OESTERREICHISCHE NATIONALBANK
EUROSYSTEM

PROPERTY MARKET REVIEW

Housing markets in Austria and CESEE

Security through stability.

Q1–Q2/23

This publication analyzes developments on property markets given their importance for both price and financial stability. Two issues per year focus exclusively on housing markets in Austria; two issues additionally include analyses of international housing market trends, primarily in Central, Eastern and Southeastern Europe.

Publisher and editor	*Oesterreichische Nationalbank* *Otto-Wagner-Platz 3, 1090 Vienna, Austria* *PO Box 61, 1011 Vienna, Austria* *www.oenb.at* *oenb.info@oenb.at* *Phone (+43-1) 40420-6666* *Fax (+43-1) 40420-04-6698*
Editors in chief	*Karin Wagner, Julia Wörz*
Contributions	*Antje Hildebrandt, Martin Schneider, Karin Wagner*
Coordination	*Antje Hildebrandt, Karin Wagner*
Editing	*Joanna Czurda*

Overview

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

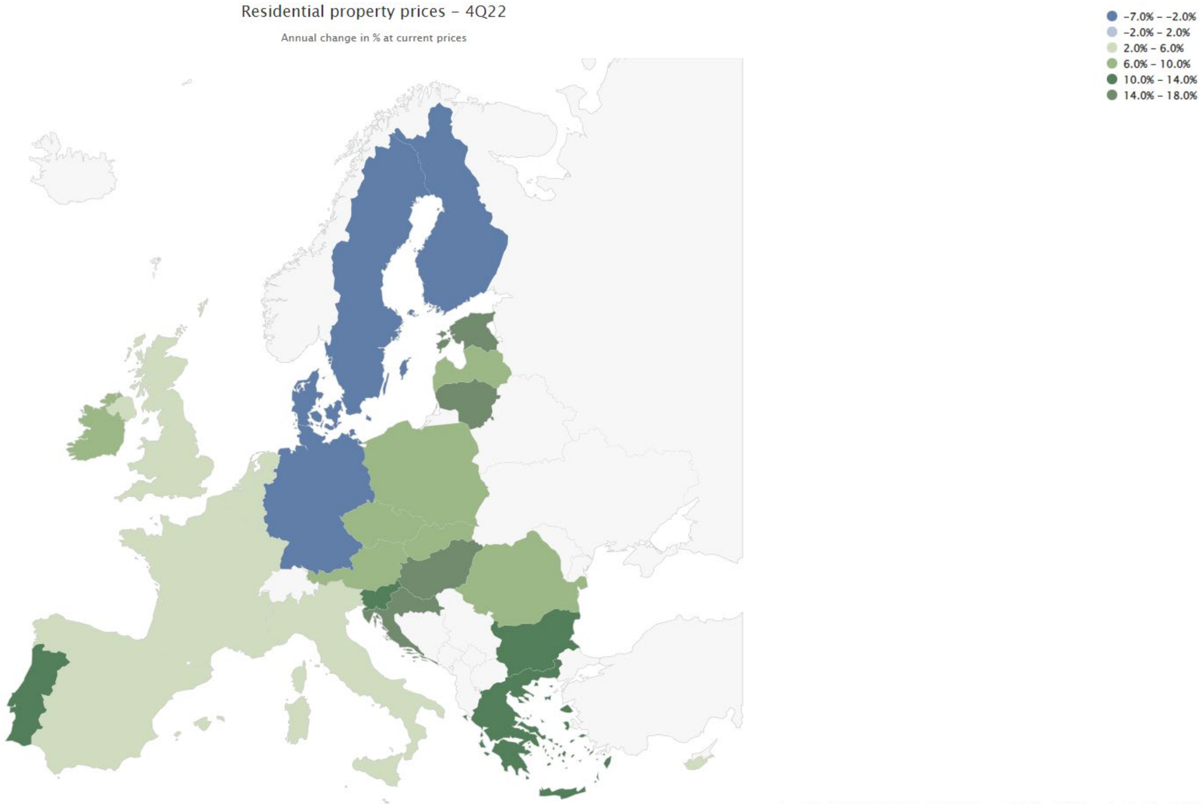
In Central, Eastern and Southeastern Europe (CESEE), house price growth moderated in Q3 22 and Q4 22 after a prolonged period of strongly accelerating prices. Still, (GDP-weighted) average house price growth in CESEE continued to be higher compared to the EU average. The dynamics of housing transactions and housing loans, among others, indicate a cooling off of housing markets across the region as well.

The reasons for receding growth are manifold: Generally, households are struggling with elevated uncertainty and increasing living costs. Moreover, financing costs have accelerated strongly, which has dampened housing loan dynamics in most CESEE countries.

Looking at the supply side, shortage of material and equipment as well as labor are burdening the construction sector. Moreover, suppressed housing demand challenges the building sector to an increasing degree as well.

From a financial stability perspective, risks have potentially increased given high household indebtedness and rising interest rates for variable interest rate loans in some CESEE countries, expectedly stretching the debt-servicing capacity of households. However, it is still an open question if and to what extent risks associated with housing market corrections will arise. At the current juncture, housing markets are overall characterized by a high degree of uncertainty about the future path of house prices.

House price growth map



Source: Eurostat, ECB. Note: UK data reflect Q3 20; the annual 2020 and 2021 figures include data up to Q3 20

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Cutoff date: June 12, 2023

The analyses conducted in this issue reflect the views of the Oesterreichische Nationalbank. The results presented here do not relate to the appraisal of individual properties and should not be interpreted as recommendations for either property purchase or sale.

Housing markets in Austria

1 House price data for 1st quarter of 2023 indicate phase of stabilization

The Austrian real estate market is likely to enter a phase of stabilization toward the end of 2023 after eight quarters of growth of over 10% (year-on-year). Current data for residential properties sold in the first quarter of 2023 show a price increase of 1.1% year-on-year in Austria, after a plus of 5.2% in the fourth quarter of 2022. In Vienna, after 4.8% in the last quarter of 2022, prices gained almost no momentum in the first quarter of 2023 (+0.8%). In the federal territory excluding Vienna, price inflation stood at 1.3% (after 5.8% in the fourth quarter of 2022). In terms of short-term dynamics (measured by increases compared to the previous quarter), the decline already recorded at the end of last year consolidated from –2% to 0% (table 1 and chart 1).

Table 1

Residential property prices in Austria

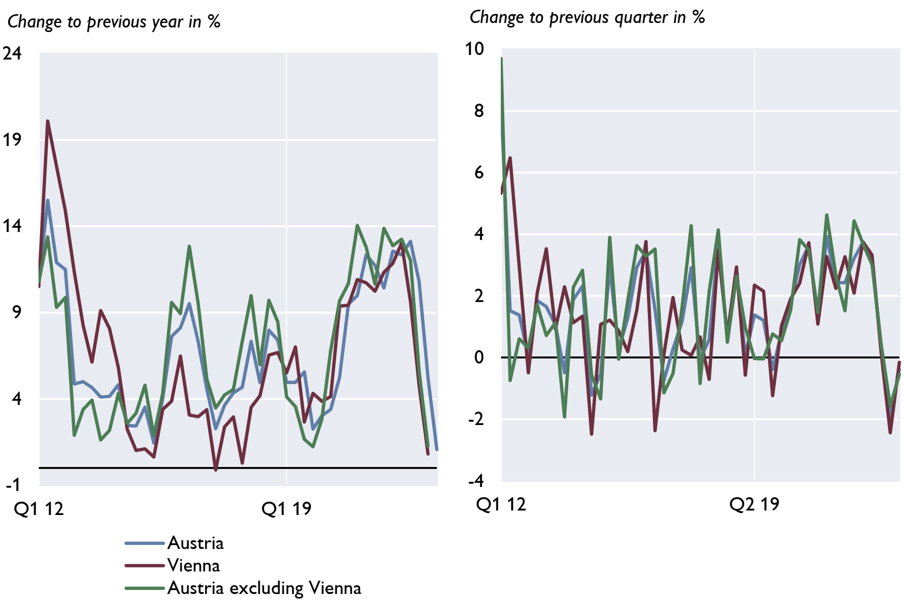
	Q4 22	Q3 22	Q2 22	Q1 22	Q4 21	Q3 21	Q2 21	Q1 21	Q4 20	Q3 20	Q2 20	2022	2021	2020
Annual change in %														
Austria	+5.2	+10.8	+13.1	+12.3	+12.6	+10.4	+11.7	+12.3	+10.0	+9.5	+5.2	+10.3	+11.8	+7.0
Austria excluding Vienna	+5.6	+12.0	+13.2	+12.9	+13.9	+10.6	+12.8	+14.0	+10.7	+9.7	+6.8	+10.8	+12.8	+7.5
Vienna	+4.8	+9.6	+13.0	+11.8	+11.3	+10.2	+10.7	+10.9	+9.4	+9.4	+4.1	+9.7	+10.8	+6.7
Quarterly change in %														
Austria	–2.0	+0.3	+3.2	+3.7	+3.2	+2.4	+2.4	+3.9	+1.3	+3.6	+3.0	×	×	×
Austria excluding Vienna	–1.6	+4.0	+3.0	+3.7	+4.4	+1.5	+2.7	+4.6	+1.5	+3.5	+3.8	×	×	×
Vienna	–2.4	+0.2	+3.3	+3.8	+2.1	+3.3	+2.2	+3.3	+1.1	+3.7	+2.4	×	×	×
Index (2000 = 100)														
Austria	272.9	278.3	277.5	269.0	259.3	251.2	245.3	239.4	230.4	227.5	219.5	274.4	248.8	222.6
Austria excluding Vienna	261.2	265.4	264.3	256.5	247.4	236.9	233.3	227.3	217.2	214.1	206.9	261.9	236.2	209.4
Vienna	312.6	320.4	319.9	309.6	298.4	292.2	283.0	276.8	268.0	265.1	255.6	315.6	287.6	259.6

Source: DataScience Service (DSS) GmbH, Vienna University of Technology, Prof. Feilmayr, OeNB.

Note: x = no data available.

Chart 1

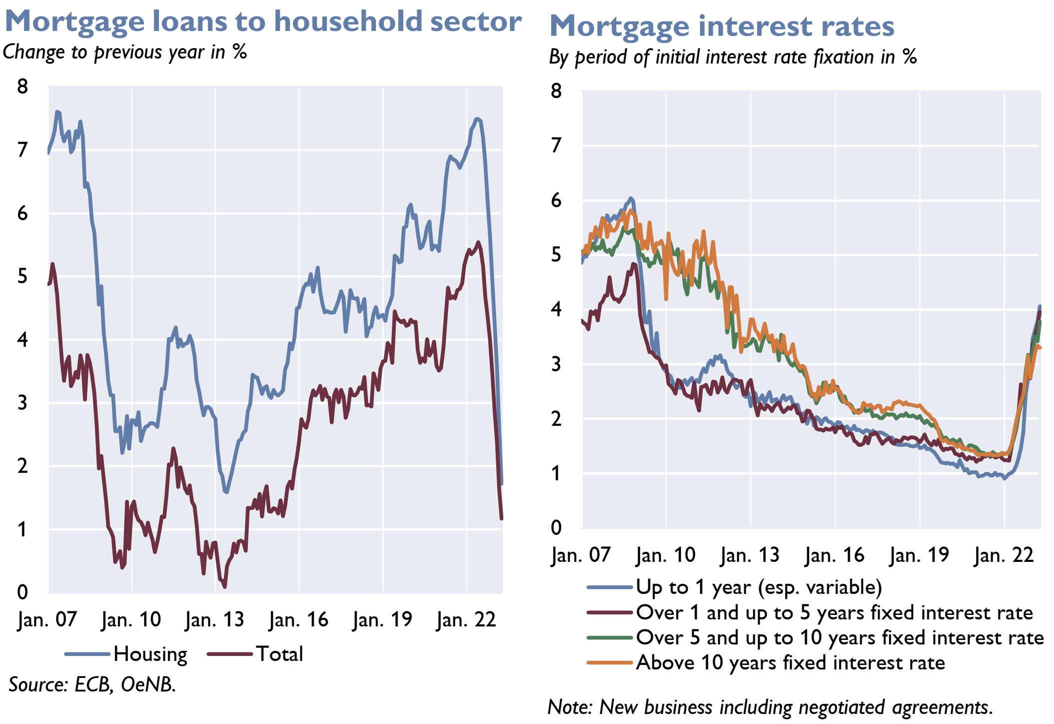
Residential property prices



Source: DSS GmbH, TU Vienna, OeNB.

