vol. 28, Issue 3, 245-260.

[153] For a discussion of the home ownership tax bias and the impact of mortgage interest tax relief see Leodolter et al. (2022a) and Leodolter A. and A. Rutkowski (2022): The Fiscal and Distributional Effects of Removing Mortgage Interest Tax Relief in EU Member States. European Economy - Economic Briefs, No. 72.

[154] Stellinga, B. (2022): Housing financialization as a self-sustaining process. Political obstacles to the de-financialization of the Dutch housing market. *Housing Studies*, Vol. 39, Issue 4, 877–900.

grants or subsidies for homebuyers. By contrast, mortgage interest tax relief has been progressively phased out across the EU, and only a minority of Member States continue to grant it for new mortgages. It remains in place in countries such as Belgium, Czechia, Estonia, Italy, Luxembourg, the Netherlands, Finland, and Sweden, while in others—including Ireland, Spain, France, Lithuania, and Portugal—it applies only to older mortgages taken out before legal changes.[155] The support for homeownership can also take the form loan subsidies, possibly contributing to house price increases.[156]

Several EU countries use housing benefits for low-income households who rent. The common housing subsidy programme is aimed at low-income tenants, who may not afford either to buy their own house nor pay market rents, while government does not dispose of a sufficient stock of social rental housing. The outcomes of such programmes vary: in the Netherlands, tenant support has shown positive effects, while in Finland, housing allowances have not reduced rents. [157]

Tax is also used to regulate vacant properties, whose proliferation is a significant issue in some countries and cities. The issue of vacant properties represents a significant challenge across the EU, estimated at approximately one in six properties standing vacant across Europe.[158] This issue is especially prominent in a few EU countries including Bulgaria, Romania, Portugal, Malta, Cyprus and Hungary. However, a high share of vacant properties can be found also in some large cities with significant housing shortages. However, statistics are not harmonised across the EU, as some Member States count second residences as vacant, while others do not.[159] The identification of vacant properties is not a straightforward task but there are diverse methods that can be used. These include utility usage monitoring (significant and long-term decline of water, electricity or gas consumption), real estate databases (properties listed for long time for sale), postal service data (undelivered mail or request for main forwarding), visual inspection (e.g. overgrown grass, accumulated mail) or community reporting. While monitoring of vacant housing remains the task of local authorities, there has been cases to perform it at regional level such in case of Wallonia, Belgium.[160] Effective vacancy taxation also requires robust enforcement of homeowners' declarations, with fines for false reporting, as illustrated by international experiences such as Vancouver and Melbourne.

[155] Leodolter, L. and A. Rutkowski (2022): The Fiscal and Distributional Effects of Removing Mortgage Interest Tax Relief in EU Member States. European Economy - Economic Brief, No. 072.

[156] Kunovac, D., Zilic, I., (2022), The effect of housing loan subsidies on affordability: Evidence from Croatia, Journal of Housing Economics, Vol. 55.

[157] Colburn, G. (2021): The use of markets in housing policy: a comparative analysis of housing subsidy programs. *Housing Studies*, Vol. 36, No. 1, 46-79. Eerola, E. and T. Lyytikäinen (2021): Housing allowance and rents: Evidence from a stepwise subsidy scheme. *The Scandinavian Journal of Economics*, Vol. 123, Issue 1, 84-109.

[158] FEANTSA and Fondation Abbe Pierre.

[159] Long-term vacancy is only one condition related to housing emptiness. For understanding better and address appropriate the housing emptiness, it is useful to distinguish between i) uncompletedness, where construction halts before completion; ii) long-term vacancy, where properties remain unsold for prolonged periods beyond normal market conditions; iii) under- and unoccupancy, where finished properties are not for sale or rent, being either occasionally used or not used at all; and iv) abandonment, where buildings are uninhabited and neglected, leading to decay and market detachment. See Caramaschi, S. and F. Chiodelli (2022): Reconceptualising housing emptiness beyond vacancy and abandonment. *International Journal of Housing Policy*, Vol. 23, Issue 3, 588–611.

[160] Flas, M., J. M. Halleux, M. Cools and J. Teller (2022): Identifying housing vacancy using data on registered addresses and domestic consumption. *Housing Studies*, Vol. 39, Issue 5, 1317–1339.

Table 7: **Home-ownership support measures**

COUNTRY	GRANT SUBSIDIES TO HOUSEHOLDS TO FACILITATE HOME OWNERSHIP	SUBSIDISED MORTGAGES, GUARANTEES TO HOMEBUYERS	MORTGAGE RELIEF FOR OVER-INDEBTED HOMEOWNERS	TAX RELIEF TO FACILITATE HOME OWNERSHIP	SUPPORT TO FINANCE HOUSING REGENERATION
BELGIUM		Yes	Yes	Yes	Yes
BULGARIA		Yes			Yes
CZECHIA		Yes		Yes	Yes
DENMARK				Yes	Yes
GERMANY	Yes	Yes			Yes
ESTONIA	Yes	Yes		Yes	Yes
IRELAND	Yes	Yes	Yes	Yes	Yes
GREECE		Yes	Yes	Yes	Yes
SPAIN	Yes			Yes	Yes
FRANCE		Yes		Yes	Yes
CROATIA	Yes	Yes		Yes	
ITALY		Yes	Yes	Yes	Yes
CYPRUS	Yes				Yes
LATVIA	Yes	Yes		Yes	Yes
LITHUANIA		Yes	Yes		Yes
LUXEMBOURG	Yes	Yes	Yes	Yes	Yes
HUNGARY	Yes	Yes	Yes	Yes	Yes
MALTA	Yes	Yes		Yes	Yes
NETHERLANDS	Yes	Yes	Yes	Yes	Yes
AUSTRIA	Yes	Yes			Yes
POLAND		Yes	Yes	Yes	Yes
PORTUGAL			Yes	Yes	Yes
ROMANIA		Yes			
SLOVENIA		Yes		Yes	Yes
SLOVAKIA		Yes	Yes	Yes	Yes
FINLAND		Yes		Yes	Yes
SWEDEN			Yes	Yes	Yes

Source: 2023 2021, 2019 and 2016 OECD questionnaire on affordable housing (quash).

6.7. INSOLVENCY AND FORECLOSURE REGULATION FOR HOUSEHOLDS

Insolvency frameworks are crucial for managing insolvent debtors and can support well-functioning mortgage markets. Insolvency frameworks establish the conditions for initiating insolvency procedures, outline the rights and obligations of creditors and debtors, and describe court rules and procedures. They influence creditor and borrower incentives and determine value recovery and debt discharge speed. Insolvency often involves collateral liquidation, and debt restructuring, and repayment enhancement schemes are common. Given that housing market downturns occur and may be accompanied by increasing numbers of distressed borrowers, attention to insolvency frameworks is important to reduce the economic impact of house price falls. Effective frameworks can reduce household debt risks, free up resources in the banking system, and mitigate costs, and ultimately support the efficient operation of mortgage markets.

Loan enforcement frameworks differ in effectiveness and speed across countries. Table 8 highlights key features for the countries discussed, including recovery rates, resolution time, costs, and foreclosure system features. Denmark, the Netherlands, Luxembourg, and Slovakia have effective debt recovery procedures, with Belgium, the Netherlands, Slovakia, Finland and Sweden resolving cases relatively quickly. Conversely, Czechia and Hungary have lower recovery rates and longer resolution times. Specialised courts, linked to higher recovery rates and faster resolutions, are present in Czechia and Germany.

Out-of-court settlements and the extent of debtors' liabilities influence foreclosure proceedings. Out of court foreclosures facilitate foreclosures.[161] Table 8 includes OECD data on out-of-court foreclosures and whether foreclosures are full or non-recourse in four countries.[162] Luxembourg, the Netherlands, and Sweden allow out-of-court foreclosures, unlike Germany. In the Netherlands and Sweden, mortgages are full recourse, holding borrowers liable for unpaid mortgage balances with other assets and income. Luxembourg's loans are non-recourse, limiting lenders to housing collateral. Germany has a hybrid system. Debtors' post-foreclosure liabilities are significant if house prices fall, potentially leaving households or banks with losses. This and the ease of foreclosure proceedings can influence the decision to initiate foreclosures.