This development is related to increased interest rates and decreased housing loans (both in number and volume; chart 2). The share of properties sold (as a percentage of the properties offered) reduced significantly for both houses and flats. Exact results are not available as of now, as the recording in the land register can take up to half a year.

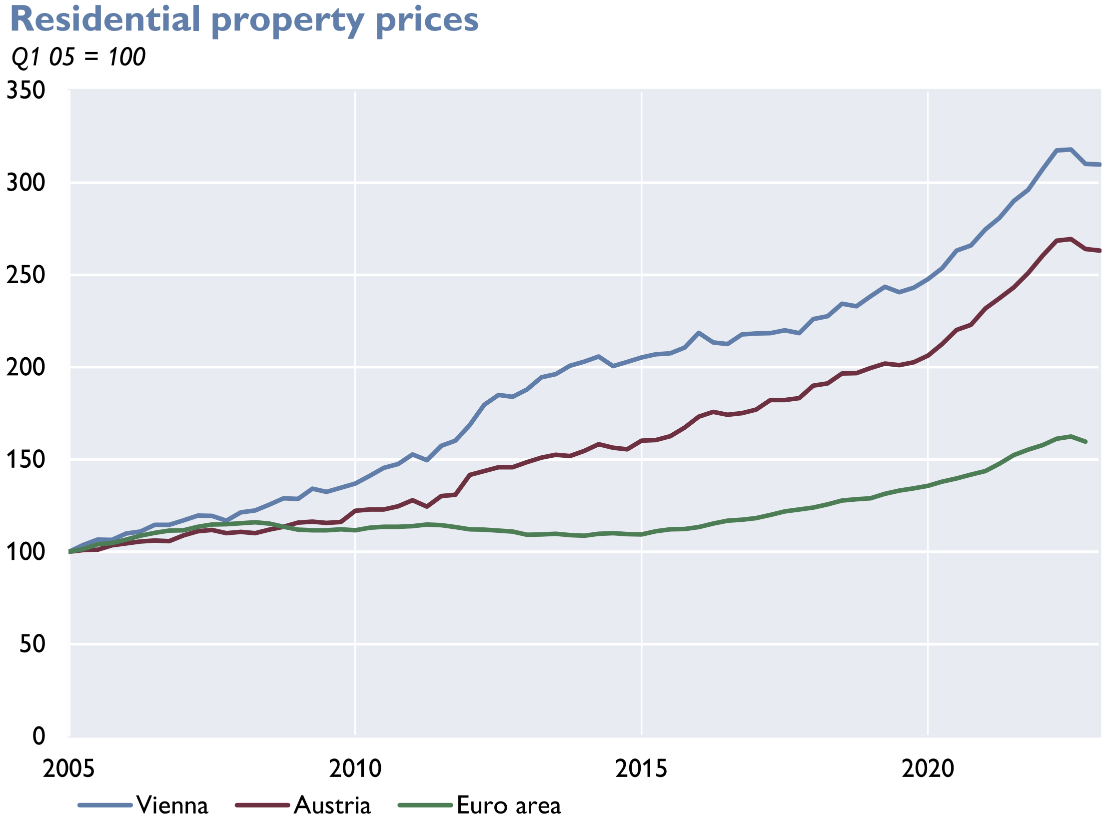
Chart 2



2 Trend reversal on real estate market in Austria

Between the first quarter of 2005 and the first quarter of 2023, house prices in Austria more than doubled (+163%). The increase was more pronounced than in the euro area (60%) and in Germany (96%), almost three times as high as that of the Harmonised Index of Consumer Prices (HICP) for Austria (56%) and also stronger than the rise of Austrian household housing loans (130%; chart 3).

Chart 3



Source: DSS GmbH, TU Vienna, Prof. Feilmayr, OeNB, ECB.

Austria has low ownership rate that continues to decline over time

Since 2010, the ownership rate in Austria declined from 50.2% to 47.9% in 2021, and the rental rate slightly increased from 41.2% to 42.9%, with significant differences between the provinces. In Vienna, for example, 81% of households live in rented accommodations (main residential accommodation). By contrast, in Burgenland the ownership rate stands at almost 70%, and living in a house is the more dominant form of housing. In the EU, the ownership rate is significantly higher with 70%, and in Germany it is almost as low as in Austria (46.7%).

Rents have risen significantly less than property prices in the long term, price dynamics have weakened recently

In the fourth quarter of 2022, according to the microcensus housing survey, housing costs (measured as net rent per m^2) rose by 6.8% on average in Austria (compared to the same quarter of the previous year). In Vienna, the increase was stronger with 8.5 %. Thus, both rates were lying above the long-term average since 2005 (AT: 3.2%; Vienna: 3.4%).

More recent information on the development of rental prices can only be deduced from the consumer price index (CPI). In April 2023, residential rents were 7.0% more expensive than a year earlier, according to the CPI for all of Austria, with new rentals increasing at a much weaker rate of 2.9%. This indicates that the price development on the rental market is slowing down somewhat, but rents are still rising.

In a long-term comparison, property prices rose significantly more than net rents according to the microcensus. On average, property prices in Austria were 163% higher in the first quarter of 2023 than in the first quarter of 2005, while property prices in Vienna rose by 210% in this period. Net rents, according to the microcensus, increased by 74% on average in Austria and by 89% in Vienna from the first quarter of 2005 to the fourth quarter of 2022.

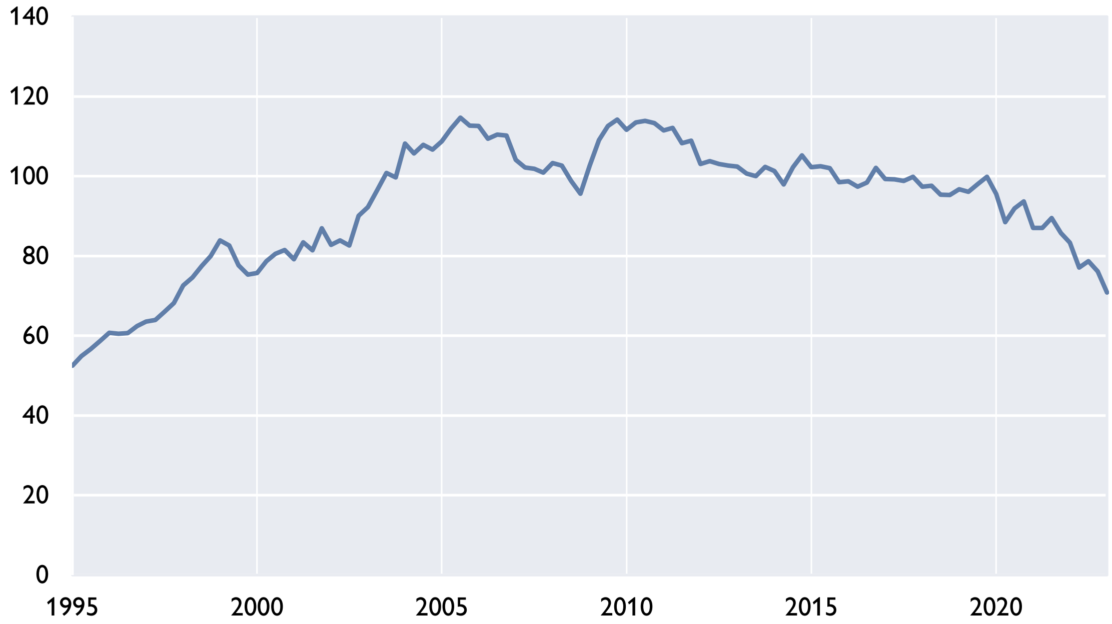
Affordability recently declined significantly and below long-term average

Over the past 17 years (2005 to 2022), real property prices have risen by 74%. In the same period, real disposable household income per capita has risen by 2%.

Chart 4

Households' affordability of Austrian residential real estate considering income and interest rates

2008 = 100



Source: OeNB.

Apart from prices and incomes, the affordability of real estate is largely determined by interest rates. An affordability indicator that also takes interest rate developments into account shows that affordability has developed stably since 2005 and at the end of 2019 was only slightly more than 10% below the peak in 2010 (chart 4). Since then, however, affordability has deteriorated significantly, due to further increases in property prices and higher interest rates, and in the first quarter of 2023 was 29% below the value for 2019.

In the first quarter of 2023 alone, affordability fell by 7% quarter-on-quarter due to interest rate rises, despite a slight fall in house prices. This puts affordability 28% below the average for 1995 to 2022.

Declining overvaluation of property prices in Austria

Overvaluation of property prices measured by the OeNB fundamental price indicator has declined in recent quarters, mainly due to the strong decrease in real property prices, and stood at 29% for Austria in the first quarter of 2023 (Q2 22: 37%). For Vienna, the indicator showed 37% in the first quarter of this year (Q2 22: 43%).

According to the overvaluation indicator of the European Central Bank (ECB), Austria is still placed at the top of the list of 13 euro area countries for which data are available; Austria stands 5 percentage points above Germany and 18 percentage points above the unweighted average of the other 12 countries.

Distinct residential construction cycle comes to an end, fewer new buildings in the coming years

In Austria, the end of a pronounced housing construction cycle can be observed; it peaked in 2021 with 71,200 completed flats. This – in combination with a weakening population growth – reduced the previously prevailing housing shortage, and the Austrian residential real estate market was largely in equilibrium in 2021 with a slight oversupply of 15,000 flats.

A forecast based on building permits suggests a decline in completions to 59,000 in 2022, to 57,000 in 2023 and to 43,000 in 2024. 2022 saw the strongest population growth recorded in the Second Republic due to immigration from Ukraine with +125,800 persons. As a result, the declining trend in the number of households (and thus housing demand) was interrupted in 2022. From 2023 onwards, Statistics Austria expects population growth to continue to weaken. Overall, the relation of supply and demand on the Austrian residential real estate market will not change in 2023 and 2024.

Demand for housing loans has come under pressure due to interest rate hikes and the tightening of lending guidelines. The volume of new housing loans has declined significantly since July 2022 and was 62% lower in March 2023 than in the same month last year. The proportion of properties sold (as a percentage of properties on offer) has decreased significantly for both houses and flats since the second half of 2022.

Only one third of households are in debt, mortgage debt concentrated among high-income households

Data from the Household Finance and Consumption Survey (HFCS) show that more than two thirds of Austrian households (71.1%) are not in debt. The median value of households in debt amounts to about EUR 54,000. Low debts are primarily made up of unsecured loans or, in a few cases, almost paid-off secured loans. High debts mainly consist of mortgage loans in various stages of repayment and are concentrated among high-income households. However, it is noteworthy that in recent years especially loans for additional real estate and not owner-occupied housing have increased. The very affluent are increasingly accumulating real estate wealth, while the share of owner-occupiers has remained roughly constant at about half of Austria’s households for the last 20 years. Therefore, the expansion in real estate wealth and accompanied debt is not driven by an expansion in home-ownership rates but by an expansion in real estate wealth at the intensive margin (Fessler et al., 2023).

High risk-bearing capacity of Austrian households compared to other countries

In an international comparison, Austria has both a low debt-to-income ratio (AT: 34%, EA: 71%, DE: 45%) and a low debt service-to-income ratio (AT: 7.6, EA: 13.4, DE: 9.7).
Valderrama et al. (2023) from the IMF note that the share of vulnerable households[1] is particularly low in Austria. With a share of around 20% for the low-income quantile and almost zero for the middle- and high-income quantiles, Austria is one of the most stable countries in Europe regarding all income classes. The high debt sustainability of the highest-income households, which hold most housing loans in Austria, indicates a low risk of sharply rising loan default rates and makes a marked increase in distress sales seem unlikely, even in times of crisis, compared to other countries.

[1] Vulnerable households are households for which basic payments including house/operating costs and loan repayments account for more than 70% of income.

Housing markets in CESEE

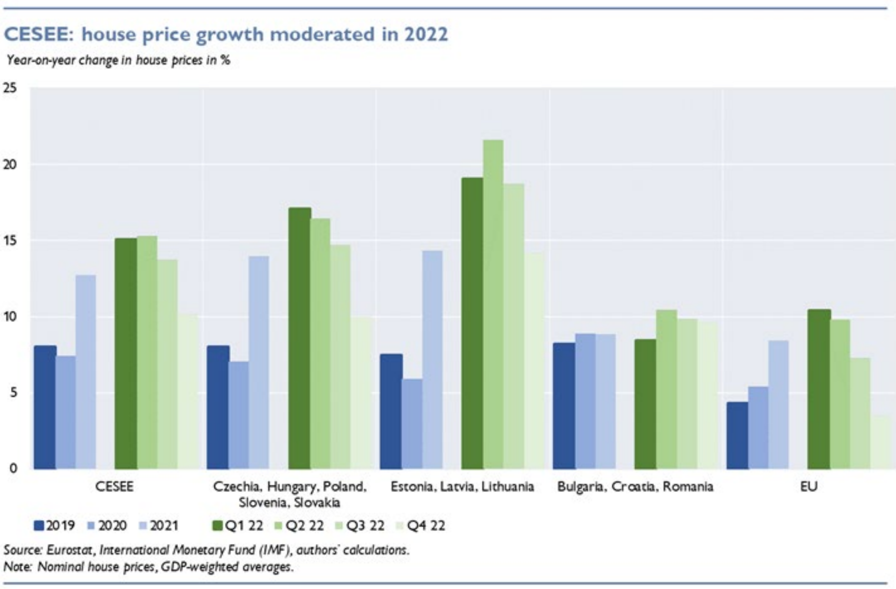
1 Clear signs of housing markets cooling off

After a prolonged period of extraordinary high growth of house prices and housing loans in Central, Eastern and Southeastern Europe (CESEE), the dynamics on the housing market have clearly slowed down. Growth of house prices and of housing loans have visibly moderated in most CESEE countries in the second half of 2022. There are many reasons for the cooling off: Generally, households are struggling with elevated uncertainty and increasing living costs. Moreover, financing costs have accelerated strongly which has dampened housing loan dynamics in most CESEE countries. On the supply side, high construction costs, shortage of material as well as of labor combined with weaker housing demand and high (re-)financing costs are burdening the construction sector. From a financial stability perspective, risks have potentially increased given high household indebtedness and rising interest rates for variable interest rate loans, which are expectedly stretching the debt-servicing capacity of households. For banks, house price corrections of overvalued house prices in many CESEE countries may imply a loss in collateral value which eventually lowers banks' capacity of supplying loans (Duca et al., 2021).

Turnaround of CESEE house prices in sight

For the full year of 2022, house price growth[2] in the CESEE region amounted to 14% after around 13% in 2021 on (GDP-weighted) average (chart 5).[3] Therefore, annual data have not changed visibly, but quarterly figures show a moderating house price trend in the second half of 2022. This development was most noticeable in the country group of Czechia, Hungary, Poland, Slovakia and Slovenia, where house price growth slowed down on average from above 16% annually in the first half of 2022 to 10% annually in the fourth quarter of 2022. Still, house price growth in CESEE continued to be higher than in the EU, where annual house price growth slumped on average from around 10% year on year in the first half of 2022 to around 7% in the third quarter of 2022 and to 3.6% in the fourth quarter of 2022.

Chart 5



[2] Based on data provided by Eurostat.

[3] House price growth rates (in nominal and real terms) are provided in the annex for each country.

At the country level, annual house price growth weakened most strongly in Czechia in the last two observation periods (third and fourth quarter of 2022) to about 16% and below 7%, respectively, after more than 20% in the first half of 2022. In all other CESEE countries, annual house price growth slowed down as well, except for Croatia, where house price dynamics picked up in the course of 2022 and growth reached 17.3% in the final quarter of 2022, which is the highest growth rate among CESEE countries. Data on housing transactions[4] indicate a significant drop of market activity. In Bulgaria and Slovenia, for example, the number of housing transactions declined by more than 20% in annual terms in the fourth quarter of 2022, in Hungary by almost 10%. According to the Magyar Nemzeti Bank (2023a), housing transactions deteriorated even stronger – by more than 40% year on year – in the first quarter of 2023.

Why are house prices moderating?

In our last reporting, a favorable economic environment, low interest rates and anticipatory effects of higher financing costs, given high inflation rates and monetary tightening by central banks, were highlighted as key drivers of house price dynamics across CESEE countries. Since then, the economic environment has changed[5] and already has had a visible impact on housing market dynamics.
Overall, the so-called cost-of-living crisis with inflation rates not seen in decades have made households uncertain about their financial leeway to buy residential property. Consumer sentiment has weakened against the background of deteriorating economic fundamentals and the threats surrounding the ongoing war in Ukraine. Financing conditions that have pushed house purchases until recently are now dampening them. In all CESEE countries, interest rates for house purchases have increased significantly.

Housing markets possibly have lost steam also because (prospective) house builders and building companies are deterred by extraordinary high construction costs and the lack of labor and construction materials, which impede new projects. Also, strained (re-)financing is likely delaying the completion of new buildings. Moreover, potential homebuyers could be in a wait-and-see position expecting that house prices might moderate in the future.

Housing finance: higher interest rates and lower housing loan growth

After a long period of strong housing loan growth and low interest rates on housing loans in most CESEE countries, financing conditions have changed noticeably. In the wake of high inflation, lending rates for housing loans have accelerated further in all CESEE countries compared to our last reporting (chart 6). Inflation-targeting central banks in non-euro area CESEE countries (Czechia, Hungary, Poland and Romania) started their tightening cycle in mid-2021. Record-low key interest rates were raised in several steps to 7% in Czechia (last hike: June 2022), 13% in Hungary (last hike: September 2022)[6], 6.75% in Poland (last hike: September 2022) and 7% in

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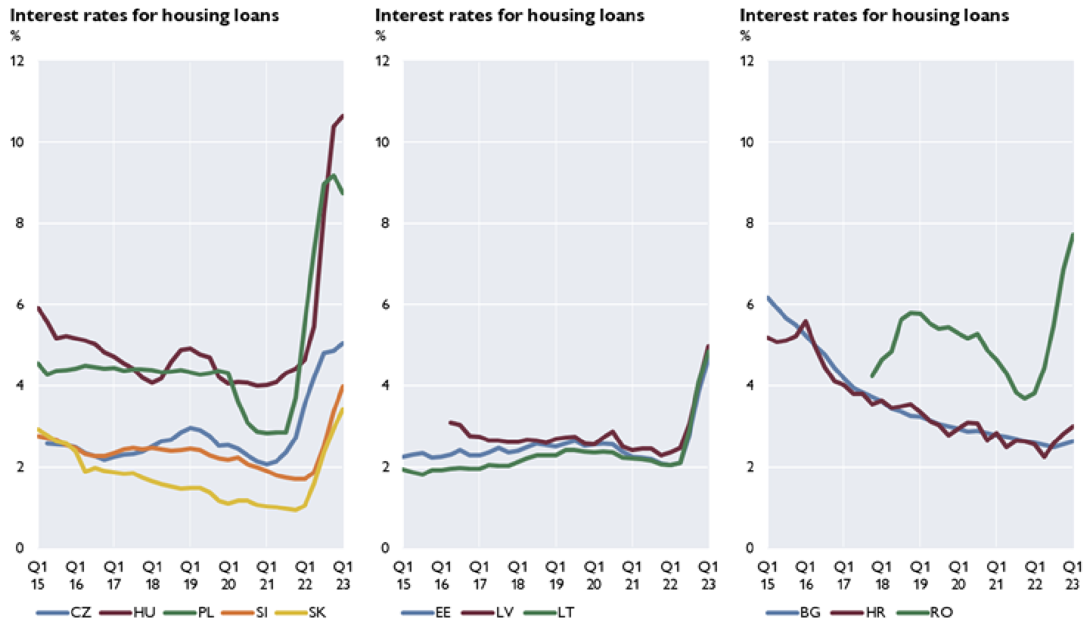
[4] Eurostat publishes quarterly data on housing transactions in CESEE countries only for Bulgaria, Hungary and Slovenia (for Poland, data only available until Q4 21).
[5] See: OeNB. 2023. Developments in selected CESEE countries. In: Focus on European Economic Integration Q2/23. OeNB. 7–33.
[6] The Hungarian central bank (Magyar Nemzeti Bank – MNB), however, introduced a one-day deposit tender at a rate substantially above its base rate (18%) in an emergency step in mid-October 2022 because the forint came under depreciation pressure. In January and February 2023, the MNB also tightened regulation regarding mandatory reserves (i.e. doubling the reserve rate to 10% and eliminating interest on the first 2.5% of the reserve

Romania (last hike: January 2023). In the euro area CESEE countries (Croatia, Estonia, Latvia, Lithuania, Slovenia and Slovakia) as well as in Bulgaria (which operates under a currency board), lending rates are linked to policy changes by the European Central Bank (ECB), which has continuously increased its key policy rates in several steps since mid-2022.

Chart 6

Interest rates accelerated in all CESEE countries



Source: National central banks.

Against this background, lending rates for housing loans accelerated, with Poland registering the strongest increase from below 3% in the third quarter of 2021 to above 7% in the second quarter of 2022. Czechia and Hungary recorded substantially higher financing costs as well.

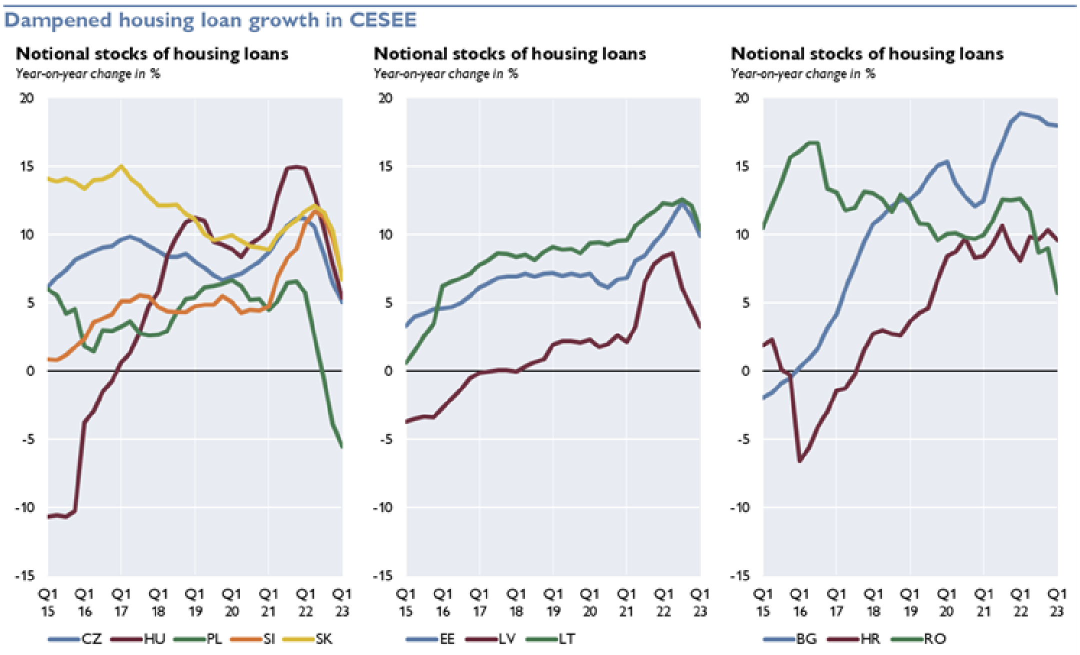
Apparently, rising interest rates for housing loans have turned loan dynamics upside down (chart 7). In most CESEE countries, housing loan growth started to moderate hand in hand with increased financing costs, and in the first quarter of 2023, growth rates were much lower than in the first quarter of 2022. Poland even showed negative annual housing loan growth rates over the last three quarters.[7] In terms of new lending, i.e., excluding renegotiated housing loans, the picture changed as well.[8] In Czechia and Poland, growth of new lending had already turned negative in the first half of 2022, in the remaining CESEE countries in the course of 2022 (except for Bulgaria).

base). As the inflation outlook improved and financial market tensions eased in April and May 2023, the MNB started to loosen several tools of its monetary policy toolbox (for more details, refer to [press releases of the MNB's Monetary Council](#).