Table 8: **Loan enforcement frameworks, residential real estate**

	GROSS RECOVERY RATE (% OUTSTANDING LOAN AMOUNT)	NET RECOVERY RATE (% OUTSTANDING LOAN AMOUNT)	TIME TO RESOLVE INSOLVENCY (YEARS)	JUDICIAL COSTS (% OUTSTANDING LOAN AMOUNT)
BELGIUM	69.4%	68.2%	1.4	0.9%
BULGARIA	47.9%	44.3%	5.1	5.8%
CZECHIA	55.5%	55.4%	4.1	1.3%
DENMARK	78.9%	76.1%	0.8	0.5%
GERMANY	69.8%	68.7%	2.1	1.7%
ESTONIA	68.0%	65.1%	3.1	NA
IRELAND	11.8%	11.1%	3.7	0.2%

[161] Lenders are twice as likely to foreclose on delinquent homeowners in states that offer out-of-court foreclosures as they limit borrowers' legal efforts to prevent foreclosure. In-court and out-of-court foreclosure proceedings often coexist, although out-of-court procedures are generally the most used route when available. See: Mian, A., A. Sufi, A. and F. Trebbi (2015): Foreclosures, house prices, and the real economy. *The Journal of Finance*, Vol. 70, Issue 6, 2587-2634.

[162] In a non-recourse foreclosure, the borrower's liability is limited to the collateral (the property). In a full recourse foreclosure, the borrower is personally liable for the outstanding debt, which implies that the lender can pursue the borrower's other assets if the proceedings of the property sale do not cover the debt.

GREECE	0.4%	0.4%	1.6	2.2%
SPAIN	64.8%	64.5%	3	1.9%
FRANCE	51.5%	51.2%	3.8	1.2%
CROATIA	53.2%	51.6%	1.9	0.6%
ITALY	37.7%	33.7%	2.5	0.9%
CYPRUS	24.5%	23.6%	3.7	1.3%
LATVIA	49.9%	48.7%	3.3	1.3%
LITHUANIA	61.3%	60.2%	3.2	0.3%
LUXEMBOURG	91.0%	90.8%	3.2	0.2%
HUNGARY	41.6%	39.0%	4.1	2.4%
MALTA	24.7%	24.1%	5.5	1.1%
NETHERLANDS	82.9%	82.5%	1.2	0.3%
AUSTRIA	65.5%	63.5%	2.9	1.2%
POLAND	12.7%	5.2%	3.7	0.2%
PORTUGAL	63.8%	61.4%	3.2	1.8%
ROMANIA	33.4%	31.0%	3.6	2.0%
SLOVENIA	18.6%	18.0%	2.2	0.7%
SLOVAKIA	76.3%	75.1%	1.1	1.7%
FINLAND	49.6%	47.7%	1.4	0.2%
SWEDEN	68.1%	68.0%	1.4	0.2%

SOURCE: EBA.

7. CONCLUSIONS

Following years of price increases, housing affordability has gained political importance across the EU. Over the last decade, house prices in the EU grew around 10% faster than incomes on average, reducing affordability. While there are large differences across countries, the issue of affordability has gained political traction in all Member States and in the EU overall. The need to ensure access to affordable housing is of economic and social significance and matters to both politicians and voters across the Union. While there are key differences across Member states, the overall trend is shared by most, making this an issue with at least some common roots.

Understanding the drivers of house prices is important to determining the right policy response. House prices are determined by the interaction of demand and supply factors, and understanding what underlies recent changes is important in determining the appropriate policy response. In the absence of other changes, increases in demand for housing drives up house prices, while increases in supply brings them down. Understanding what the drivers are is important to understand which developments are concerning and how they should be addressed. This is particularly important as many of the policies introduced across EU countries appear at first hand to support affordability, but ultimately undermine it. In other cases, there are policies that have alternative – and sometimes very important – aims, which either individually or collectively undermine supply, pushing prices up. While these policies

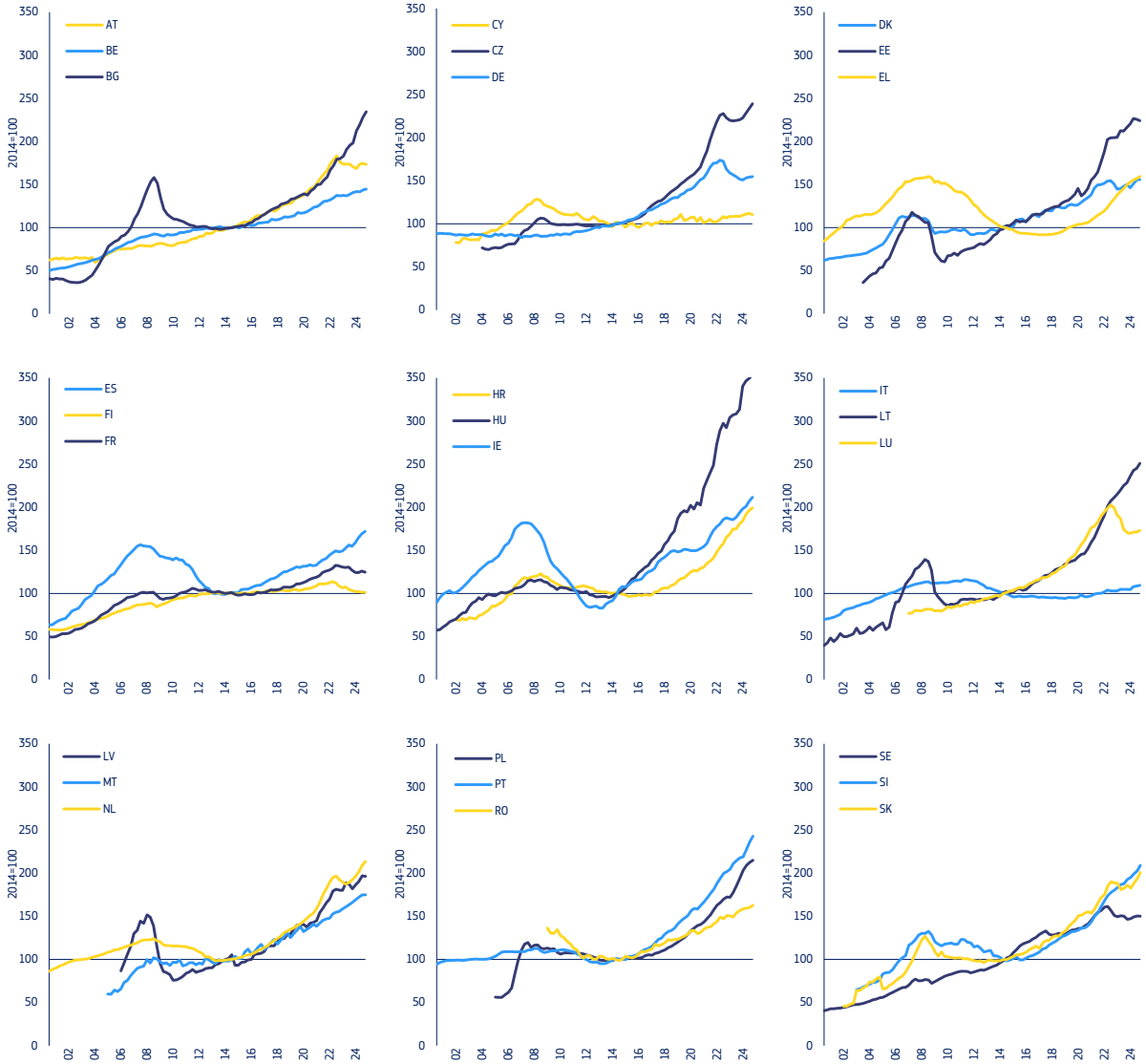
may be desirable, understanding their impact is important to taking measures to address the shortcomings they may have.

Constrained supply is at the root of high house price growth overall. Over the last decade, the supply of new homes has failed to keep up with demand and the construction of new homes has been at historically low levels. This means that as demand increases with income growth, it translated into higher prices rather than increased supply. The muted supply is affected by the regulatory environment. While some of these regulations are at Union level, many are national. In some cases, Member States add to EU regulations, or local governments add local provisions. The effect is an implementation that may undermine global aims to deliver housing and improve affordability.

Although supply policies are more effective in improving housing affordability, demand-side measures are often used, despite increasing prices over time. Both theory and evidence from the economic literature suggest that supply-side measures are generally effective at addressing rising house prices. Instead, many governments have introduced demand-side policies, such as mortgage interest deductibility, which can have detrimental long-term effects. Voters generally favour demand-side measures, including mortgage interest deductibility, tax rebates or mortgage payment subsidies, which appear to facilitate access to housing in the short term, but can increase demand and fuel price increases over time.