[7] In addition to low demand for new housing loans, overpayments and early repayments as a reaction to rising interest rates also led to a decline in housing loan growth (Narodowy Bank Polski, 2022). Moreover, stricter supervisory requirements for mortgage lending had a moderating impact (IMF, 2023).

[8] Growth rates for housing loans (new business) are provided in the annex.

Chart 7



Source: National central banks.

Looking at the latest CESEE Bank Lending Survey[9] (European Investment Bank, 2023) conducted in March 2023, CESEE banks reported on average that housing market prospects would affect credit demand negatively over the next six months (referring to the period between April and September 2023). However, the negative impact of housing market prospects of the next six months will be on average somewhat less pronounced compared to the last six months (October 2022 to March 2023). Similarly, demand for housing loans is expected to slightly decrease over the next six months, however, less strongly compared to the last six months. The pattern differs for Bulgaria, where housing loan growth has been very strong until now (see above). According to the CESEE Bank Lending Survey, banks expect demand for housing loans to decrease over the next six months in Bulgaria, despite an increasing demand in the last six months. By contrast, banks expect housing loan dynamics in Croatia to increase over the next six months (same assessment as for the last six months).

Footprint of government in housing markets substantial in many CESEE countries

As discussed in our last reporting on CESEE housing markets, CESEE governments have implemented measures to varying degrees to help households purchase a house, particularly young families with children. Worsening of housing affordability (see below) has made housing ownership unreachable for an increasing share of households. Interestingly, (generous) housing purchase support measures can have adverse effects on house prices and make homeownership even more unaffordable. For Croatia, Kunovac and Zilic (2022) show that the housing loan subsidy program introduced in 2017 has contributed to house price inflation and eventually has made housing even less affordable. In this regard, a new round of housing loan subsidies introduced in spring 2023 could – under certain circumstances – push up house prices even further (Croatian

[9] The CESEE Bank Lending Survey covers the following EU CESEE countries: Bulgaria, Croatia, Czechia, Hungary, Poland, Romania and Slovakia.

National Bank, 2023). In Hungary, despite lower housing loan dynamics, housing subsidies particularly for families that are conditioned on the (planned) number of children – the so-called prenatal baby support loans – still play a key role for loan activity. At the end of 2022, the Green Home Programme, which provided subsidized loans for energy-efficient housing, was phased out contributing to moderating housing loan growth (Magyar Nemzeti Bank, 2023a; Magyar Nemzeti Bank, 2023b). In Poland, a new housing support scheme, the so-called "First-Apartment Program", is in preparation. It will target homebuyers with an age of up to 45 years and will foresee interest rate subsidies as well as support for down payments.[10]

Supply side of housing market faces manifold challenges

The supply side of the housing market faces various challenges. As discussed before, construction costs have surged in CESEE countries like everywhere else in the world, largely driven by rising energy prices, strong global demand for and lack of building materials, supply chain disruptions and labor shortage.

However, survey data suggest that shortage of material and equipment has become less of a hindering factor for the construction sector (chart 8). In Czechia, Hungary and Slovakia, material and equipment shortage seem to be much less relevant for the building sector as compared to the first half of 2022 – the same is true for the Baltics, Croatia and Romania. In Slovenia as well as in Slovakia, a large share of respondents still considers material and equipment shortage a major problem but with some decline observed lately. Data also show some modest relief regarding shortage of labor, mainly in Czechia, Hungary and the Baltics. In Slovenia and Poland, labor shortage seems to remain one of the main problems the construction sector is facing – particularly in Poland, as many Ukrainian construction workers are absent due to the ongoing war in Ukraine (Narodowy Bank Polski, 2022).

Chart 8

Material and equipment shortage less of a concern for large share of building sector

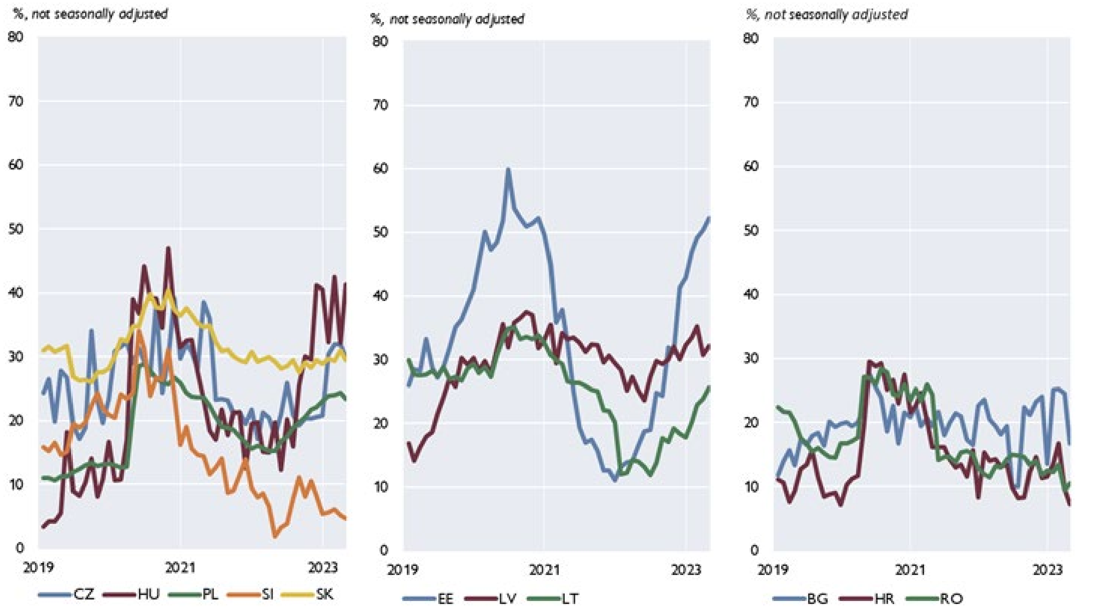
Source: European Commission.

[10] For more info, see "Government approves draft "First Apartment" program – Morawiecki".

Currently, one of the most pressing (and increasing) problems the construction sector is confronted with seems to concern the demand side: After a long period of elevated demand for housing, visible signs indicate moderating demand, particularly in Hungary, Czechia and Estonia (chart 9).

Chart 9

Insufficient demand is becoming more and more of a problem for construction sector

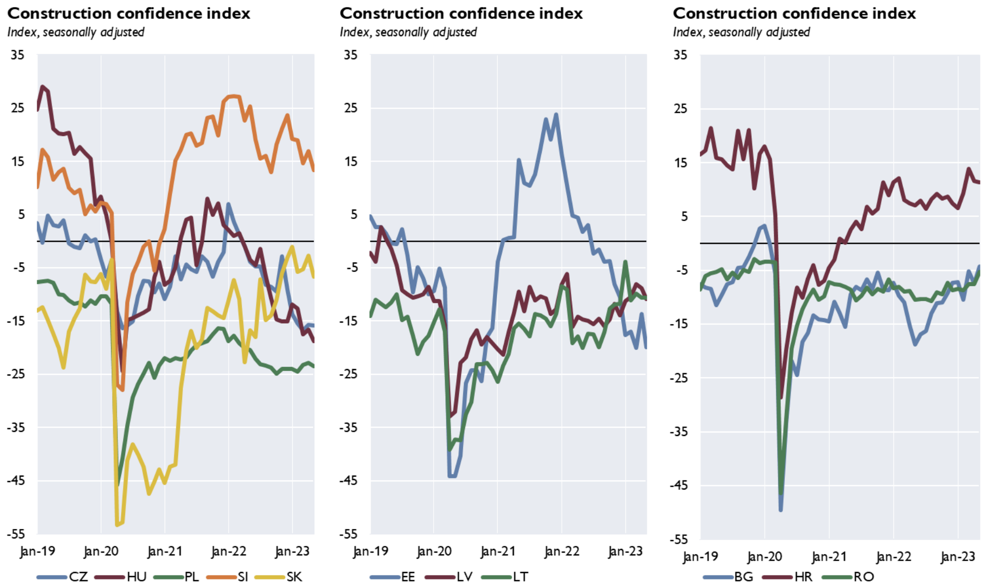


Source: European Commission.

Low demand is also reflected in construction sector sentiment (chart 10). Obviously, confidence slumped significantly after the outbreak of the COVID-19 pandemic in the first and second quarter of 2020 but recovered, at least partly, after the initial shock. Since the outbreak of the war in Ukraine, however, confidence in the construction sector has deteriorated again in most CESEE countries.

Chart 10

Subdued sentiment in construction sector



Source: Eurostat.

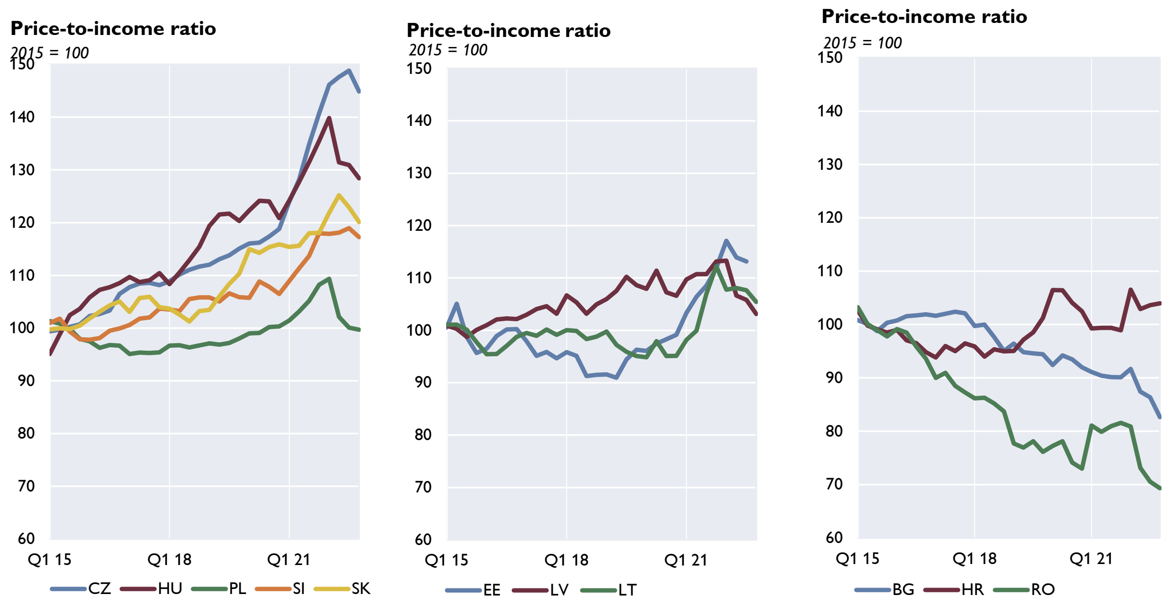
2 Households financially more stretched against the background of high inflation and rising interest rates

Affordability of housing: some easing due to moderated house price growth but other factors are at play as well

Since 2015, housing affordability has deteriorated in several CESEE countries, particularly in Czechia, Hungary, Slovakia and Slovenia given that income growth could not keep up with house price growth (chart 11). The price-to-income ratio, however, is a rather simple measure of affordability, as financing costs or subsidies are not included. Generally, it has become more difficult for households to afford buying a house because of rising financing costs and high inflation, which are eroding the purchasing power of potential buyers. For Hungary, for example, the Magyar Nemzeti Bank (2023a) calculated different affordability indicators for various subgroups. One of those indicators is, for instance, buying a house with or without subsidies, showing that housing subsidies have a sizeable impact on housing affordability. In Czechia, less than 10% of households in Czechia have sufficient income to safely buy a credit-financed average apartment under given interest rates and house prices (Czech National Bank, 2023).

Chart 11

Improved affordability in CESEE



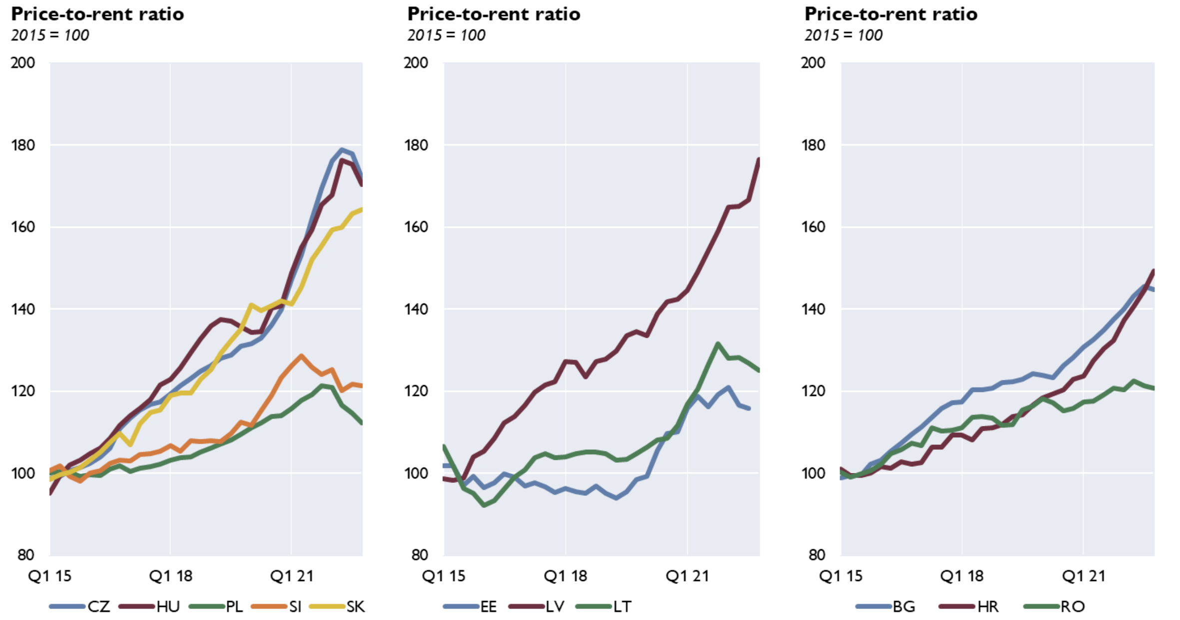
Source: Organisation for Economic Co-operation and Development (OECD).

Note: Price-to-income ratio is defined as nominal house price index divided by nominal disposable income per head. An increase in the ratio indicates lower affordability.

Price-to-rent ratios – another measure for assessing house price over- or undervaluation – also show some moderation lately, yet not in all countries (chart 12). At this juncture, several CESEE central banks evaluate house prices to be overvalued in their country. According to the Magyar Nemzeti Bank (2023a), for example, house prices are overvalued by around 9% in Hungary as a whole and by 3% in Budapest in the fourth quarter of 2022. However, this marks a notable decline after 27% and 10%, respectively, in the second quarter of 2022. According to the Czech National Bank (2023), house prices are strongly overvalued but show some signs of moderation lately.[11]

Chart 12

Moderated house price growth resulted in lower price-to-rent ratio in serveral CESEE countries



Source: OECD.

Note: Price-to-rent ratio is defined as nominal house price index divided by the housing rent price index.

Financial stability risks have potentially increased

Against the background of extraordinarily increasing house prices and strong housing loan growth for a long period of time, potential financial stability risks[12] in several CESEE countries have come to the fore.

For households, one of the key risks is their debt service capacity in light of high inflation and financing costs. Indebtedness of households due to housing purposes differs among CESEE countries (chart 13): Slovakia features the highest share of housing loans to GDP and is also the country with the strongest increase since 2015. Estonia and Czechia show a comparatively high share of housing loans to GDP as well. Placed at the other end of the spectrum are Bulgaria, Hungary and Romania with indebtedness of households caused by house purchase below 10% of GDP. Interestingly, the structure of household loans differs country-wise as well. In most CESEE countries, household loans are dominated by loans for housing purposes (in the Baltics almost exclusively), whereas in Bulgaria, Hungary but also in Croatia, consumption loans and loans for

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[11] The ESRB risk dashboard (2023) assesses house price over- and undervaluation for all CESEE countries using different measurement approaches.

[12] The ESRB (European Systemic Risk Board, 2022) concluded in February 2022 that financial stability risks related to residential property markets have increased and issued warnings to five countries, out of which four countries are in CESEE, namely Bulgaria, Croatia, Hungary and Slovakia. For those countries, this meant that policies were not appropriate to address vulnerabilities that had been building up and financial stability risks related to residential property markets were increasing. In September 2022, the ESRB issued a general warning that vulnerabilities in the residential real estate sector have increased further in many EU member states.

other purposes are more prevalent. Apart from overall indebtedness of households, additional factors are relevant for assessing the debt service capacity of households, in particular loan-to-value (LTV), debt service-to-income (DSTI) and debt-to-income (DTI) ratios. In Slovakia, for instance, households with higher ratios of DSTI, DTI and LTV have significantly higher repayment difficulties and thus a higher share of nonperforming loans (NPLs) (IMF, 2022).

Chart 13

Heterogenous share and dynamics of housing loans to GDP in CESEE

Source: National central banks, national statistical offices.

Higher interest rates are a major risk for households with variable interest rate loans, as they might translate into much higher debt servicing costs. In CESEE, households in Bulgaria, the Baltics and Poland are particularly exposed to higher loan installments given the high share of variable interest rate loans. Several CESEE central banks have implemented measures to protect creditors from repayment difficulties. In Poland, for instance, the so-called "credit holidays" for housing mortgages were implemented in 2022, allowing creditors to postpone repayments of loan installments by a total of eight months in 2022 and 2023. According to the IMF (2023), 1 million borrowers have used this instrument so far. Moreover, under certain conditions (e.g. DSTI > 50, income under certain threshold), distressed borrowers may get support from the Borrowers' Support Fund. Noteworthy, demand for housing loans with fixed interest rates has increased visibly in 2023 – because of some easing of supervisory requirements for fixed interest loans – compared to those with variable interest rates (IMF, 2023).

In Hungary, measures to protect households against rising interest rates were already introduced in 2021 and phased out at the end of 2022. Moreover, a large share of housing loans is subsidized with a fixed interest rate, shielding borrowers from interest rate increases. The Magyar Nemzeti Bank (2023b), however, sees certain risks to financial stability associated with subsidized housing loans that are conditioned on family status. For example, the prenatal baby support loan requires families to give birth to three children within a certain timeframe. In case of not meeting this requirement, the loan must be repaid without the application of the interest rate subsidy. Given the high interest rate spread between subsidized and market-based loans, non-compliance with the conditions can stretch households' debt service capacity.

How are central banks reacting?

In 2020, macroprudential measures were discontinued by some CESEE central banks due to the potential adverse impact of the COVID-19 pandemic on the economy in general and on residential property markets specifically. However, unbroken housing market dynamics and further adverse developments, such as depreciating house prices and rising indebtedness among households, led to stricter rules or reimplementation of macroprudential measures in 2022.[13] In January 2023, Slovenia implemented two systemic risk buffers focusing on risks emanating from the real estate sector. Since 2023, Slovakia has been applying stricter DTI limits for loans maturing after borrowers reach retirement, as the average age of people holding a housing loan is increasing. In June 2023, the Czech National Bank decided to leave the upper limit on the LTV ratio unchanged at 80%[14] and the DTI ratio at 8.5% and deactivated the upper limit of the DSTI.

What comes next?

In general, expectations of house price developments are marked by a high degree of uncertainty. Some CESEE central banks, however, provide estimates on the future path. The Magyar Nemzeti Bank (2023a), for instance, estimates real house prices to decline by 15% in the first quarter of 2023 and by 19% in the second. The Czech National Bank (2023) expects a partial house price correction in 2023 and a slight recovery in 2024.

In this context, the OeNB Euro Survey[15] provides some revealing results. In autumn 2022, households were asked about their expectations regarding future price developments. Concerning the overall development of prices for goods and services, a large majority of respondents expected prices to rise further (80% to 90%; chart 14). By contrast, respondents were not so sure about where house prices in their residential area are heading to (chart 15). In Bulgaria, about 25% of the respondents answered that they did not know in which direction house prices are going to develop, in Poland and Romania the share amounted to more than 15%. Only a small share answered that they expected house prices to increase strongly. In Hungary and Czechia, the share of respondents answering that house prices will decrease or stay the same amounted to more than 40%, in most of the other countries to 25%. Overall, Euro Survey results about house price developments reflect quite clearly a deep uncertainty about the future path of prices that characterizes housing markets at the current juncture.

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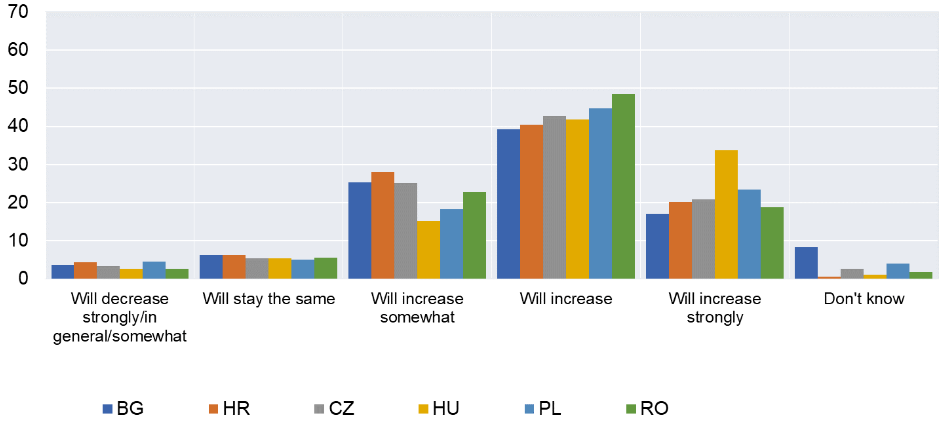
[13] For a complete overview of macroprudential measures in CESEE, see ESRB: National macroprudential policy. Details are also provided in our Property Market Review Q3/22 – Austria and CESEE and in Valderrama (2023).
[14] For creditors under 36 years of age who are taking out their first housing loan, the LTV ratio is eased to 90% and the DTI ratio to 9.5%.
[15] The OeNB Euro Survey, conducted since 2007, is a survey of private individuals in 10 CESEE countries. Samples (representative with respect to age, gender and regional distribution) consist of 1,000 randomly selected respondents per country and represent the population of the last 14 years. For more information, refer to A survey on the use of the euro in Central, Eastern and Southeastern Europe.

Chart 14

OeNB Euro Survey question: What do you think will happen to prices on average in the next 12 months?