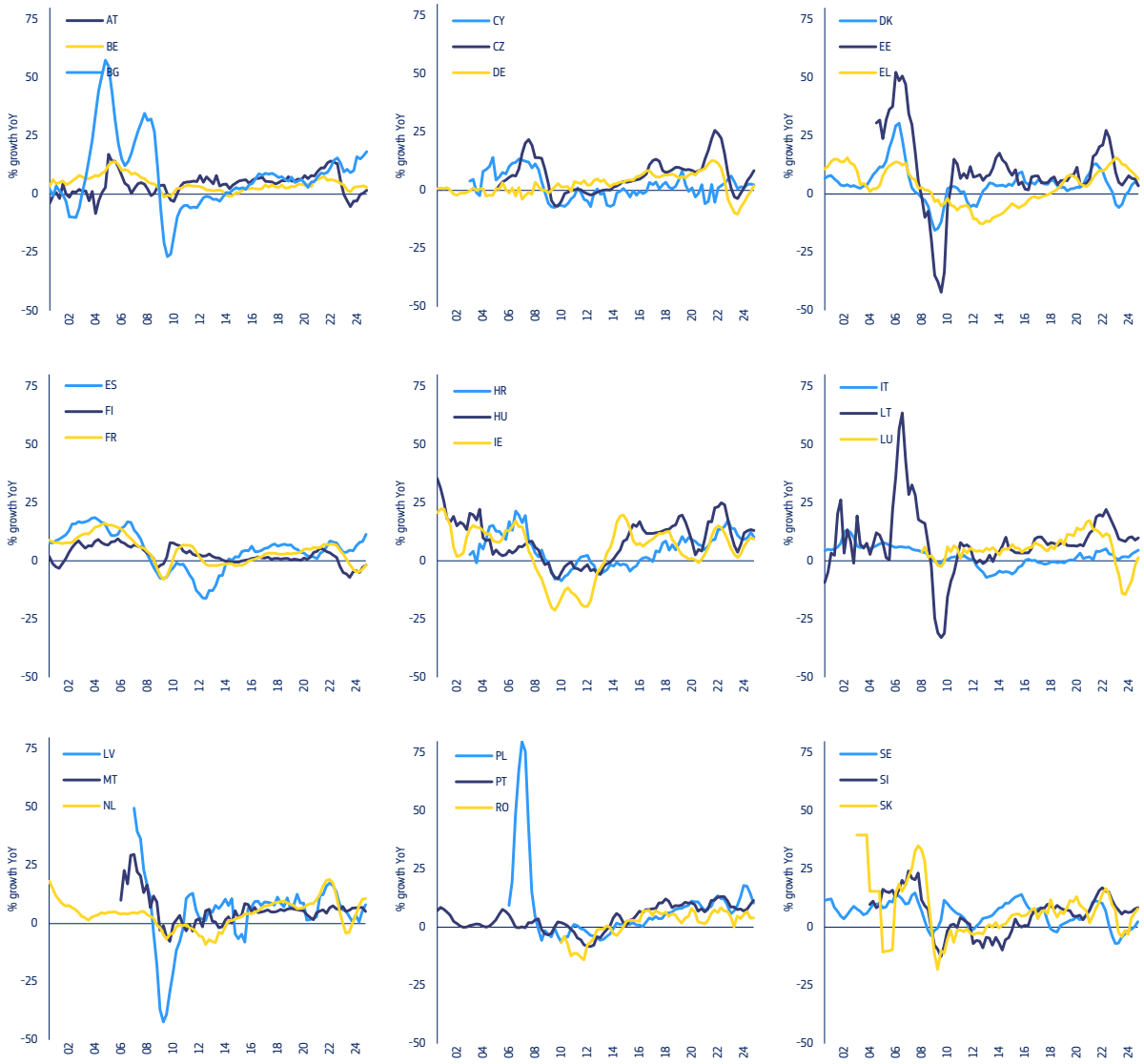
Delivering an effective policy response to reduced affordability is a complex matter. The interaction of all the factors discussed in this paper determines the operation of housing markets across EU countries. The fact that so many countries are affected by house prices that have risen, and are rising strongly, indicates that this is a common problem, that could benefit from joint reflection and action. But action must also be local – both a central but also at regional and sub-regional level. The complexity of the policy levers and the levels of responsibility means that this is no easy task. The aim of this paper is to provide insight into the situation across different countries and the policy options that may be available. The ideal response will need to be tailored to the situation in different countries, and regions.