% of respondents

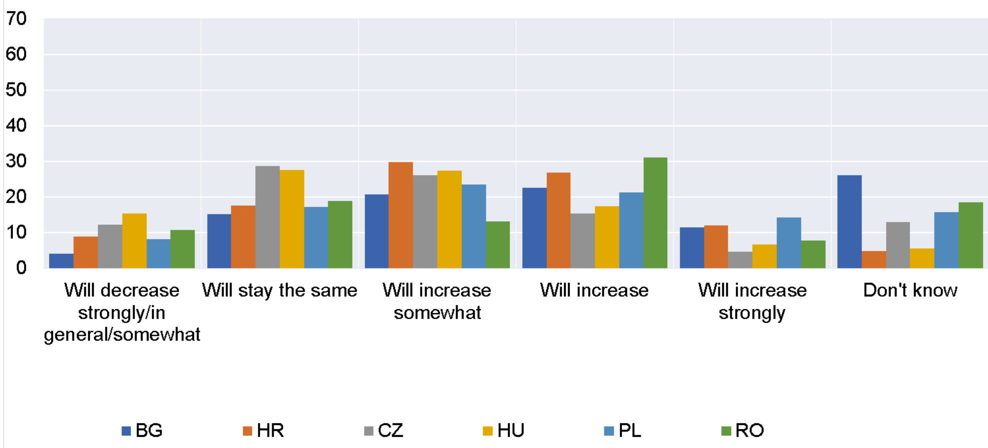


Source: OeNB Euro Survey.

Chart 15

OeNB Euro Survey question: How do you think will house prices in your area develop over the next 12 months?

% of respondents



Source: OeNB Euro Survey.

Overall, there are clear signs of moderating house price growth, and a major downturn of housing markets would entail risks to the economy and to financial stability. Generally, a slowing housing market is expected to have a dampening impact on residential investment and on consumption. Credit and interest rate risks related to housing loans have become more pronounced (as discussed above). Moreover, from a financial stability perspective, a sizeable correction of house prices may have an impact on the value of collateral and the loan-to-value ratio. In general, the risks to the banking sector depend, for instance, on the overall exposure of the banking sector to the real estate sector, on the valuation approach of collateral and on the extent of over- or undervaluation. Eventually, a lower value of collateral may constrain credit supply (see above) and could also result in higher loss given default (LGD) of banks. However, it is still an open question if and to what extent risks associated with housing market corrections will arise. At the current juncture, housing markets are characterized by a high degree of uncertainty about the future path of house prices.

References

Banka Slovenije. 2022. Financial Stability Review, October 2022.

Czech National Bank. 2023. Financial Stability Report – Spring 2023.

Czech National Bank. 2022. Financial Stability Report – Autumn 2022.

Croatian National Bank. 2023. Macroprudential Diagnostics No 19.

Duca, M., J. Lang, B. Jarmulska, M. Rusnák and E. Bandoni. 2021. Assessing the strength of the recent residential real estate expansion.

European Investment Bank. 2023. CESEE Bank Lending Survey – Spring 2023.

European Systemic Risk Board. 2022. Vulnerabilities in the residential real estate sectors of the EEA countries.

Fessler P., P. Lindner and M. Schuerz. 2023. Eurosystem Household Finance and Consumption Survey 2021: first results for Austria. OeNB Reports.

Eesti Pank. 2023. Financial Stability Review 2023/1.

European Central Bank. 2021. Financial Stability Report, November 2021.

IMF. 2022. Slovak Republic: 2022 Article IV Consultation-Press Release; and Staff Report. Country Report No. 2022/202.

IMF. 2023. Republic of Poland: 2023 Article IV Consultation-Press Release; and Staff Report. Country Report No. 2023/189.

Kunovac, D. and I. Zilic. 2022. The effect of housing loan subsidies on affordability: Evidence from Croatia. Journal of Housing Economics 55. 1051–1377.

Lietuvos Bankas. 2022. Financial Stability Review 2022.

Magyar Nemzeti Bank. 2023a. Housing Market Report. May 2023.

Magyar Nemzeti Bank. 2023b. Financial Stability Report. May 2023.

Národná banka Slovenska. 2022. Financial Stability Report - May 2022.

Narodowy Bank Polski. 2022. Financial Stability Report, December 2022.

Valderrama, L. 2023. Calibrating Macroprudential Policies in Europe. Considerations Amid Rising Housing Market Vulnerability. IMF Working Paper. WP/23/75.

Valderrama, L., P. Gorse, M. Marinkov and P. Topalova. 2023. European Housing Markets at a Turning Point. Risks, Household and Bank Vulnerabilities, and Policy Options. IMF Working Paper. WP/23/76.

Annex

Table A1

International property market data

Residential property prices

	Annual change in %, at current prices							Annual change in %, at constant prices, deflated with the personal consumption expenditure deflator						
	Q4 22	Q3 22	2022	2021	2020	2019	2018	Q4 22	Q3 22	2022	2021	2020	2019	2018
EU	3.6	7.3	7.7	8.4	5.5	4.8	5.0	.	.	.	.	.	.	.
BE	4.7	5.3	5.6	7.1	4.2	4.0	2.9	−4.7	−3.6	−2.8	4.5	3.3	2.5	0.8
BG	13.4	15.6	13.8	8.7	4.6	6.0	6.6	−4.7	−4.3	−2.4	2.5	5.2	3.9	4.1
CZ	6.9	15.6	16.9	19.7	8.4	9.2	8.6	−9.2	−2.6	0.8	16.4	5.4	6.2	5.9
DK	−6.5	−2.1	−0.5	11.7	5.1	2.3	4.4	−14.0	−9.9	−7.3	9.5	4.7	1.4	3.7
DE	−3.6	4.3	5.3	11.6	7.8	5.8	6.6	−11.4	−2.8	−1.5	8.2	7.1	4.4	5.1
EE	16.9	24.2	22.2	15.0	6.0	7.0	5.9	−0.9	3.6	4.7	10.4	7.0	4.4	2.3
IE	8.7	11.9	12.3	8.3	0.3	2.3	10.2	2.4	4.3	5.5	4.2	−0.5	0.5	8.3
GR	12.2	11.7	11.1	7.6	4.5	7.2	1.8	.	.	3.3	6.6	5.7	7.2	1.7
ES	5.5	7.6	7.4	3.7	2.2	5.2	6.7	0.0	−0.5	0.6	1.5	2.2	4.1	5.2
FR	4.9	6.5	6.4	6.3	5.2	3.3	2.9	−1.9	0.8	1.3	4.7	4.1	2.5	1.2
HR	17.3	14.8	14.8	7.3	7.7	9.0	6.1	3.3	2.0	3.6	4.8	7.1	7.8	4.6
IT	2.8	2.9	3.8	2.5	1.9	−0.1	−0.6	−7.0	−4.2	−3.4	1.0	1.8	−0.7	−1.5
CY	4.4	5.3	3.2	−3.4	−0.2	3.7	1.8	−3.1	−4.2	−4.4	−4.3	0.7	3.4	0.5
LV	9.1	13.6	14.0	10.9	3.5	9.0	9.6	−6.9	−2.5	−0.2	7.2	2.7	5.8	6.4
LT	16.0	19.3	19.0	16.1	7.3	6.8	7.3	−4.2	−1.8	0.3	11.0	6.1	4.5	4.5
LU	5.6	11.0	9.6	13.9	14.5	10.1	7.1	−0.6	5.1	3.8	12.4	13.1	8.3	5.1
HU	16.5	23.4	21.9	16.5	4.9	17.0	14.3	−6.5	4.8	4.1	10.0	1.5	11.8	10.7
MT	5.9	6.3	6.7	5.1	3.4	6.1	5.8	−0.5	−0.2	1.2	3.8	2.2	4.2	5.0
NL	5.3	12.1	13.4	15.0	7.6	7.3	9.5	−6.0	3.4	5.6	11.2	6.2	4.6	7.1
AT	7.9	11.9	11.6	12.4	7.7	5.8	4.7	−1.7	2.9	3.8	9.9	6.1	4.0	2.6
PL	9.3	12.1	11.8	9.2	10.5	8.7	6.6	−6.6	−3.5	−2.1	3.7	6.7	6.4	5.0
PT	11.3	13.1	12.6	9.4	8.8	10.0	10.3	2.1	6.4	5.9	7.9	8.1	9.0	8.6
RO	6.8	7.0	7.2	4.4	4.7	3.4	5.6	−6.7	−7.1	−6.2	−0.8	2.3	−1.9	1.7
SI	11.3	15.4	14.7	11.5	4.6	6.7	8.7	−1.5	1.4	2.7	7.8	5.2	5.3	6.6
SK	9.7	14.6	13.7	6.4	9.6	9.1	7.4	−2.5	1.6	1.3	3.0	7.2	6.2	4.9
FI	−2.3	1.3	1.2	4.6	1.8	0.4	0.9	−8.4	−4.5	−4.1	2.8	1.4	−0.6	−0.4
SE	−3.7	1.1	3.6	10.1	4.2	2.5	−0.9	−12.1	−6.8	−3.4	8.0	3.3	0.4	−3.3
UK	*.*	*.*	*.*	*.*	*.*	*1.0*	*3.3*	*.*	*.*	*.*	*.*	*.*	*−0.4*	*0.9*

Residential construction investment / Number of residential building permits

	Residential construction investment: Annual change in %, at constant prices							Number of residential building permits: Annual change in %						
	Q1 23	Q4 22	2022	2021	2020	2019	2018	Q4 22	Q3 22	2022	2021	2020	2019	2018
EU	.	−2.0	1.5	8.1	−3.0	2.1	3.6	−12.0	−2.9	2.0	16.0	−8.7	−0.7	5.7
BE	.	.	0.6	6.8	−6.8	4.7	2.6	−15.5	−10.6	−10.3	4.1	−1.1	−10.8	24.7
BG	.	−8.8	−9.2	0.6	0.7	6.6	−2.2	−17.7	65.7	20.5	35.9	−10.2	−7.7	42.3
CZ	.	−6.0	−1.4	−0.9	3.8	2.0	5.2	−11.1	−29.4	−7.1	27.6	−8.5	19.8	3.4
DK	.	4.6	7.8	9.9	9.1	6.3	4.8	−11.4	−27.1	−4.2	0.1	−5.2	−10.1	34.4
DE	.	−5.5	−2.2	0.6	4.6	1.4	3.0	−18.9	−7.7	−7.1	3.8	2.4	3.2	2.0
EE	.	28.8	6.5	−2.5	14.0	10.3	2.3	−6.6	−39.8	−22.9	−0.7	10.1	14.8	−11.3
IE	.	13.8	28.2	2.2	−7.5	−0.3	20.4	−43.5	−41.0	−20.5	1.5	10.2	32.9	39.3
GR	.	121.0	36.1	27.3	19.0	12.6	22.5	9.7	6.4	4.2	48.6	18.6	33.3	42.0
ES	0.3	1.0	3.1	−4.8	−11.4	5.2	13.0	50.4	51.6	66.8	42.7	−42.0	0.7	34.2
FR	−3.0	−3.6	−1.8	16.7	−11.9	2.5	2.2	−26.3	−1.3	1.9	20.3	−14.5	−3.5	−5.9
HR	.	9.1	7.5	6.8	−4.6	6.4	4.1	.	12.1	12.9	19.1	−8.2	30.9	−6.0
IT	.	−0.4	10.3	37.2	−7.8	−0.8	1.1	−10.7	−11.7	0.9	21.9	−11.2	−0.6	6.8
CY	.	12.2	6.0	−1.6	−3.2	26.3	37.5	−10.3	−4.8	−6.3	13.1	−3.5	55.3	25.6
LV	.	−9.0	−11.2	−7.0	−9.4	3.8	26.3	−52.0	14.7	−5.2	16.8	13.0	0.8	20.8
LT	.	25.8	18.2	−0.2	5.8	14.7	5.9	−36.9	−15.5	−18.0	28.6	1.1	−5.5	−0.2
LU	.	−14.9	−6.9	−11.2	−2.9	4.9	6.5	−10.6	−5.3	−22.9	17.8	−5.8	0.1	11.2
HU	.	10.5	12.3	−4.3	21.5	7.0	11.3	24.3	23.5	20.0	36.0	−38.1	−3.7	−3.2
MT	.	−9.5	−3.1	13.3	−7.0	14.6	25.4	33.2	−3.3	26.7	−3.3	−37.2	−3.1	31.2
NL	.	1.4	0.7	3.3	−0.6	3.4	9.3	−25.8	0.6	−15.3	13.0	15.6	−17.1	0.4
AT	.	−6.0	−3.5	5.2	−1.2	4.4	1.9	−29.0	−27.2	−22.0	−5.4	−8.7	16.6	−16.8
PL	.	−11.5	−0.6	15.3	5.7	4.9	−3.3	−29.5	−21.0	−12.7	24.0	3.1	4.6	3.3
PT	.	−0.2	3.6	12.2	−6.9	1.4	6.6	15.1	−1.1	9.0	8.8	3.5	15.5	41.1
RO	.	18.2	10.5	4.0	3.8	22.6	−22.3	−13.3	−3.7	−7.4	12.5	−2.0	4.3	11.4
SI	8.2	2.9	8.9	9.7	−0.2	8.4	1.9	18.2	−2.9	20.7	15.9	10.5	−10.3	16.6
SK	.	−0.2	4.1	7.6	9.9	2.9	9.4	−36.5	−20.7	−16.2	20.3	−6.6	−0.9	11.3
FI	.	−7.2	7.0	2.8	−3.2	−4.2	4.7	−32.4	−29.8	−18.4	9.4	6.6	−11.2	−10.1
SE	.	−4.1	4.2	8.9	1.6	−6.5	−6.4	−49.5	−24.8	−24.7	25.7	19.7	−11.2	−15.8
UK	*.*	*.*	*.*	*.*	*.*	*0.1*	*5.1*	*.*	*.*	*.*	*.*	*−36.1*	*−4.0*	*0.4*

Source: ECB, Eurostat.