ANNEX I: NOMINAL HOUSE PRICES – INDEX



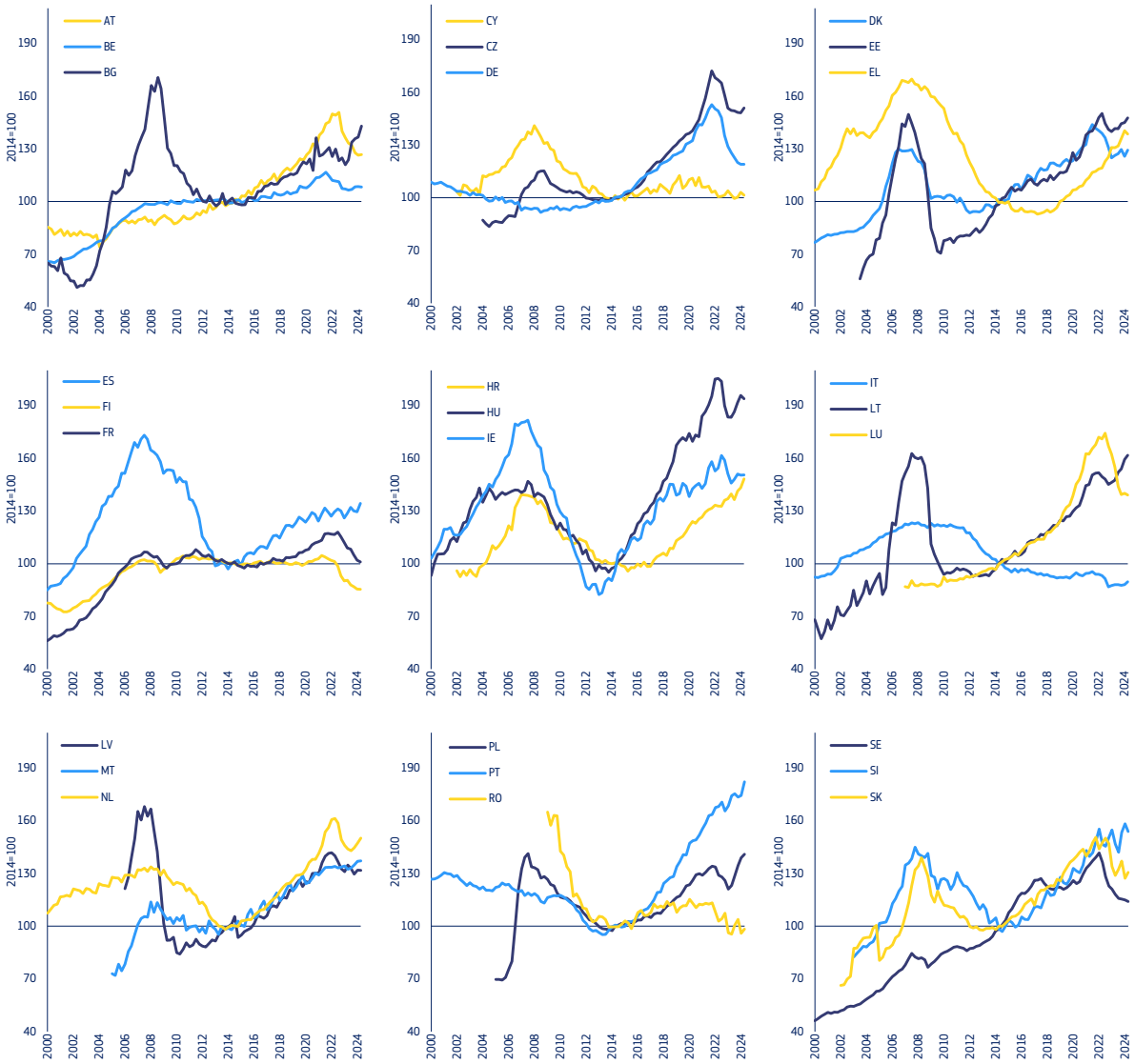
Source: Eurostat.