Note: Residential property prices: EU in changing composition. Residential construction investment and number of residential building permits: EU-27 excluding the UK. Sources of international organizations are used in this table to facilitate comparison. This is why the data for Austria may deviate from the data provided in the section on Austria's property market. "." indicates missing values.

International property market data

Population growth

Annual change in %

	2022	2021	2020	2019	2018
EU	−0.1	−0.0	0.2	0.1	0.2
BE	0.5	0.3	0.6	0.5	0.4
BG	−1.1	−0.5	−0.7	−0.7	−0.7
CZ	−1.7	0.1	0.4	0.4	0.3
DK	0.6	0.3	0.3	0.4	0.6
DE	0.1	−0.0	0.2	0.3	0.3
EE	0.1	0.1	0.3	0.4	0.3
IE	1.1	0.8	1.2	1.5	1.0
GR	−2.0	−0.4	−0.1	−0.2	−0.3
ES	0.1	0.1	0.8	0.6	0.3
FR	0.3	0.5	0.2	0.2	0.3
HR	−4.3	−0.5	−0.4	−0.7	−1.2
IT	−0.3	−0.7	−0.3	−1.1	−0.2
CY	1.0	0.9	1.4	1.3	1.1
LV	−0.9	−0.8	−0.6	−0.7	−0.8
LT	0.4	0.1	−0.0	−0.5	−1.4
LU	1.7	1.4	2.0	2.0	1.9
HU	−0.4	−0.4	−0.0	−0.1	−0.2
MT	0.9	0.3	4.3	3.8	3.3
NL	0.7	0.4	0.7	0.6	0.6
AT	0.5	0.4	0.5	0.4	0.6
PL	−0.5	−0.3	−0.0	−0.0	0.0
PT	0.5	0.0	0.2	−0.1	−0.2
RO	−0.8	−0.7	−0.4	−0.6	−0.6
SI	−0.1	0.6	0.7	0.7	0.0
SK	−0.5	0.0	0.1	0.1	0.1
FI	0.3	0.2	0.1	0.1	0.2
SE	0.7	0.5	1.0	1.1	1.3
UK	*.*	*.*	*0.6*	*0.6*	*0.7*

Homeownership ratio

Share of ownership in %

	2022	2021	2020	2019	2018
EU	.	69.9	70.0	69.8	69.9
BE	72.5	71.3	71.1	71.3	72.3
BG	85.0	84.9	84.3	84.1	83.6
CZ	77.1	78.3	78.9	78.6	78.7
DK	.	59.2	59.3	60.8	60.5
DE	46.7	49.1	50.5	51.1	51.5
EE	82.0	81.6	81.4	81.7	82.4
IE	.	70.0	69.3	68.7	70.3
GR	72.8	73.3	73.9	75.4	73.5
ES	76.0	75.8	75.1	76.2	76.3
FR	.	64.7	63.6	64.1	65.1
HR	91.1	90.5	91.3	89.7	90.1
IT	.	73.7	75.1	72.4	72.4
CY	.	69.8	68.6	67.9	70.1
LV	83.1	83.2	81.2	80.2	81.6
LT	.	89.0	88.6	90.3	89.9
LU	.	71.1	68.4	70.9	71.2
HU	90.1	91.7	91.3	91.7	86.0
MT	.	81.9	81.9	79.8	81.6
NL	70.6	70.1	69.1	68.9	68.9
AT	51.4	54.2	55.3	55.2	55.4
PL	87.2	86.8	85.6	84.2	84.0
PT	.	78.3	77.3	73.9	74.5
RO	.	95.3	96.1	95.8	96.4
SI	.	76.1	74.6	74.8	75.1
SK	.	92.9	92.3	90.9	91.3
FI	69.5	70.3	70.7	71.1	71.6
SE	.	64.9	64.5	63.6	64.1
UK	*.*	*.*	*.*	*.*	*65.2*

Property price-to-income ratio

Index

	Q4 22	Q3 22	2022	2021	2020	2019	2018
EU	.	.	.	.	.	.	.
BE	101.3	103.5	104.2	107.4	103.5	100.9	100.4
BG	82.6	86.3	86.2	89.8	94.1	96.2	98.9
CZ	144.9	148.8	146.9	134.4	120.5	113.5	110.4
DK	104.2	110.5	112.3	121.4	109.7	104.4	104.8
DE	123.6	132.7	132.8	133.8	122.4	115.2	110.9
EE	.	113.2	.	104.1	98.1	93.6	92.9
IE	117.1	116.7	116.2	110.0	107.5	113.8	116.4
GR	116.4	115.4	113.0	105.2	107.0	98.0	97.2
ES	123.0	123.7	124.5	122.0	120.2	110.7	109.6
FR	109.2	111.1	111.1	109.6	106.2	101.4	100.9
HR	100.3	100.2	101.5	99.2	104.9	98.0	95.0
IT	90.6	91.2	92.1	94.5	95.8	92.1	93.1
CY	.	.	.	.	.	.	.
LV	103.1	105.8	105.4	106.2	108.0	107.7	104.9
LT	105.4	107.6	107.3	106.8	95.9	97.0	99.3
LU	150.8	154.5	152.7	146.6	129.8	118.9	111.9
HU	128.4	130.9	127.4	124.1	121.6	119.2	111.6
MT	.	.	.	.	.	.	.
NL	.	146.4	.	133.9	122.1	117.0	113.9
AT	141.4	141.4	140.1	134.3	124.1	113.1	110.0
PL	99.7	100.1	102.0	107.1	100.1	97.6	96.0
PT	.	150.2	.	141.9	134.9	122.1	115.9
RO	69.3	70.5	71.2	74.4	75.4	77.3	85.4
SI	117.3	118.9	118.0	111.0	107.2	105.7	104.5
SK	120.1	122.9	123.1	119.1	114.8	107.3	102.8
FI	93.1	96.1	95.7	97.2	95.6	94.7	97.0
SE	104.0	108.5	110.3	113.1	108.5	103.9	104.7
UK	*121.4*	*121.3*	*121.3*	*115.8*	*110.0*	*106.0*	*108.3*

Property price-to-rent ratio

Index

	Q4 22	Q3 22	2022	2021	2020	2019	2018
EU	.	.	.	.	.	.	.
BE	117.8	118.7	118.8	116.4	110.8	109.2	106.1
BG	144.8	145.5	143.4	134.0	125.4	122.9	119.7
CZ	172.1	177.9	176.0	158.0	135.2	128.5	122.1
DK	118.1	124.0	125.2	128.4	116.4	111.8	109.9
DE	140.5	148.6	147.7	142.6	129.6	121.9	116.9
EE	.	115.9	.	117.6	106.2	95.8	96.0
IE	120.8	124.6	124.4	121.1	114.9	115.5	118.1
GR	145.2	143.9	140.9	128.5	119.6	114.5	106.7
ES	134.3	134.4	133.5	125.9	122.2	120.9	116.7
FR	130.1	130.4	129.2	122.3	115.6	110.0	106.9
HR	149.3	144.6	143.0	128.5	120.3	114.1	109.9
IT	104.1	104.0	104.2	101.5	99.0	97.4	97.8
CY	.	.	.	.	.	.	.
LV	176.5	166.8	168.2	151.8	139.2	131.5	126.3
LT	125.2	126.8	127.1	123.9	108.7	104.0	104.8
LU	172.8	176.0	172.8	160.4	142.8	126.0	116.0
HU	170.3	175.4	173.4	157.1	137.5	136.6	127.7
MT	.	.	.	.	.	.	.
NL	.	162.6	.	144.6	128.0	122.2	116.7
AT	139.2	141.1	139.4	126.0	114.2	110.4	107.5
PL	112.4	114.8	116.1	118.6	112.9	107.7	104.0
PT	.	166.8	.	149.7	139.3	131.4	123.3
RO	120.8	121.4	121.3	118.7	116.6	113.9	113.0
SI	121.2	121.9	121.8	126.2	117.3	109.5	107.0
SK	161.4	164.4	162.2	148.6	140.9	130.5	120.3
FI	97.0	100.3	99.8	99.6	96.0	95.6	97.2
SE	122.7	126.6	127.9	125.5	115.4	112.4	111.4
UK	*131.7*	*131.2*	*130.1*	*121.8*	*113.8*	*112.2*	*112.0*

Source: Eurostat, OECD.

Note: EU-27 excluding the UK. Sources of international organizations are used in this table to facilitate comparison. This is why the data for Austria may deviate from the data provided in the section on Austria's property market. "." indicates missing values.

International property market data

Housing loans[1,2]

Annual change in %

	Q1 23	Q4 22	2022	2021	2020	2019	2018
EU	.	.	.	.	.	.	.
BE	6.6	8.3	8.3	7.9	10.7	7.6	9.0
BG	18.0	18.1	18.1	18.3	12.1	15.1	12.5
CZ	5.1	6.5	6.5	11.2	8.1	6.6	8.6
DK	−1.3	−0.2	−0.2	3.2	2.0	2.4	1.7
DE	4.3	5.4	5.4	7.1	6.5	5.4	4.6
EE	9.9	11.3	11.3	9.5	6.7	7.0	7.1
IE	−2.3	−3.0	−3.0	−4.1	−2.6	2.0	4.0
GR	−3.8	−3.7	−3.7	−16.3	−2.8	−5.5	−2.9
ES	−1.5	−0.1	−0.1	0.9	−1.1	−1.3	−1.4
FR	4.1	4.6	4.6	6.6	7.1	6.1	6.3
HR	9.6	10.4	10.4	9.0	8.3	6.7	2.6
IT	3.1	4.6	4.6	4.7	2.2	1.1	1.7
CY	1.5	2.6	2.6	2.7	4.4	0.1	−0.7
LV	3.3	4.7	4.7	7.9	2.6	2.1	0.9
LT	10.4	12.1	12.1	11.7	9.5	8.7	8.7
LU	3.3	5.5	5.5	9.2	9.8	8.4	8.4
HU	5.4	7.8	7.8	15.0	9.8	9.3	10.9
MT	8.6	9.6	9.6	10.9	7.0	10.1	8.7
NL	4.0	4.5	4.5	4.0	1.1	2.3	−1.7
AT	2.6	5.0	5.0	6.9	5.5	6.1	4.4
PL	−5.5	−3.9	−3.9	6.6	5.3	6.4	5.3
PT	1.9	3.6	3.6	4.4	2.3	1.0	0.4
RO	5.7	9.0	9.0	12.5	9.7	9.6	12.9
SI	6.9	9.8	9.8	9.0	4.4	5.5	4.3
SK	6.7	10.3	10.3	11.1	9.1	9.8	11.5
FI	0.1	1.4	1.4	4.1	3.3	2.7	1.6
SE	2.8	4.0	4.0	6.9	5.9	5.2	5.6
UK	*.*	*.*	*.*	*4.7*	*3.0*	*3.5*	*3.4*