ANNEX II: NOMINAL HOUSE PRICES GROWTH RATES



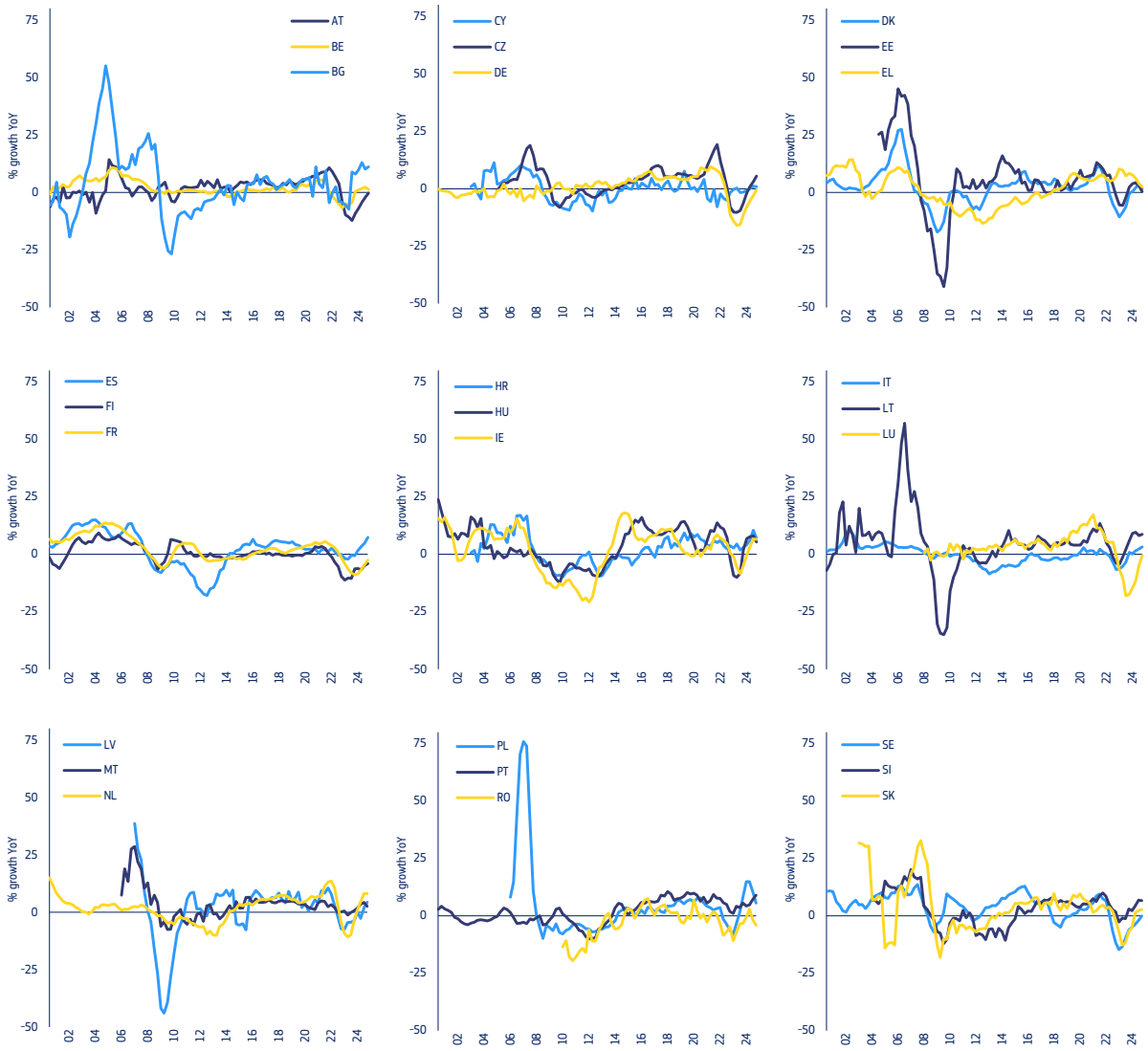
Source: Eurostat, ECFIN own calculations.