Housing loans[1,3]

Share of GDP in %

	Q1 23	Q4 22	2022	2021	2020	2019	2018
EU	.	.	.	.	.	.	.
BE	40.2	40.8	40.8	41.1	41.6	36.1	34.8
BG	9.9	10.0	10.0	10.1	10.0	8.9	8.6
CZ	25.0	25.1	25.1	27.0	25.4	23.2	23.0
DK	83.0	84.3	84.3	94.5	99.1	97.4	97.7
DE	39.8	40.3	40.3	41.1	40.5	37.3	36.4
EE	28.7	29.1	29.1	30.1	31.5	29.2	29.3
IE	16.3	16.6	16.6	16.5	19.8	21.4	23.3
GR	13.7	14.1	14.1	16.8	27.7	28.5	31.4
ES	37.0	38.3	38.3	42.3	45.1	41.0	43.1
FR	49.2	49.8	49.8	50.2	50.8	45.2	43.9
HR	14.4	14.8	14.8	15.4	16.4	13.7	13.6
IT	21.9	22.4	22.4	22.9	23.6	21.3	21.4
CY	30.0	31.1	31.1	34.9	39.7	37.1	40.0
LV	11.8	12.1	12.1	13.4	13.8	13.6	14.1
LT	17.0	17.1	17.1	18.2	18.4	17.2	17.0
LU	52.4	53.3	53.3	54.8	56.1	53.0	50.7
HU	7.5	7.3	7.2	8.1	8.0	7.5	7.7
MT	41.7	41.9	41.9	43.0	44.2	38.5	38.1
NL	57.4	58.5	58.5	60.2	62.2	60.2	61.8
AT	29.2	30.3	30.3	32.0	31.8	29.5	28.6
PL	15.6	16.4	16.4	19.6	20.2	19.8	19.7
PT	40.7	41.9	41.9	45.1	47.4	43.3	45.3
RO	7.2	7.5	7.5	8.4	8.3	7.6	7.7
SI	13.5	13.9	13.9	14.3	14.6	13.6	13.6
SK	33.8	37.9	37.9	37.5	36.1	32.8	31.4
FI	40.0	40.9	40.9	42.9	43.5	41.8	41.8
SE	63.8	64.9	64.9	70.2	75.5	69.1	67.9
UK	*.*	*.*	*.*	*.*	*.*	*60.1*	*57.6*

Housing loans[1,4] – new business (excluding renegotiated loans)

Annual change in %

	Q1 23	Q4 22	2022	2021	2020	2019	2018
EU	.	.	.	.	.	.	.
BE	−39.2	−10.2	−3.4	22.3	−15.6	18.9	3.7
BG	15.1	14.7	22.2	48.2	.	.	.
CZ	−66.2	−79.6	−57.3	63.9	31.7	−18.3	7.0
DK	.	.	.	.	.	.	.
DE	−54.2	−43.3	−13.5	6.6	3.6	13.1	7.5
EE	−31.9	−34.7	−4.1	59.5	−6.2	7.7	3.3
IE	39.6	46.8	26.2	15.6	−15.3	10.1	19.9
GR	36.9	.	.	.	.	.	7.0
ES	−19.9	−3.3	9.8	39.4	−2.1	2.3	13.2
FR	−31.7	−18.6	−3.7	16.3	0.7	14.1	3.6
HR	.	−95.9	−75.1	−28.0	0.6	27.6	−28.5
IT	−26.3	−16.9	−6.8	22.0	5.2	−3.8	0.3
CY	−44.0	−25.0	4.9	42.4	−9.6	0.6	19.9
LV	−20.3	−23.1	4.7	54.3	−3.2	−5.5	7.4
LT	−12.6	−6.5	8.9	43.0	4.4	2.5	9.7
LU	−40.6	−22.9	−11.5	7.2	16.9	5.6	7.9
HU	−66.7	−54.0	−9.0	41.6	1.4	5.2	33.9
MT	.	.	.	.	.	.	.
NL	−41.6	−28.4	−6.6	23.8	18.7	4.2	−0.7
AT	−63.3	−46.3	−12.8	8.8	21.2	13.6	6.0
PL	−58.7	−72.6	−43.6	49.0	7.6	7.0	10.5
PT	−23.1	−14.7	2.5	34.0	8.1	10.3	19.6
RO	−51.9	−34.5	−9.7	44.7	9.0	4.5	−12.0
SI	−58.7	−26.9	10.2	38.4	33.4	4.8	−4.2
SK	−66.6	−55.5	−14.6	32.3	4.8	0.6	9.6
FI	−41.9	−41.1	−20.5	15.1	5.2	0.7	3.4
SE	.	.	.	.	.	.	.
UK	*.*	*.*	*.*	*.*	*.*	*.*	*.*

Share of variable rate housing loans[1] in new business[5]

%

	Q1 23	Q4 22	2022	2021	2020	2019	2018
EU	.	.	.	.	.	.	.
BE	8.8	9.4	7.6	5.1	5.0	5.8	11.2
BG	93.9	88.7	94.9	98.2	97.9	99.1	98.7
CZ	2.7	3.2	2.0	1.6	2.7	3.4	4.0
DK	46.6	42.3	39.3	23.8	23.5	19.4	33.2
DE	17.0	17.8	11.6	9.7	10.5	11.0	11.8
EE	93.8	92.5	92.6	90.7	86.8	90.1	88.7
IE	7.6	6.0	10.8	19.8	22.8	26.9	39.0
GR	34.0	41.2	44.6	54.2	66.4	81.8	95.3
ES	26.1	27.7	23.7	25.1	34.0	35.5	36.3
FR	3.8	3.9	3.2	2.6	2.3	2.4	2.5
HR	.	38.3	24.5	12.1	13.0	5.6	8.4
IT	46.1	66.7	39.8	16.8	18.1	27.8	33.2
CY	83.2	91.8	95.1	98.0	92.5	93.2	95.8
LV	88.8	88.6	91.4	96.4	94.1	95.9	95.6
LT	96.9	96.6	95.9	97.6	97.3	98.4	97.4
LU	43.1	51.9	45.6	34.9	33.9	38.6	46.9
HU	1.0	1.2	0.7	0.7	1.2	3.0	15.4
MT	64.7	56.7	65.3	65.9	83.4	40.1	62.7
NL	21.9	21.0	13.3	11.8	14.7	18.5	16.2
AT	57.5	47.2	38.4	38.1	37.6	43.4	43.5
PL	55.4	52.3	59.8	95.3	92.5	100.0	100.0
PT	70.9	74.6	68.7	68.9	67.8	70.7	65.1
RO	53.6	55.0	60.7	73.2	70.7	77.4	74.1
SI	6.6	6.4	7.8	21.5	51.7	52.9	47.9
SK	4.1	4.6	2.8	2.1	2.3	1.7	1.7
FI	98.0	98.0	97.3	97.1	97.9	98.0	98.0
SE	86.0	82.7	69.6	55.3	60.5	66.7	77.0
UK	*.*	*.*	*.*	*5.6*	*8.5*	*7.1*	*7.1*

Source: ECB.

[1] Housing loans are defined as housing loans to the household sector.

[2] Annual change of the index of notional stocks; annual and quarterly figures are based on the latest end-of-month data for the respective period. The data refer to domestic lending in all currencies (foreign currency loans have been converted into euro).

[3] Domestic lending in all currencies, as converted into euro; amount of loans outstanding at end-period in % of GDP of the previous year or of the previous four quarters.

[4] Denominated in the respective national currency (growth rates are based on the averages of the monthly data available for the relevant years or quarters).

[5] New business is defined as actual new business and renegotiated loans; variable rate loans are defined as loans with an initial rate fixation period of up to one year; includes loans granted in the respective national currency; end-of-period figures are calculated from the monthly data available for the relevant periods.

Note: Sources of international organizations are used in this table to facilitate comparison. This is why the data for Austria may deviate from the data provided in the section on Austria's property market. "." indicates missing values.

International property market data

Housing loans[1] in % of disposable income[2]

%

	2021	2020	2019	2018	2017
EU	.	.	.	.	.
BE	76.0	73.0	67.2	65.0	61.5
BG	.	.	.	.	14.2
CZ	51.2	48.4	46.0	45.4	46.2
DK	219.2	216.2	211.9	214.4	217.8
DE	72.8	69.4	66.1	63.8	63.4
EE	58.4	57.9	55.1	55.0	56.7
IE	56.4	63.2	70.3	74.4	76.4
GR	25.5	41.6	45.5	52.1	54.7
ES	67.8	69.0	68.3	72.8	75.4
FR	83.2	80.9	76.5	74.4	72.1
HR	25.7	26.2	23.8	23.6	24.4
IT	37.1	36.7	35.0	34.9	35.2
CY	56.6	60.8	59.7	65.2	89.4
LV	22.7	23.5	24.1	25.0	28.6
LT	30.9	29.0	29.0	29.2	28.7
LU	158.4	148.7	144.1	140.6	135.3
HU	14.6	14.4	13.7	13.9	14.2
MT	.	.	.	.	.
NL	126.0	127.6	130.6	134.2	141.5
AT	56.8	55.3	52.7	51.2	50.4
PL	35.0	32.5	33.7	33.2	33.7
PT	71.3	72.2	69.1	72.3	75.3
RO	.	.	.	.	.
SI	24.8	24.5	24.5	24.6	25.1
SK	64.6	60.4	56.8	54.2	53.3
FI	81.6	80.8	79.1	79.3	80.5
SE	147.8	155.1	143.0	140.2	135.9
UK	.	.	*95.5*	*91.0*	*92.0*

Number of housing transactions[3]

Per 1,000 inhabitants

	2021	2020	2019	2018	2017
EU	.	9.9	10.6	10.0	10.0
BE	12.4	10.6	13.1	11.4	10.9
BG	.	.	.	.	.
CZ	.	.	.	.	.
DK	16.8	15.9	13.9	13.7	13.9
DE	6.7	6.8	6.9	6.5	6.5
EE	24.2	19.5	20.3	19.7	19.7
IE	.	.	.	.	.
GR	.	7.0	9.0	7.4	6.5
ES	.	.	.	.	.
FR	.	15.2	15.9	14.4	14.5
HR	.	0.8	0.8	0.7	0.6
IT	12.6	9.4	10.1	9.6	9.0
CY	.	.	.	.	.
LV	11.4	9.7	10.7	10.3	10.3
LT	14.2	12.0	12.8	12.2	11.5
LU	16.2	16.6	17.6	18.8	18.6
HU	.	13.7	16.1	16.8	15.7
MT	14.9	11.2	13.6	13.6	13.2
NL	.	.	.	.	.
AT	9.6	8.9	8.9	8.9	8.4
PL	.	5.4	5.6	5.6	5.0
PT	16.1	13.4	15.1	14.7	12.6
RO	.	.	.	.	.
SI	6.6	5.5	6.8	6.7	7.4
SK	.	.	.	.	.
FI	.	.	.	.	.
SE	.	.	15.9	15.5	16.5
UK	.	.	.	.	.

Source: ECB, Eurostat.

[1] *Housing loans are defined as housing loans to the household sector.*

[2] *Domestic lending in all currencies; year-end loan stocks in % of net disposable income. The figures refer to the share of the household sector in %.*

[3] *Property acquired by households.*

Note: EU-28 including the UK. Sources of international organizations are used in this table to facilitate comparison. This is why the data for Austria may deviate from the data provided in the section on Austria's property market. "." indicates missing values.