ANNEX III: REAL HOUSE PRICES – INDEX



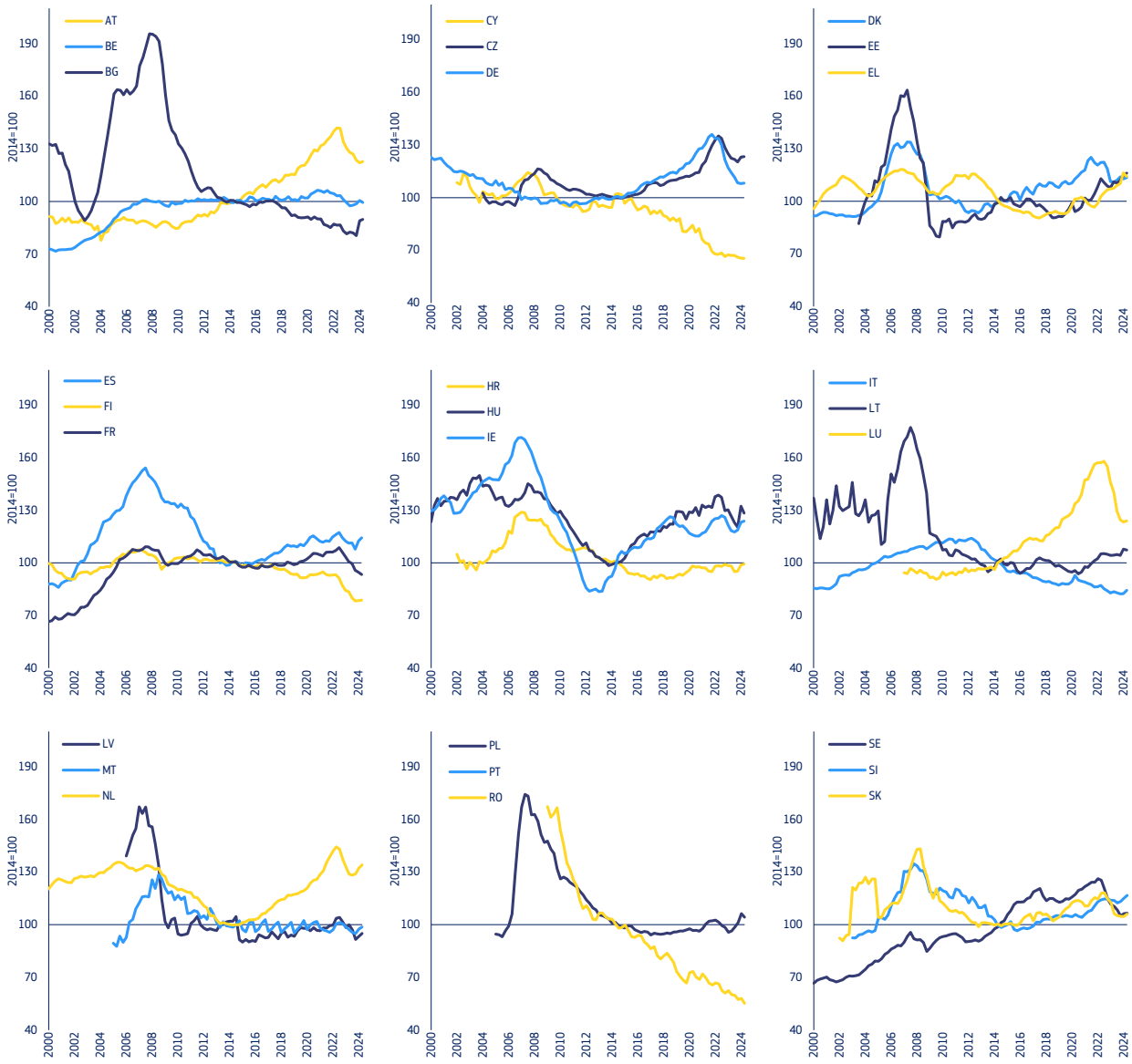
Source: ECB, Eurostat, ECFIN own calculations.

ANNEX IV: REAL HOUSE PRICES – GROWTH RATES



Source: ECB, Eurostat, ECFIN own calculations.

ANNEX V: PRICE-TO-INCOME RATIOS



Source: ECB, Eurostat, ECFIN own calculations.

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